

THE ELEMENTS
OF
MODERN DRESSMAKING

Miss J. E. Davis

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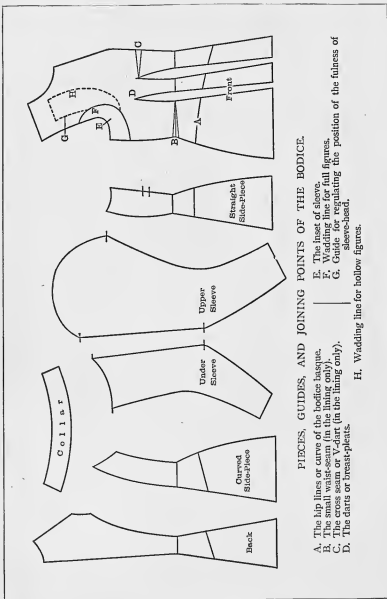
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THE ELEMENTS OF MODERN DRESSMAKING







PIECES, GUIDES, AND JOINING POINTS OF THE BODICE.

- A. The hip lines or curve of the bodice basque.
- B. The small waist-seam (in the lining only).
- C. The cross seam or V-dart (in the lining only).
- D. The darts or breast-pleats.
- E. The inset of sleeve.
- F. Wadding line for full figures.
- G. Guide for regulating the position of the fulness of sleeve-head.
- H. Wadding line for hollow figures.

THE ELEMENTS OF MODERN DRESSMAKING

FOR THE AMATEUR AND PROFESSIONAL
DRESSMAKER

*Being also a Handbook for the Use of Students and for
Candidates preparing for the Examinations in Dress-
making under the City and Guilds of London Institute*

BY

JEANETTE E. DAVIS

PRINCIPAL OF THE WOMEN'S WORK DEPARTMENT OF THE MANCHESTER MUNICIPAL
TECHNICAL SCHOOL, REGISTERED INSTRUCTOR UNDER THE CITY AND
GUILDS OF LONDON INSTITUTE ETC.

WITH NUMEROUS DIAGRAMS

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P R E F A C E.

It is the design of this manual—which is intended mainly for the use of the professional dressmaker and apprentice, the private student or amateur, and those training as teachers—to present, in plain and simple language, the broad elementary principles upon which the art of modern dress-making is based, and to show how those principles may be best applied in practice.

The writer has devoted herself for many years to the study of the subject, and her long and special experience as the teacher of large and varied classes, and in the successful training of many teachers now engaged under the various County Councils, has ensured her a sound knowledge of its principles and a thorough grasp of their application to practical work. The manual, therefore, embodies in brief form the methods of working in general use, and which have been found by the writer to give the best results, whether the aim of the student has been professional or to add to her personal accomplishments and domestic skill; and it will, she hopes, be found equally useful to all who are engaged in the study and practice of the subject, no matter under what system they have gained their knowledge.

It is the special aim of the writer, in the chapters devoted to "Bodice Making" and "The Gored Skirt," to set forth

simply, yet intelligibly, those principles which underlie all changes of fashion, and to make clear the meaning and reasons of the many changes of method in making-up employed in turn by the modern dressmaker, and the suitability of each method to the special nature of the material selected or to some particular feature of the styles in vogue.

The chapter on "Dress Materials" aims to make more clearly understood the way in which dress materials vary in nature of fibre and in the variety of yarn, weave, etc., and the consequent different manner and treatment which they require in making-up. The range of dress materials is, however, so wide and so constantly changing, that it is not possible, within the limits of a handbook, to do more than treat the subject generally, and endeavour to include such standard materials as are at present in vogue.

In preparing the manual, the requirements of the examinations in dressmaking of the City and Guilds of London Institute have been steadily kept in view; and candidates will, it is believed, find that the particulars detailed in the following pages are set forth with a degree of exactness likely to prove helpful to them in their preparation.

The writer will welcome any communications having for their object the improvement of the book.

WOMEN'S WORK DEPARTMENT,

MUNICIPAL TECHNICAL SCHOOL, MANCHESTER.

May, 1894.

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THE ELEMENTS OF MODERN DRESSMAKING.

CHAPTER I.

BODICE MAKING.

Points of a Well-cut Bodice—Cutting and Fitting by Measure—The Pattern—Lining—Cutting out the Material—The Different Kinds of Stuff—The Tracing-Wheel—Pairing the Pieces—Wadding the Fronts—The Office of Wadding—Tacking Out—How to Avoid Wrinkles in Fitting—Stretching: Materials requiring Special Attention—Putting Together the Pieces—The Cording—Cutting on the Cross—Seams—Collars—Management of the Sewing-Machine—Needles and Threads—Machining—Removing the Tacking Threads—Neatening the Inside Seams—Binding, Overcasting, and Turning in Edge to Edge—Pressing the Seams—The Use of Sleeve-boards—The Iron—Fastenings—Turnings—High-class and Inferior Modes of Finishing—Button-holes—The Sleeves—Cuffs—The Turnings of Arm-holes and Sleeves—Setting in the Sleeve—Setting on the Collar—The Belt—Preservers—The Watch-Pocket—Sewing on the Buttons—Inside Finishings.

THE modern bodice exacts from its maker a degree of skill in cutting and manipulation in making probably never before required for any style of garment worn by woman. It must enhance every beautiful line and graceful curve of the figure by well-placed seams, and be close-fitting at all parts, without being tight enough anywhere to interfere with entire freedom of movement in every direction;—it must cling to the figure like a well-cut glove, not only fitting

it perfectly when in repose, but following every movement almost as the skin does; yet there must not be any appearance of undue closeness or strain to offend the eye, nor must there be any restraint upon the free action of the organs of respiration.

Modern women are far more sensible than their mothers, in that they know how the best effects as regards appearance are obtained by judicious arrangements of lines and curves rather than by "pinching"; and the tightly-laced waist is becoming less and less fashionable. It is a question whether the dressmaker *as a dressmaker* feels this altogether an improvement, as the waist still has to sit clear and close and without a wrinkle: there are times (and stuffs) when all her skill and thought are needed to ensure this.

The standard modern bodice fastens down the centre of the front and extends some inches below the waist, is usually finished as a peak or point at the front (the point varying from four to six inches long below the waist), and from it rises in a graceful curve over the hips. Some styles run down to a point at the centre of the back also, whilst others have the lower parts of the back cut into various fancy shapes, each of which has its time of favour in popular fancy and then dies away and is seen no more.

The modern bodice has a great many seams, all so placed that they break the width of the body to the eye, at the same time adding to its apparent length, and on the skilful placing and manipulating of these seams much of the grace of the fitting depends, it being quite possible to clothe the body in a garment that fits closely and yet makes it look thick and ill-proportioned, whilst another bodice of thicker material is easier to wear and yet adds to the grace of the wearer's figure instead of detracting from it (see page 52).

At one time it was considered impossible to cut and fit for women by measure, and some of the old slipshod notions of fitting by cutting out a bodice from a pattern "near enough" to do, and then completing the fitting by pinching

up here and letting out there have yet (now and again) to be met and combated; but as a rule the modern dressmaker knows the value of fresh-looking work, and takes the utmost care to have her pattern correct in every detail before venturing on the stuff.

The numerous methods of fitting in use require a separate volume for their elucidation; but by whatever method the pattern is produced, the making-up which follows must be done in the same way. A large proportion of the present cutting and fitting is done by measure, the cutter taking a set of measures from the customer and drafting or drawing out a pattern by using the measures according to a certain set of rules called a "system," employing various tools to assist in its production—sometimes a tailor's square, sometimes a chart, sometimes sectional paper.

A word about *perfect systems of cutting*, which will do away with any necessity for trying-on, may not be out of place: every dressmaker hopes to find one, and learns system after system in the vain endeavour. If such a thing were possible, tailors would have discovered it before this; the costliness of the material they work upon, and the difficulty of making alterations upon firm cloth, as compared with soft dress materials, would ensure their straining every nerve to master knowledge so very desirable and essential; and the really marvellous fitting without trying-on which is done by many dressmakers as well as tailors would seem to declare that the knowledge *has* been mastered; but those same tailors and dressmakers know that the risk of alteration being required has always to be faced, in spite of careful measuring, of a pattern bodice at hand to compare with, and of the most minute care having been taken with every step of the work from first to last. It is well for less experienced workers to be very careful and painstaking, and not to expect too much from the cutting only. Perfect cutting must be followed by perfect making-up if everything is to be perfect throughout, and such perfection cannot be ensured as a matter of course

to every worker, be she clever and experienced or altogether otherwise, simply by the cutting-out.

The pattern gives one half of the bodice, from the centre of the back to the centre of the front, and whether drafted, moulded, or bought from a pattern-modeller, consists of a certain number of pieces—namely, the back, the curved side-piece, the straight or under-arm side-piece, the front, the upper sleeve, the under sleeve, and the neckband or collar.

Two pieces of stuff and lining are cut for each one of the pieces of the bodice pattern, and as these must be cut from the material in such a way that the right sides of all shall be outside and yet each piece shall be in its proper place, various rules for placing them on the stuff and lining before cutting out have been formulated, to assist in giving certainty to the inexperienced and timid, and to economise time and material in the work. It must be remembered that, by whatever system produced, the pattern comes out simply a bodice pattern, with the usual backs, fronts, etc., and that the same rules for making-up apply, with very few exceptions—to be afterwards noted—to all patterns.

The paper pattern to cut from may be with or without turnings. If the latter, it should either be drafted to slightly closer width measures or the fitting-lines cut entirely away, as the width of the wheel in tracing outside a pattern makes a difference, very slight on each seam, but amounting to a very distinct enlargement of size when the bodice is put together. This does not apply to the darts, which should not be cut out in any case unless the lining is one that cannot be traced by wheel or stiletto. In the frontispiece is shown the shape of each piece of the bodice pattern as usually cut, and the names usually given to the parts. Certain lines are common to all systems, and certain marks in addition to the outlines are necessary to join the whole together satisfactorily. These marks are :—The waist-line on all pieces ; some mark to indicate that side of straight

side-piece which is to be afterwards joined to the front (two small lines are shown on Plate); some guide for the position of the wadding in the front, shown by dotted lines; a mark on the arm-hole curve to show where the inside seam of the sleeve should be placed; the pleat or dart to shorten-up the centre of front edge; some guide to regulate the position of the sleeve-head fulness, the elbows and joining-points of both upper and under sleeve, and such design lines on the pattern itself as will be needed to show where the trimmings are to be placed—as yoke-lines, vest-lines, etc.

The selection of linings and material is treated of under "Linings" (page 86), and "Materials" (page 164), and the manner of estimating the quantity required under the head "Quantity, Cost, and Price" (page 182).

Presuming that the selection has been satisfactorily made, the work proceeds without interruption.

Lining is always sold doubled, and on this the pieces of the pattern should be placed with all the waist-lines, except that of the front, straight across with the weft thread; that of the front should be allowed to take its natural slope, and each part of the sleeve placed with the back seam from top to elbow straight down the selvedge way of the lining, to throw the lower ends on the cross (which makes a closer fit to the lower part of the arm). Each piece should be pinned down previously to cutting out, care being taken to put the pins between the fitting-lines, and not across them, that in the after wheeling-out they may not need removing.

The front itself should be laid about two inches back from the selvedge of the lining, and, in cutting out, the turnings outside the front should not be shaped, but left with the selvedge. The same rule of not shaping-out applies to the back centre seam. With these exceptions each piece should be cut out with a fair inch of turnings outside each outline, making, of course, such differences as may be required for the fancy basque at the back of the bodice, if such backs are fashionable.

The *material* should next be cut out. This, like the lining, should always be doubled where it is possible to cut it so, as the two pieces can then be cut together, and thus the risk of cutting two pieces of material for the same side of the dress may be avoided. If the material is double-width, it is already folded face to face or back to back; but if it is single-width, the pattern should be laid out on the wrong side, the piece cut off, and moved down the length to bring it as if folded face to face, and the pieces cut double.

It is not advisable to begin dressmaking on a striped or plaid material, and velvet is difficult to manage in several respects; the details will therefore be given as for a plain self-coloured serge or cloth, where there is no pattern or pile to perplex and to complicate matters, though there is often a slight "ply" or nap on cloth, which must be considered and remembered in the cutting out. The pieces of lining should be placed on the stuff with the pattern still pinned to them, and the material cut out round the lining. In placing a pattern on lining or material, the lengthway of each piece must be placed the same way as the selvedge; in other words, the length of the piece must not be laid across the lining or stuff. On the material it is also much the best not to place any piece reversed, but (even with reversible stuffs) to keep the upper end of every piece to the one end of the cloth, or one piece of the dress may sheen differently from the others when it comes into wear. This rule is not so imperative with the lining, but it is well to observe it wherever it is possible to do so.

Stripes, plaids, and fancy designs all need careful matching, varying with the design; velvets and plushes must be cut with the pile to smooth upwards. Diagonals and even twills look better if all the pieces are cut to face the same way, and both cloth and satin have a slight nap or ply which should smooth downwards.

When cutting out good woollen stuffs, the scissors should be kept slightly outside the margin of the linings, as such

stuffs draw up slightly under the scissors as they are being cut, and some small allowance should be made for this.

Tracing the fitting-lines of the pattern through the doubled lining only—the stuff being put quite aside—comes next in order of working. This is now almost entirely done by tracing-wheel, which is far more expeditious than the old plan of pricking holes half an inch apart with stiletto or scissors-point. Respecting the management of the wheel, a few words of caution are necessary. Tracing should be done slowly, going along with an occasional “backward and forward” movement of the hand, that the perforations may be clear and distinct below. In wheeling out the waist-line the wheel should be put down below it, and in wheeling out the length-lines it is necessary to remember that the waist is the smallest part of the pattern. In tracing the long body-lines there is always the inclination to turn the wheel before arriving at the waist, and thus make the pieces both slack and short-waisted. Beginners should be very careful indeed in this respect, or they will increase the waist size of a dress three or four inches by this small inattention only. In tracing each piece it is best to begin with the waist-line first, then to cross the hip curve, and come up the “spring” or hip-lines to the waist, but not to continue up to the top of the seam in one run. It is better to stop at the waist-line, and raise the wheel, and then put it down again *inside* the fitting-line, and continue on to the end of the seam. This plan ensures the waist coming out the right size. At all other parts the tracing should be on the fitting-lines themselves, neither inside nor outside, and the only reason for lifting the wheel at the waist is to avoid turning it there, which would add a quarter of an inch of extra size to every seam.

The next step is *the pairing of the pieces*. Each piece of the pattern is removed after the tracing has been done, and each two pieces of the lining and each two pieces

of material of the same shape are paired for tacking out. The two pieces of material should be placed face down on the table, and on each one its own proper piece of lining, face up. Some care about this is worth taking, as inattention here results, perhaps, in the preparation of both sets of lining and stuff for one side of the bodice, with the annoying result that the workers have to undo and do again a full half of their work.

After pairing, the next step is *to wad the fronts*. For this good cotton-wool should be used, and the best quality is the most satisfactory. White should be used for very light dresses, and black or slate for dark ones. The length of cotton-wool should be opened out fully, that there may be wool at one side and the skin at the other, and a piece cut from it the size and shape of the wadding-space on the pattern. The skin side should be laid down on the lining, and (from the right side) secured down with minute catch-stitches put about two or three inches apart. For catch-stitches the needle is put through from the back, and then put back through the same place two or three times (of course, through both the lining and wool), and then fastened off securely. This prevents the wadding from moving, as it sometimes does in home-made dresses where this precaution has not been taken. Then, with a small pair of scissors (the ends of the blades held about an inch apart), the edges of the wadding all round the wadding-lines should be thinned away, picking the top away and leaving nothing but the skin round that part which runs by the arm-hole, and pulling and fluffing it softly down at the other edges, not to leave a hard ridge to show when the dress is in wear. The one thickness of good white wadding is sufficient for an average figure. The darker wools are never so good in quality as the white, so with them a little more may be heaped on; but it must be carefully borne in mind that if more than one layer of wool is used, each succeeding layer should be shorter and narrower than the one below, and

all the edges carefully "thinned" into it. The skin should also be removed from all but the first layer.

Some workers prefer the wool against the lining and skin against the outside stuff; in this case it should be thinned off before being put into place. For very loosely woven cloths (such as hop-sacks) it is advisable to cover the wadding with a piece of the outside stuff to prevent its working through. With washing-dresses and those of transparent materials the wadding is not put between stuff and lining, but is made separately between two shaped pieces of sarcenet and tacked round the arm-hole after the dress is entirely finished, in much the same way as dress-preservers are put in. Many high-class dressmakers wad all dresses in this way, and many wearers prefer it to the other. Tailors wad the lining and secure it down with several rows of machine-stitching, following the shape of the arm-hole.

That the use of wadding in dress bodices is to fill up the natural hollows of the figure is not well understood, and many avoid its use altogether, under the impression that it is a first step down the path where truth ends and falsehood begins. This, however, is not the case. The wadding has a definite office, and, rightly used, it is infinitely preferable to the wrinkles that will certainly form down from the shoulder unless the bodice is made uncomfortably narrow in the chest, which is bad equally for health and appearance. Manipulation of the material alone, which can be resorted to for all other hollows, must be cautiously used down the front of the shoulder, or it will seriously interfere with the organs of respiration by contracting the chest, in addition to drawing the figure over and establishing a habit of stooping. The chest should have free scope, and in figures which are very hollow down the centre of the shoulder two or even three thicknesses of wool may be used with advantage to ensure this, and yet keep the outside material smooth. Each succeeding layer, however, should be shorter and narrower than the last, and the wadding itself should be kept strictly

within the bounds naturally assigned to it by the formation of the figure, and not allowed to spread outside them.

The hollows of the figure are down the front of each shoulder and round and under each arm, where the rise of the bust falls away; and here the wadding is needed, though a few well-developed figures show no hollow at the shoulder, and only require slight filling-up round and under the front of the arm.

On the frontispiece both wadding-lines (marked *H* for hollow figures and *F* for full ones) are clearly shown. The *H* lines run as high as the turn of the neck, and here the wool must be carefully thinned away, or it will show thick and full on the slope of the shoulders: good fitting and making would endeavour to avoid this, and to keep the pretty natural curve there, which is accomplished by stretching, as explained below.

The space to be wadded is from two to two and a half inches wide across the top (in the centre of the shoulder), and the wadding should be kept from touching the neck curve or upper part of the arm-hole near the shoulder-joint, which is always bent a little forward in hollow figures, and is really one of the limits of the chest hollows. The *F* lines only touch the arm-hole curve at about four inches above the level of the arm-hole depth, and sweep round to the under-arm seam at a depth of about an inch and a half.

After the pairing comes the *tacking out*. Each piece of lining is already laid on its own piece of material, and fastened to it with a couple of pins; it is next to be tacked down to it (using thin tacking-cotton, generally white or pink) in the pricked outlines. Inch stitches may be used on the long, straight lines, but smaller ones are necessary round the curves. All the stitches, both under and over, should be of equal length, and all the marks which were traced should be tacked out, except, of course, the wadding-lines, which have been already used.

Expert dressmakers stretch certain parts of the outside

material a good deal down the length of the bodice, but it is unwise for anyone to attempt it until she quite understands why and where it is done. It is generally admitted that the outside material should be stretched a little to ensure close, clear fitting and freedom from wrinkles, as woollen dress stuffs are more elastic and yielding than the linings on which they are mounted; the stretching also imparts the quality of "clingingness" to the bodice; but all materials are not equally elastic, and great care must be taken not to impoverish the stuff by stretching too much, and in the wrong direction.

Tacking out should be done in such a way that the lining is loose or full down the length of the bodice at all the hollows of the figure. The positions of the hollows of the figure are clearly indicated by the lines of shading on Fig. 1. In addition to those which have been dealt with by wadding, we find the turn of the neck, the waist, the front edge, and the side-seam of front under the arm. This last place is an awkward part to deal with, even for experienced dress-makers, and to shorten it various devices are resorted to. The little seam shown on the frontispiece, taken up in the lining only and the material smoothed down over it, is one; cross-boning (*i.e.*, sewing in a bone on the slant, from the top of the dart to the bottom of the side-seam) is another; but undoubtedly the most successful way of dealing with it is by cross-cut, which is a method of manipulating the pattern in such a manner as to throw the whole of the side of the front, from the back dart, on the cross of the material. Each different system of

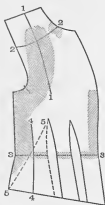


Fig. 1.—1 to 1, 2 to 2, 3 to 3, Stretching for the hollows of the figure; 5 to 5, Cross-boning; 4 to 4, Extra bone in front.

cutting by measure has its own method of producing the cross-cut, therefore it is not necessary to enter into details here.

For long coat bodices the waist seam is necessary; for the short round or pointed bodices at present worn it is sufficient to have some slight curve on the hip seam below the waist, and to cross-bone, or use the simpler plan of an extra bone (the casing sewn to the lining only) between the seam and back dart. The position of the bone is shown by a firm line on Fig. 1, the dotted line indicating that of a cross-bone. The hollow of the front edge is dealt with by using the cross-pleat or V-dart, either pinning it up in the paper pattern before tracing, or sewing it out as a little seam in the lining and smoothing the stuff down over it afterwards. By the latter plan the seam is almost sure to come in the way of a button-hole; the writer therefore prefers the first plan. It is not advisable, for young figures, to cut up the first dart of the pattern to make the cross-dart lie quite flat, as it takes away some of the shaping of the front, but it may be done with advantage for older figures (see page 67). The waist is the principal hollow, and the one where most of the looseness of lining is required; but the slight hollows down the front of the shoulders which have been already wadded have also to be considered, and at the turn of the neck there is also the slight falling-away just above the collar-bone where wrinkles are likely to form. These are all best dealt with by fulling the lining to strain the stuff out over it. To rightly understand why this is so, we have to remember that in covering curves with successive layers of stuff, inward curves or hollows (as the waist) require the longest layer first, and each successive layer has to be shorter than the last (as the hollow gets, in a sense, filled up) if it is to sit smoothly and clearly.

With outward curves (as the bust) the reverse is the case, and each succeeding layer should be longer than the last, or a sense of constraint and pressure and drawing down

will be felt, and the outside material will pull up and create wrinkles for want of sufficient length to sit clearly.

One method of ensuring a fit clear of wrinkles is to put the stuff face down on the table and on it place the lining right side up, pin together in two or three places to prevent slipping apart, and tack out in the fitting-lines over the edge of the table or over the hand, working from the top downwards, and returning to the top to start each fresh length. This uses up the length of the top piece more rapidly than that of the one underneath, and will make the lining slightly full for the material all down the length. (See "Easing," page 95.)

Another plan is to pencil or tack out the fitting-lines, place the lining face down on the table, with the material right side up, upon it, smooth the latter out very much and pin down here and there, baist all over the surface without regard to run of seams, then turn over and tack out in the fitting-lines.

Still another plan is to carefully cut stuff and lining exactly the same size, place the stuff face downwards on the table with the lining upon it, see that all edges match exactly, and then draw the lining back a quarter of an inch from every edge, pin down by the turnings and tack out in the fitting-lines, keeping the fulness of the lining inside them.

Again, there is the following method: The stuff is placed face down on the table, the lining right side up, upon it, and a few pins put in down the front fitting-line from neck to bust to keep the lining in place. Half an inch of lining is pinched up in a slanting direction from the turn of the neck to the arm-hole; the extra fulness thus made is gradually distributed from this point round the neck and arm-hole curves. Next, a similar half-inch pinch is taken up in the lining at the centre of the shoulder as far down as the bottom of the arm-hole, and the fulness distributed along the front shoulder seam.

The lining is pushed up a very little in the length over

the bust—only enough to draw out the extra elasticity of the stuff, and another pinch taken all across the waist-line, the fulness to be distributed over the space of an inch and a half to two inches above and below the line, but to be kept full close to the waist itself.

The front of the lining from neck to bust may then be moved slightly back, just enough to give the material a slight straining across the chest, and then the tacking out done in the fitting lines, the work being held, lining upwards, over the hand, to make the full lined sit clear whilst the stitches are being put in, as no little pleats should be made to use up the fulness; when the tacking out is done the stuff should be gently stretched to the size of the lining. This method is practically stretching the material on the lining, but only at the points where such stretching is required by the formation of the figure, and the quantity stretched out can be regulated for each part. The darts should be cut up the centre line to within an inch of the top, and the material on the "tongue" between them, and also on the part of the front between the back dart and first seam, stretched downwards and backwards in the direction of the dotted "cross-boning" line (5 to 5) on Fig. 1.

All the other body pieces need only the half-inch pinch at the waist; the fulness distributed a little above and below it, but the greater part close to the line itself, and the rest of each seam tacked over the hand or table-edge to ensure smoothness; the sleeves are better not strained at all, as they are loose on the arms, and the strained stuff not being held down by the curves of the figure and close fit, would simply draw the sleeves up and make them a trifle shorter.

It is not advisable to stretch width as well as length, as the two tensions counteract each other, and so are likely to pull the bodice out of shape, and the strain may make the stuff give at the seams if the fit is very close and the downward stretching has been well done; but the outside stuff

should never be loose—if one is to be looser than the other, it ought to be the lining.

On Fig. 1 will be noted three firm lines showing the lines corresponding with the hollows, and consequently the position of the fulness of the lining. It must be borne in mind by the worker that different materials do not possess the same degree of elasticity; loosely woven diagonal serges are better for being stretched a full inch down the length of each bodice piece, but a hard plain silk or silk velvet will not yield a quarter of an inch unless the seams fall on the cross of the fabric. From a half to three-quarters of an inch is the average amount that can be stretched out of ordinary woollens, and care must be taken in drawing down those seams that are quite on the straight of the thread, or an awkward tear may result.

Subjoined is a list of materials that require special attention to some particular detail when they are being tacked to the lining. Different tacking stitches are given on page 98.

Owing to their elasticity, as well as the form of the figure, all woollen materials should be slightly stretched down the length when they are being tacked out, and the tacking may be done in the fitting-lines without detriment to the material if ordinary tacking-cotton and fairly fine needles are used. This method of tacking out has the great advantage of preserving the outline to the most inexperienced eye as long as the threads remain in the work, and it is therefore invaluable to beginners. Woollens woven with a twill are more flexible and stretch more than plain ones, and therefore must be put tighter on the lining; one inch is not too much to stretch a soft, thick diagonal down the length, three-quarters of an inch for ordinary twills, half an inch for plain woven stuffs.

Open textures, such as woollen canvas or woollen grenadine, should be stretched with great caution, lest the designs are pulled out of shape, and the yielding qualities of crepons should be judged by the firm part, not the crêped ones, as

if the latter are unduly strained the beauty of the fabric is lost.

Low-class woollen goods are adulterated with cotton and other hard, unyielding fibres, or, being often only shoddy, are not able to bear much strain. Such goods should only be stretched very little, and that with great caution, as they tear easily. Cotton stuffs are harder and less yielding than woollen, and should not be stretched much—from a quarter to half an inch down the length is sufficient—and twills in cottons, as in woollens, are more yielding than plain goods.

Pile fabrics, whether of cotton or silk—as corduroy, velveteen, velvet, plush, etc.—do not yield much unless cut on the cross, so must not be much stretched, and every care must be taken not to spoil the pile; fine cotton and needles should be used, and the tacking out done in the turnings outside the fitting-lines, the lines themselves being pencilled.

Soft crepons and crapes of every kind, cotton crape, crape cloth, *crêpe de Chine* or soft crape, should be handled lightly and not much stretched.

Hard mourning crape is seldom used for the whole of a fitting garment, but is often laid on as a plastron, vest, revers, etc. It should be handled with the utmost lightness and delicacy of touch; the least degree of stretching is bad for its after-wear, and spoils its appearance at once.

Plain silk does not stretch much unless on the cross, and shows pin and stitch-marks; it is necessary therefore to take the same precautions as for velvet, and to tack with very fine needle and cotton. Corded silks, ottomans, poplins, bengalines, etc., come under the same head, and should not be made to fit extremely close, as the cords, being already pierced by the needle in the machining, are ready to fall apart under strain. The same applies to all corded fabrics, whether of silk, cotton, or wool.

Twilled silks yield nearly as much as woollens, but split

quickly if unduly strained down ; therefore they should be handled with judgment and caution.

Net, lace, gauze, muslin, and thin goods generally should not be stretched on the lining at all ; they are seldom made in quite plain styles, as they are too thin to keep in shape.

The experienced worker, who knows her lines thoroughly, can afford to dispense to a large extent with tacking out, and many simply baist out all the pieces to the lining (stretching them well over it) and join immediately in the pricked fitting-lines, afterwards tacking out all the outlines of neck, fronts, arm-holes, waist, etc., to preserve them as long as they are required ; but the inexperienced worker should carefully avoid following her example, or she will certainly spoil the work by losing some of the lines or putting the wrong ones together, and not yet having judgment or knowledge by which to detect and correct her errors, a hopeless fiasco is the usual result of such an attempt.

The great objection to tacking in the fitting-lines—and it *is* a great objection—is the number of tacking threads at every seam to machine over and draw out afterwards. Where, however, it is desired to combine the advantages of both methods without the disadvantages of either, it is a good plan to tack out and tack together in the fitting-lines, using a differently coloured cotton for each, and after the trying-on to remove the tacking-out threads from the seams *before* machining, leaving only the tacking-together threads to be drawn out afterwards. In this case the fitting-lines of the arm-holes, neck, waist, and front-edge lines should be separately tacked out.

After the tacking out comes the *joining together of the pieces*, unless some of the seams are to be corded, in which latter case the cording should first be tacked to the lines requiring it.

There is no doubt that the fashion of piping or cording bodice seams had its origin in a real need, and that its utility (based on something deeper than fashion) cannot be

questioned where the sewing-machine is not available. When all the seams were hand-made, there is no doubt that, however careful the worker and close and firm the stitching, there were difficulties to contend with in the nature of material and lining, and in the way the required curving of the seams would run at every imaginable angle across warp and weft, that would at times prove insurmountable, and make seams to which the "pull" of the stitch would give an appearance very far from pleasing to the eye (especially where the fit was close), after the bodice had been worn a little. All the seams where this "pull" of the stitching was likely to show were corded: the curved back-seams, the arm-holes, the collar, the waist; and the cording, being ornamental in itself, would naturally be carried on as a pleasing finish round those parts which did not specially need its soft roundness to help on to a smooth effect.

Single cording is made from strips of material an inch wide on the cross, and tacked over piping-cord, which is soft and evenly woven, and can be procured in white and black. The cord is laid in the middle of the strip of stuff, and the edge turned over it and tacked along quite close up to the cord, care being taken that the outside material does not twist in the slightest degree, as its absolute smoothness and roundness makes the beauty of the cording. It is then tacked *very easily* to the fitting-line of the seam to be corded—to the backs if for the curved bodice seams, to the arm-holes of the bodice if for sleeves, to the neck, or all round the collar itself for the neck, after which the joining is done in the usual way. The arm-hole cording is started under the arm, where the join will show least, and the ends of the cord are cut away; the ends of the casing are left long, and either crossed or passed into one of the bodice seams. Practised workers can make the cording and tack it into place as they go; when it was in general use many workers made it and put it in with the seam whilst

joining, but the plan has the danger of tightening-up the seams by drawing out the very yielding cross of the strips in which the cord is enclosed. This was a very common fault, and one to be guarded against. Corded seams are not likely to be revived, excepting as a temporary fashion, as they do not pass very freely under the sewing-machine, and unless the stitching is quite close to the cord its best effect is lost. It would very probably be found least troublesome to stitch corded seams entirely by hand.

The strips for bodice-seam cording should be an inch wide to allow sufficient material for inside neatening, but those for the edges of cuffs, collars, or any part which is to be afterwards finished with a silk lining or facing, may be only half an inch wide, as the narrower the strips are, the less chance there is of twisting. It is needless to say that the cording should be stitched, not merely tacked, along the edge before the facing is hemmed or slip-stitched on.

When making cording, the end of the cord should at the start be tacked to the stuff that covers it, as it is extremely awkward and annoying if a sudden jerk brings it all out of its casing, and the whole length has to be opened and started afresh; and to save bulk the cord is cut just short of the length of the seams at the arm-holes and bottom edges, the casing only being left for the turning-up and the setting-in of the sleeves and all finishing.

Cutting on the cross needs great care. The cross or bias of material is neither the way of the warp nor the way of the weft, but a slant across both. The exact cross is the diagonal of a square, the size of the square being regulated by the width of the material. To ensure the exact cross, the width of the material is folded down the length of the side, making a fold on the slant which gives the line of cutting, or true cross. If the material is a twilled one, the line of cutting must run the reverse way—*across* the twill, not with it, otherwise the strips will not hang well for flounces or fold smoothly for bands or cording, but will have an irresistible

inclination to twist and wrinkle, however carefully handled. The width of the required strip should be measured from the cross edge at each end, marked, and a line lightly chalked across, by which it should be cut. If it is preferred to measure up the selvedge at each end, it must be borne in mind that the cross strips come out about a third less than the measure up the straight, and due allowance has to be made for it. All the slanting joins should be made to run in the same direction—that of the warp threads. This must be particularly borne in mind for flounces or any hanging cross-made trimming. In joining cross strips, the edges of each end must not be put evenly together, as in joining strips on the straight, but the points should be allowed to overlap at each end to the extent of the turnings to be taken up in making the join (or about a quarter of an inch). If there has been any irregularity in cutting the strips, and some are wider than others, the utmost care should be taken in joining to keep one edge of the joined lengths even, or the necessary paring down will throw every part out of the true cross, and spoil the appearance of the trimming made from it.

Where only a few narrow cross strips are required it would be wasteful to cut into such a length of stuff as the full corner of double width would take, and a smaller one can be turned over to start the cross, so long as care is taken that both sides of the corner turned over are exactly the same length, to ensure that the strips cut be on the true cross. Double-width material should always be opened before the corner is turned over; if cut without opening, a series of V-shaped strips, instead of bias ones, is the result.

All seams should be joined by the waist-lines, and the pieces put evenly together, neither fulling nor stretching beyond what is just necessary to bring the lining (which was fullled at the waist in the tacking out) back to its own length. It is not a bad plan to pass

an iron over each tacked-out length or piece before putting together, to flatten out or stretch the outside stuff to the length of the lining; but the lining itself should not be stretched. All joining should be from the back forward, the backward piece being held towards the worker whilst the joining goes on.

All tacking together should be securely started and finished, and should not begin and end at fitting-lines only, but should be carried quite to the edges of the turnings at the top and bottom of every seam. The two backs are put together by the waist- and neck-lines, and first pinned and then tacked together in the fitting-lines (the pricked outlines) which were previously "tacked out." If the tacking out and joining are nicely done, the neck curves will run together in an unbroken line across the top.

Next (the back being held to the worker and the curved side-piece away from her) the two should be joined together from the waist upwards, care being taken to join them evenly, and not to stretch the one and full the other. Plenty of pins must be used, and the whole seam pinned together before tacking. At the top of this seam the unbroken arm-hole line should begin to form itself again; but if by any mischance there should be difference in length at this seam, the difference must run out at the arm-hole and the waist be left untouched, unless the system of drafting counts the back curve to be slightly full to the top of the curved side-piece: where this is the case the rules of the system should be followed. If this is done, the fulling should be placed where it will accommodate the shoulder-blade, *i.e.*, at the most rounded part of the curved side-piece, about two inches below the top of the seam, and be kept within a space of about two inches below that.

Occasionally corded curved seams are stitched too; the backs are corded, and the curved side-piece then turned under exactly in the fitting-line and placed upon it, close up to the cord; a line of stitching is carried quite close to the edge of

the fold—sometimes two or three—instead of an inside seam being made in the ordinary manner. When this fashion obtains, the arm-holes would be stitched over the sleeve-heads and the back shoulders over the front ones.

Next, the small straight side-pieces should be joined to the curved ones, also from the waist upwards. Where the drafting is by any system which does not produce the body-pieces already separated, the straight side-piece at this seam may happen to come about a quarter of an inch short at the arm-hole end, unless the lengths have been carefully checked off first, but it may be allowed to pass; finally, the front must be joined to the straight side-piece, at the top of which the arm-hole line should run on unbroken again.*

The back dart must be pinned by the waist-line, the back part of it being gently stretched down to make the two lines of equal length. It must be first pinned and then tacked together. The front dart can be simply folded down its centre line and tacked together. Both darts should be very gently tapered off at the top, and it is easier for the worker to close them before joining the fronts to the rest of the bodice.

The shoulders should be put together at the neck end, great care being taken to make the whole neck-line run in an unbroken curve. Neglect of this precaution will cause the front of the bodice to pull to one side after it is finished. Of course, if the neck has been lowered in the drafting,

* This rule dates from the time when the half-bodice was cut in three pieces—back, curved side-piece and front. In this cut, the seam under the arm, being quite straight down, would be equal in length on both sides. With the four-piece cut, the line of the curved side-piece, falling farther back on the figure, is more on the slant, and consequently longer than the perpendicular line of the straight side-piece to which it is joined; and unless the lengths of the two lines are carefully balanced by lengthening the shorter one, there is the slight difference in length to deal with, which is easiest done by letting it run off at the arm-hole, as, if joined from the arm-hole down, it breaks the run of the waist, and so puts the whole of the bodice out of balance.

the worker will be careful to take the lowered neck-curve of both back and front of the pattern when wheeling out.

The sleeve should be put together by the inside seam, which must join exactly at the top; any difference of length should run out at the wrist end. The back seam of the sleeve should be made to "lie," that elbow-room may be ensured. The sleeve, with the inner seam joined, must be placed flat on the table, the under-part being uppermost. The upper is considerably wider than the under, and the fitting-line of the upper must be lifted over to meet the fitting-line of the under, a little above the elbow, and the two pinned together to the top of the seam and down to within half an inch of the elbow-mark; then, half-way between the elbow and the wrist-line, the same "bringing-over" must be repeated—*i.e.*, the sleeve must be laid flat, and the back fitting-line of the upper sleeve brought over to meet that of the under. The seam must be pinned down to the wrist-line (this line will probably not run exactly together at the back seam), and then pinned up to within a quarter of an inch of the elbow, where it will be found that the upper-sleeve is now a little too long for the under-sleeve. This trifle of extra length must be gathered and fixed at the elbow-point, the fitting-lines being closed together above and below it.

If the sleeve is now laid down on the table, it will be found that, except for the little fulness at the elbow, it lies quite smooth and flat, as if upper and under were the same width, and the gathering at the elbow has made a tiny bag in which the elbow can move freely. This bag is necessary in close-fitting sleeves, and can only be put into its proper place by making the sleeve lie. If the sleeve is joined down the back seam, from top to bottom, there will be no elbow, and it will not lie flat, but will twist from inside to outside in a very ugly way; and if it twists when off the arm, it will certainly twist upon it. If the sleeve is cut with upper and under of equal width at the elbow (as a

coat sleeve), the gathering is not needed, as a little extra curve on the seam gives the required room for free movement; but there should always be a little gathering at the elbow with sleeves of the present fashion—*i.e.*, with narrow under-sides.

Collars have changed very much within the last twenty years. At one period the neck-band was simply a narrow binding on the cross sewn to the outside of the neck of the bodice, turned over, and neatly hemmed along the inside. With firm or hard stuffs a lining of soft silk or saracenit was substituted for the piece turned inside, and the bottom edge of the outside cross-strip stretched a little to give it curve. It was presently found that a strip on the straight, slightly curved at top and bottom, would sit better and was less inclined to wrinkle than the crossways strip, especially if it had a little stiff muslin tacked between. This class of collar is made and set on as follows: The outside material, the lining, and the stiffening—consisting of one or two thicknesses of white muslin—should all be cut with at least a quarter of an inch of turnings all the way round, and laid, lining face up, material face down, upon it, and the stiffening on the back of the material. These four, so arranged, should be machined along top and ends at the distance in from the edges allowed by the turnings, the line of sewing pressed, the top edges of the turnings slightly snipped and the corners pared away, the lining then turned over and the edges pressed along. The collar is now set on to the fitting-line of the neck, using the quarter-inch of turnings and beginning from the back centre seam (to which the middle of the collar is laid), the right side of the collar to the right side of the dress, with the collar towards the worker. From the centre the collar should be pinned round towards the front, pinning it by the neck-curve through outside material and stiffening, and it should end just at the fitting-line at front, to do which the collar must be put on a little easy for the neck of the dress. It

should be firmly tacked, and then machined along just in the fitting-line, after which the tacking threads are removed, the turnings snipped, and the lining of the collar hemmed down over the sewing to make all neat.

The increased fashion of wearing tailor-made dresses helped in the stiff collar. Tailors like work turned out firm and smooth, and their collars are lined with three or four thicknesses of French canvas, each strip rubbed down with a film of soap, and the whole then ironed together. This makes an excellent collar-stiffening, as it is firm and smooth without being easily cracked. Dressmakers have substituted upholsterers' buckram (a firm, thick, drab canvas, much stiffened) for it; but this needs covering if a firm, smooth collar is to be made, though it is not infrequently cut to size and the outside material tacked over it without any further preparation; this makes the outside material look very poor if it is well strained over, and soon cuts through top and ends. Collar-stiffening, woven on a slight curve, can now be bought in various widths, and is an excellent invention of its kind. Stiff collars are made as follows:—

The collar pattern should be made with the centre of the back to a fold of the paper, and cut out double and by the fitting-lines. It should then be opened and laid on the buckram with the back fold to a thread, that the fronts of the collar may be equally on the cross, pencilled round, and the buckram also cut to the fitting-lines. Two pieces of lining, muslin, or any thin material are then cut, also to the size of the collar without turnings, and put one on each side of the buckram, and either tacked or machined through in a zigzag line from one end to the other. After this it should be ironed through a damp cloth, and slightly curved to the shape of the neck and well dried in the ironing. Properly done, this gives a collar with the firm substance of a starched linen collar, and without the disagreeable crackliness of the raw buckram.

The outside material is cut the same way of the thread

as any other part of the dress, and a quarter of an inch of turnings allowed all round it. This is turned over and herring-boned down (raw-edged) to the collar at top, bottom, and ends, the stitches being taken alternately through the lining machined to the buckram, and through the turned-over edge of the stuff. The material will require slightly snipping to lie easily over the curved-out top edge of the collar, and the outside material should be put on tightly both in width and length.

Two hooks are then sewn to the right-hand end, the turn being a quarter of an inch under the edge of the collar, and two eyes or two silk loops to correspond with the hooks on the left-hand end. The eyes are sewn a quarter of an inch under the collar-end, and the sewing-on is done to the material turned over and the lining on the buckram, not through the buckram itself; and the collar should meet edge to edge at the ends when finished. If silk loops are used, they should not be put outside the collar-end unless it is intended to overlap. They are often worked on the extreme end edge instead of either below or above it, and are then easier to hook but more inclined to gape than if put a quarter of an inch underneath, as eyes would be. Loops are preferred to hooks for a collar-fastening, as they are easier to bring to the hook without crumpling the collar-end, eyes being worse to handle in this respect.

A lining of the same silk or sarcenet used for the other inside finishing is next prepared; cut large enough to ease a little both in length and depth and to give a good half-inch of turnings below. This lining should be either slip-stitched or hemmed to the collar along the top and down each end to within a quarter of an inch of the bottom, where it should be left loose to allow the collar to be freely adjusted to the neck-lines.

When the bodice is all tacked out and tacked together it is ready for the first trying-on (see page 53).

The trying-on being satisfactorily completed, the

machining follows, unless the seams are to be stitched by hand—a long and tedious process, but the only advisable course to pursue if the worker is not possessed of a machine. Shop-work of this kind is very unsatisfactory as a rule, and equally so is the machining of kind friends. Very few people know what careful machining a bodice requires, or, no doubt, more care would be taken; but certainly the best fitting possible can be entirely spoilt by bad machining, and this is particularly to be regretted when great care has been taken and time spent on the previous work of drafting, tacking-out, etc.

The best sewing-machines are those that run lightly, do not make a noise, have not many or complicated arrangements for regulating the tension of the thread either for the top or for the shuttle, and do not readily get out of order. Treadle machines have two great advantages over those worked by hand: they leave the worker's hands free to guide the work under the needle, and the lower wheel, being always a large one, gives many more stitches for each movement of the foot than the smaller wheel of the hand-machine gives for each turn of the hand, thus making a saving of time and labour.

Each make of sewing-machine must be managed according to the rules issued with it, which are formulated according to the principles of its construction; with these each worker should thoroughly familiarise herself, such details as the threading, regulation of tension, etc., being also peculiar to each make of machine.

It is, however, a general rule to keep the machine well-oiled and clean. Ordinary machine oil should be used for the purpose, as olive oil clogs, and all surplus oil should be carefully wiped away before any work is brought near the machine. Should it happen that it has run dry or works heavily by reason of being clogged, it may be "oiled" with paraffin oil and worked briskly for a few minutes, wiped off and properly oiled, when it will be found in good working order again.

The needle and cotton or silk should be suitable in point of thickness to the material to be sewn, and a blunt needle should never be used, as it makes larger holes in the work than the thread it carries will fill up. No one would use a blunt needle for hand-work, but machine needles are frequently kept in use for a very long time—sometimes, indeed, until attention is drawn to their bluntness by the spoiling of a piece of work. The needle should be well-pointed and fine, sufficiently large to carry the thread easily, but not larger than that.

Cottons and linens are machined with cotton, high-class woollens with silk, ordinary woollens with cotton for the seams and silk for outside stitching; velvets, silks, etc., with machine silk. This is beautifully smooth and strong, and does not make a bulky seam. The cotton for ordinary woollen dresses should be about 40's size and unglazed; it should match the dress in colour if possible (though black is often used for dark stuffs, claret, myrtle, navy blue, etc.), and be smooth, even, and strong. Where cotton cannot be matched to bright-coloured woollens, expense should not be made a consideration, but machine silk to match always used, as lighter or darker cotton shows very distinctly in the seams. The thread on the shuttle bobbin, whether of cotton or silk, should be very carefully and evenly wound, and the tension of both threads quite equal, or the stitch will not be perfect. Some sewing-machines require a finer thread in the shuttle than for the needle, and where this is so the finer thread must be used or silk substituted for it (as it runs smoothly); but where a thread of equal size can be used it is distinctly preferable, especially for seams, where the strain on the thread is equal from both sides.

Cotton soon looks shabby and loses its first freshness of colour, so it is never used for ornamental machine-stitching, such as hems, edges, etc., or any part where the stitch is to show; silk is correctly used for such outside work on all but cotton dresses.

The silk is very often used either for the needle only or the shuttle only (the face of the work being up or down accordingly) by economical workers; the tension of both threads must then be very exact, or some of the cotton will be brought to the face and so spoil the silk effect. Such work is best done with the face of the work up and the silk in the needle. Fine sewing-silk should not be used for machining; it is not strong enough to bear strain nor thick enough to be ornamental, and is best reserved for slip-stitching. Suitable machine silk (costing sixpence the quarter-ounce reel) is to be obtained from all good drapers, or, where very effective stitched hems are wanted, button-hole twist may be employed. The size of the stitch should be adapted to the thickness of the material, thick stuffs needing a longer stitch than thin ones; it is wise to put two scraps of stuff and two of lining together, exactly as they would come in a bodice seam, and try the stitch on them before commencing on the work itself. Thick stuffs need about fourteen stitches to the inch, ordinary beige, foulé, and stuffs of that class about sixteen; and bodices of thick material should not be machined to fit as closely as those of thinner stuff, since the turn of the seams consumes a little width, and the bulk of the turnings tends to fill up the bodice slightly as well.

For ordinary work the machining may be started at either the top or bottom of the seams, as long as it is all done the one way, and the machinist should go slowly and steadily along bodice seams, taking particular care to see that the needle is fairly on the waist-line before turning; half a dozen stitches may be machined straight below it before turning without spoiling the fit of the dress—rather it will improve it, as it will make the more distinct “waist” referred to on pages 54 and 59.

This “making a waist” should only be done on the straight seams at each side of the straight side piece; it makes the fit of the bodice look better and last longer, but

should be done most carefully. The curves are easiest machined with the backs down; this necessitates putting the bodice under the arm of the machine whilst working, but if it is kept smooth and rolled over close to the needle it will not be troublesome to do so. Where the tacking together is not firmly done, the curves are liable to run apart in the machining, and so produce a defect in the after fitting-on.

Curved seams or lines should not be pulled out into a straight line whilst they are being machined; they must be allowed to keep their own curved shape as nearly as possible whilst passing under the needle, or they are apt to split open as soon as they come into wear. (A curve is longer than a straight line, both starting and ending at the same point, and the straight line of machining consequently does not use up so much thread as the curve, and when the bodice is put on and the curves drawn back to their own shape the thread is too short for them and gives way under the strain. Therefore every curve, whether back-curves, sleeve-seams, arm-holes, or faced hems, should be kept its own shape and machined slowly, to allow each stitch to be perfectly made, and all the length of thread required to be taken up by the work.)

Cords, repps, and goods of that class require great care in the size and sharpness of needles chosen and the degree of tightness given to the garment by the machining, as the groups of threads composing each cord are loosened by being pierced with the needle, and are very ready to split at the seams under strain, particularly if sewn with hard cotton.

Skirt seams should be joined from the top downwards, and are considered to run less risk of stretching if the straight or selvedge edge is down and the bias one up during the process of machining, as explained on page 129.

Velvet and pile fabrics generally should be machined *against* the pile, as seams so joined show the sewing less, and are also less likely to slip away from each other during the process.

When the dress leaves the machine, it should be folded by the back centre-seam, and all seams carefully compared, to ascertain that there has not been any unequal taking-in, but that the pieces on each side of the dress are still pairs both in size and in shape. The run of each seam on both sides should be noted, to see that there has not been any slipping away of the under-piece in the machining, and the widths of back, bust, and waist measured up to make sure the size has not been too much decreased. Any errors are best corrected before the turnings are glazed by the pressing.

The waist should be tight enough to meet with difficulty when the machining is completed, and the bodice gently but very thoroughly stretched out to make it comfortable for the wearer. This is very necessary for all bodices cut by measure, otherwise the waist wears loose in a few days, to the annoyance of everyone concerned; but the stretching must be done gently, and corded fabrics or goods of that class watched and the stretching stopped if the seams begin to show signs of yielding.

The machining over, the *tacking threads* should be removed from all the sewn seams. If the stitches are snipped at every few inches with the scissors, they will be found easier to draw out. With velvet and pile fabrics generally they should be drawn through from the face; it does not then injure the pile. Care should be taken not to remove them from the fitting-lines, or from the neck, waist, design-lines, arm-holes, and bottom edges. If by accident they are drawn out from any of these parts, they should be immediately replaced.

The next step is *the neatening of the inside seams*, which may be done in several ways. At the waist of each seam the turnings must be snipped across nearly to the sewing-line; the darts are snipped across at the waist and opened to within half an inch of the top, where they must be snipped across nearly to the sewing-line again. The tiny scrap of dart at the top, above this last snip, must be

carefully flattened with the iron when the seams are pressed ; the other parts of the turnings should be neatened in the same way as the other seams. After snipping, the edges of the turnings must be trimmed to a uniform width of from half to one inch outside the sewing-line, wide enough to keep from curling up but not so wide as to overlap at the waist, and, to make them neat and prevent them fraying, the edges of the turnings must be protected in some way.

Very common work indeed is pinking them out, or machining them down, raw-edged, quite close to the edge ; but amongst better-class dressmakers only three methods are in general use—binding, overcasting the raw edges, or turning in the edges of stuff and lining, and either running down or overcasting them together.

Of these methods binding is considered the best. Fine narrow China or sarcenet ribbon is used ; it is creased and turned over the edges, and neatly run through all at once. The binding should be put on "full" or "easy," especially at the waist and a little above and below it ; and as it is not easy to turn sharp corners with binding, the turnings are generally scalloped at the waist instead of being merely snipped across, and the scallops continued the length of the seam. If the stuff is one that frays very much, it would be roughly overcast before binding.

Overcasting is used for very thick stuffs, or for those that fray, and should be close and neat (see page 107). Care should be taken not to draw the stitch up tightly, or it makes a hard cord-like ridge which will soon show through the outer stuff when the dress is in wear. Scalloping is not so advisable with overcasting, as the stitch is best worked on a thread, and scalloping presents every variety of "cross" to the needle ; the snip at the waist should be sufficient for all but the curved seams, though some workers prefer to snip the turnings of these and also those of the inner sleeve seams. Snipped curves do not look well—scallops should be used if cutting is needed to make the turnings

lie—and with sleeve seams snipping is dangerous, and should only be used if absolutely necessary. It will generally be found that if the turnings of the inside sleeve seams are made narrow—say a quarter to three-eighths of an inch—and the edges held well turned over the forefinger during the overcasting (exactly as little children hold work when they are learning to seam or top-sew), the edges will be sufficiently stretched to lie nicely to the arm, without a feeling of constraint or pressure.

Turning in edge to edge is used for very thin stuffs, and is best for washing-dresses. For this the turnings should not be pared down quite so closely as for overcasting, as about a quarter-inch is turned in. For bodices to the waist only, they can be run along by machine quite close to the edge, care being taken that the tension is quite loose enough; but it will probably be found to take less time if they are run by hand for bodices extending below the waist, as the latter need fixing. Hand-work finishing on the inside edge does not tighten it up in the length as machining does; such tightening, with any kind of neatening, is a very serious defect, as it shortens the length of the seam.

Just at the waist, where the turnings have been cut across, they cannot be turned in; they must therefore be overcast there with a few strong stitches. Each seam must be neatened to lie open when done; there will be, therefore, two lengths of neatening to every seam. The back seam of the sleeve may be made an exception to this rule if desired, or, if the stuff is rough, but with very close sleeves, even this is better laid open. Corded curved seams were neatened all four edges of the turnings together, and the turnings pressed to lie in the curved side-piece, as inferior work is still often finished.

The pressing of the seams follows, and this should be done patiently, as on it the beauty of the finish largely depends. The irons should be neither too hot nor too heavy, and both sides of each seam, from the sewing

line to the neatening, should be well pressed down before any attempt is made to open the seams flat. This presses the neatening, and saves the risk of it showing through. If the dress is of very thick or very springy cloth or serge, a damp cloth should be laid over the closed seam and the pressing done through it, leaving it slightly damp for the finishing-off. After both sides of the closed seam have been pressed, each one may be laid open and pressed flat with a cooler iron, care being taken not to stretch the length of the seam; and the bust of the dress (each side of the top of the darts and a little above them) should be opened, and great pains taken to press the extreme tops of the darts quite flat out; but the same pains must be taken not to *stretch* the dress at that part either down or across: the very end of the iron only should be used there. Inexperienced pressers are apt to put the whole face of the iron down at this part of the bodice, and give it a rapid twist round with the idea of opening it thoroughly; but this makes a bag which the figure does not fill, and it often irons in creases that cannot be removed.

The sleeve seams should be pressed, first closed and then open, and a sleeve-board is certainly an advantage. Sleeve-boards are narrow enough to go into a sleeve, and one end is rounded and wider than the other—sometimes the top is flat, sometimes rounded—and it should be covered with flannel or some kind of woollen. Different contrivances are made use of for this purpose—a small cricket-bat, a broom-handle, or a rolling-pin being the favourites; but care should be taken that neither bat nor broom-stick has been painted, and that the rolling-pin has never been used, or the heat will bring off the paint or bring out the grease, with disastrous results. Many workers prefer pressing all seams open on a rounded surface, as it minimises the danger of the edges of the turnings marking through; and here the cricket-bat and broom-stick share honours, the former having the advantage of a wide and flat base, and being consequently firmer, the latter

giving greater length, and so allowing all the seam to be pressed without constant moving. Pressing should always be done on four thicknesses of woollen stuff—soft cloth, or a blanket covered with a piece of close linen or holland—and sleeve- and skirt-boards should be similarly covered. The iron should be well cleaned, and not too large or heavy. Tailors use a narrow iron, which runs along the seams; dressmakers, as a rule, keep to the old-fashioned flat-iron, a 6 or 8 lb. one being usual.

All fabrics may be ironed in the same way as woollens, unless they have a pile, when every care should be taken not to flatten it; crepons come under the same head as pile fabrics, and should be pressed in the same way. The pile may be a cut one, as in velveteen, velvet, and plush, or may only be looped, as in terry or frisé velvet.

With these the closed seams should be carefully pressed, care being taken thoroughly to flatten the turnings and neatening, but not to let the iron more than barely touch the line of sewing; if it comes over it, each seam will look, on the outside, as if it has been greased. The iron is then to be securely placed side upwards on the iron-stand, the seams opened and drawn slowly (the same way as the pile runs) over the edge of the iron, the outside of the bodice being upwards and the turnings down and towards the iron. This will open the seams thoroughly without injuring the pile, and to prevent the grip of the fingers marking it (though the hold should be taken on the turnings only, and not over the fitting-lines) good workers place a scrap of the velvet—any little cutting will do—pile downwards on the pile and hold by it. It is somewhat like clapping two hair-brushes together—the fibres fit into each other and prevent crushing. Corded seams (of any fabric) should be pressed in the same way, unless they are to be neaten together, in which case they need not be pressed open at all.

Sometimes two workers hold the seams to be pressed—one at each end—whilst one runs the iron along the seam

thus pressing it, face downwards, in the air. It is simply a different way of doing the same thing, but there is more strain on the seam and some danger of burning the other worker.

Silk glazes and scorches very quickly, and should therefore be pressed in the same way, and with an iron that is light in weight and rather cool; indeed, it is a mistake to use hot irons for pressing: it is work that needs to be slowly and carefully done, and the iron should not be hot enough to scorch if a little extra slow pressure is wanted at any part.

Fugitive colours, which change to brown when heat is applied to them, are very terrifying, as it appears that the bodice has been scorched and hopelessly spoilt; but if the lining has not been scorched it will generally be found that the colour comes back when the dress is quite cold. Nearly all light blue-greys, stone-colour, lilac, pale heliotrope, etc., are likely to prove fugitive in this way, and there is one pretty shade of dark-green which turns brown in pressing; it takes three or four hours before the colour comes properly back to any of them. It is not advisable in dressmaking to cultivate the habit of pressing through a damp cloth, as tailors do. The materials worked upon in each trade are very different in texture and quality, and need handling accordingly. With tailors, whose work is largely upon serges, tweeds, and firm woollen cloths, wet treatment is best adapted to the requirements of the material, and is made one of the special features of their work, both in the exquisite finish of all seams and edges, and in the skilful manipulation by which they impart form to a garment; whilst the large majority of dress materials—as cashmere, foulé, etc.—are so comparatively light and thin that wet treatment would injure colour, finish, and texture, causing them to draw up and look rough and cockled, and entirely destroying the delicate appearance of the fabric. With these the pressing should neither be wet nor heavy; it is quite possible to press too much, as well as too little.

The pressing being finished, it is as well to try on the dress again, with collar tacked on and sleeve tacked in, and see that the pressing has not made the fit too slack; and if this proves satisfactory, the front edges are prepared for the fastenings, the bone-casings are put in, and the bottom edge turned up. The bone-casings are sewn on, but the bones should not yet be enclosed in them, and the sewing-in of cased bones, if they are to be used, should be left till the bodice is much nearer completion, as they make it stiff and more difficult to handle. (See "Bones and Boning," page 79.)

Fastenings vary with fashion; buttons and button-holes are the most usual. The button-holes are made in the right-hand front; the buttons are sewn on the fitting-line of the left-hand front.

The *turnings* of the right front are trimmed off to within half an inch of the fitting-line, and half of this is turned over and pressed firmly down; the edge is thus turned one quarter of an inch outside the fitting-line. This quarter of an inch is to be left beyond the ends of the button-holes, which are only to come up to the fitting-line, and (with the small round buttons generally worn) is sufficient to prevent them from coming over the edges; but where the edges are to be machine-stitched it should be wide enough to carry the stitching beyond the ends of the holes, or if larger buttons are worn (as on bodices fastening at one side, for instance), the edge left beyond the button-hole end or fitting-line should always slightly exceed one-half of the diameter of the button, or the latter will lie over it. (See page 71.)

The turn can be made firm by a row or two of small running-stitches made close to the edge on the inside only, taking up on the needle all but the outside stuff. Inferior work is strengthened by a line of machine-stitching, but that should only be used if all other edges are to be stitched as well.

Sometimes a strip of linen or French canvas is tacked

down the fronts to give firmness ; this should be wide enough to carry the holes well, and should be shaped exactly to the front edge without turnings, slipped under the quarter-inch turn, and tacked down the inside of the bodice over the hand to ensure its being easy in the length. A facing either of glacé lining silk, firm piece sarcenet, or sarcenet ribbon one and a half inches wide, is next prepared ; if either of the former, it is cut about two inches wide and shaped to the front, narrow edges turned in, and the whole neatly and firmly hemmed in to the bodice, the work being held over the hand to keep the facing easy down the length, and the stitches taking up all but the outside material of the bodice ; or a facing of the stuff is sometimes used, and is put on in the same way. Sarcenet ribbon has the advantage of a finished woven edge, and therefore of not requiring any turning under, but at the extreme front edge will need extra easing-on at the waist and a couple of inches above and below it, or it will not lie at its inner edge without snipping across. It will also make some fulness at the inner edge over the bust, which must be used up by keeping the work over the hand whilst hemming it in. If the edges of the bodice are to be machine-stitched, all the stitching should be done before the facings are hemmed in ; such stitching would of course secure the stiffening of linen into place very thoroughly.

It will be noticed that the facings, ribbons, bone-casings, and stiffening are to be put in easy down the length. It must be remembered that the lining was made easy for the outside stuff at the commencement ; that the turnings of all seams were snipped at the waist and scalloped, to give ease in the length ; and that, in fact, the rule of longer length for every successive inside layer is needed in every detail, if the work is to be satisfactory. With the facing under the button-holes it is particularly necessary, as if at all tight it will break away from the stitches and make the edges wrinkle up.

For the left front, or button side, the turnings must be pared

down neatly about an inch and a half beyond the fitting-line; the lining and stuff can then be turned in edge to edge and machined down, or turned over and tacked down ready for a facing; this will leave about an inch of stuff extending beyond the fitting-line, which is usually called the button-stand or wrap, and is intended to go under the button-holes, and so prevent gaping of the fastening edges. With figures that sink much back to the waist, the button-stand or wrap may be snipped across at the waist (in the same way as the turnings of the body seams); but this is not necessary with ordinary figures if the stand is only about an inch or an inch and a half wide. The buttons should be sewn on through a strip of firm linen or a narrow ribbon or galloon laid behind the fitting-line, which should be tacked down on the inside of the bodice over the hand to ensure its being easy in the length. The linen is covered by the inside facing, which is also about two inches wide, shaped to follow the curves of the front exactly, and also hemmed on to the edge and to the lining only, just as the button-hole edge is finished; and what has been said about piece silk or sarcenet, ribbon sarcenet, or a facing of the outside stuff, applies here also. Ribbon must be used if the button side is not to be faced under, but is often preferred to linen even when a facing is used.

The shaping of the bottom edge has already been settled, both in the tacking-out and trying on, and some strips of stiff black or white muslin (Victoria lawn), from two to three inches wide, cut on the cross, and folded double, are used to give a little firmness to it. This is placed with the fold of the muslin to the fitting-line and the bottom edge turned over it (the muslin being a little wider than the turnings), care being taken not to stretch the edge.

It should be finely tacked up into place at a quarter of an inch above the turned edge, and the surplus turnings at the ends of the long seams slightly thinned away. No bone should go below this fine tacking-line and bone-

casings should be turned up by it. Sometimes the raw edges are firmly herring-boned down through the muslin to the lining only, and the edge finally finished by hemming down, at each edge over all, a length of ribbon or piece of either silk, piece sarcenet, or stiff (an inch and a half wide; on the cross or straight to match the fronts, and slightly eased on)—sometimes the herring-boning is omitted. All joins are mitred, and points made firm and flat. The great difficulty about this bottom edge is in finishing the front points of a pointed bodice so that they fit together, and do not overlap when the dress is finished. On the button front the longest part of the point should be fixed just on the fitting-line, the edge running short again on the button-stand, which goes under the button-hole side of the dress in wear; on the button-hole front it should be at the fitting-line itself, or very slightly beyond it. Care must be taken not to have one point sharp and the other blunt; at the button-hole side, where the turnings of front edge and bottom edge coming together are difficult to manipulate to the requisite fineness, the turnings need carefully trimming down and turning over. The bottom edges are generally left tacked up till all the other parts of the work are finished. For cased bones this is quite necessary, and it is also desirable with bone-casings to allow the lower ends of the bones to be secured to the casing, but this is not needed with long coat-bodices. (See "Bones and Boning," page 84.)

The method detailed above gives high-class finishing: the following methods are also in use:—

The turnings of the right front should be snipped at the waist to within half an inch of the fitting-line, and then turned in just a quarter of an inch outside it. Care should be taken that the piece of material and lining turned in is as wide or a little wider than the button-holes will be when they are made. The piece turned over should be turned under and hemmed neatly to the lining inside the

front, or tacked along raw-edged and finished by a narrow binding (China ribbon or Paris binding), hemmed along on both sides over it. If care has been taken, in turning it in, not to lose the shape of the bowed front fitting-line, the turnings will be found a little too full over the bust; this fulness must be "eased in" in the hemming, not laid in one flat pleat, and an extra scrap of stuff must be laid under the waist (where the snipping has left the turnings open), to strengthen it there. The left-hand front has the quantity for button-stand allowed as in the preceding method; the stuff and lining are simply turned in edge to edge, and machined down, or it is bound, or even overcast raw-edged; the buttons are sewn on through a ribbon laid behind the fitting-line to strengthen the front.

With very inferior work, the left-hand front is turned in and left loose from the lining, the button-holes being worked through it without any further preparation, and being considered to hold it sufficiently. Sometimes the loose edges are left with their selvages just as turned in; at others they may be found overcast together or bound with narrow ribbon. Jacket-makers, used to working on unlined cloth, finish dress bodices in this way from force of habit. When all the edges are turned, the fronts may be marked for button-holes and the holes worked. These should be cut exactly by a thread and at equal distances apart (see "Fastenings," above), and should all be the same length. They are sometimes marked with pins, but it is an unsafe and not a particularly tidy way of working, as the pins can easily get shaken out or misplaced, and are likely to catch the thread and scratch the hands of the worker. It is easy to mark them with a tape measure and a needle threaded with white cotton. One edge of the tape measure should be laid close to the fitting-line, and (beginning at the waist) stitches should be taken up the other side of it, a scrap of stuff being taken on the needle at every inch, or at every three-quarters of an inch if the button-holes are to be as close

together. This must be done up to the neck, and then down from the waist to the point. This plan gives a row of tacked marks all the required distance from each other, and just the width of the tape from the fitting-line, which is generally a very good length for holes to be used with ordinary small buttons.

After marking and cutting, it is usual to slightly overcast the holes before commencing to work in button-hole stitch; if the material is one likely to fray, running twice round, the needle taking up in the second round all the spaces it missed in the first, is often substituted; with *very* loose materials back-stitching may be used in place of both running and stranding (see page 116). Either running or stitching must be done before the holes are cut, or the needle will break out the edges. It is best to mark for the sewing-on of the buttons from the holes themselves; after the latter are worked the two fronts should be very carefully pinned together, fitting-line to fitting-line, the waist-line, ends of points, and neck-curves matched, and (the left forefinger feeling the end of each hole as the marking is done) the place for each button marked by a stitch in coloured cotton on the left front. The actual sewing-on of the buttons, however, should be left to the last, as if they are sewn on before the collar they are very much in the way; but it is easier to mark for them before the collar goes on than later, and the stitch-marks remain as long as they are needed.

The sleeves should be finished at the wrist-end, and the cuffs (if they are required) set on, before the sleeves are put in; indeed, at this stage of the work it is necessary to consider carefully what had better be done next; it is very desirable that each separate part should be finished as far as possible before all are joined together, as it keeps the work fresher and is easier to handle. The wrist should be turned by the fitting-line of the end of the under-sleeve over a folded cross-strip of muslin, just as the bottom edge of the bodice is turned, and tacked down to the lining raw edged, and then

finished by a ribbon or shaped piece of silk or sarcenet being hemmed neatly over the turnings and to the lining.

The sleeve is held inside-out whilst the facing-up is done, and the work should be held flat at the wrist-end—not turned over the hand—whilst the silk is being hemmed in, or it will be full and puffy inside the sleeve when in wear. The upper edge of the facing, which is to be sewn to the lining of the sleeve only, should be slightly eased on, unless a very narrow ribbon (half an inch only in width) is used; the former is preferable, allowing the sleeves to sit better to the arm; it should be shaped from a strip on the cross if possible.

A plain cuff should be made in pretty much the same way as a collar, using one thickness of muslin in place of the buckram. The lower parts of the sleeve pattern should be laid together by the inside seam and the pattern cut by it, care being taken to increase the width that it may easily go over the end of the sleeve. The pattern thus places the seam of the cuff at the back seam of the sleeve, which is the least conspicuous place for a perfectly plain cuff. The material and muslin may be joined together in the seam, and surplus muslin cut away; the edges of the stuff should then be turned over and herring-boned down to the muslin at both top and bottom, a sarcenet lining hemmed in, and the whole finished cuff slipped up the finished sleeve-end, the lower edge being firmly slip-stitched into place. If the upper edge is to be slip-stitched down too, the sarcenet lining may be omitted; otherwise it is necessary. Perfectly plain cuffs, unless of very rich material, are seldom used; they look poor unless finished with cord, trimming of some sort, pipings, or a narrow fold set under the edges.

This gives a perfectly plain sleeve-finish, but at times the fashion of ornamenting the end of the sleeve, instead of using a cuff, comes into vogue. Buttons and button-holes, hooks and eyes, and fancy lacings are all used, and buttons with loops of cord or worked loops of silk are also liked for

close wrists. For buttons and button-holes, or hooks and eyes, the sleeve seams are arranged exactly as front edges would be for similar fastenings, with the necessary stands and wraps; edge-bones, however, being omitted. If the fastenings are at the lower end of the inner seam, it is an advantage to the after-effect to straighten the fitting-line instead of turning the edge to the inward curve, and the extra size put into the sleeve can be taken out at the back seam by straightening off the curve there also. With hooks and small loops, or buttons and large loops, the wrap may be omitted and the loops worked quite on the edge of the fold; with loops of woven cord, the cord is carried round the wrist as well as up the opening, where it is finished off inside. The cord is sewn on by overcasting it to the edge of the sleeve; it must be held "easy," and not allowed to twist, and it will when sewn roll into place and hide the stitching-on.

The ends of the sleeves are sometimes cut a few inches longer than necessary, lined with the trimming silk or velvet used on other parts of the dress, and turned over as a cuff, either the inner or outer seam being left open to allow it to lie easily. This lining-up would be done in exactly the same way as described for bell-sleeves, taking care the facing is very easy in the length to allow smooth turning-out, and snipping the sleeve-turnings across quite close to the fitting-line where the facing is hemmed on, for the same reason.

Where the sleeve is ornamented with several rows of fine braid round the end in the manner of a cuff, it is usual to close the inner seam only and back the sleeve with a shaped piece of stiff muslin loosely tacked on, and machine on all the braid before closing the back seam and finishing the wrist. It is much the neatest and safest plan, as braid frays very rapidly, and is not easily joined to look well on the outside, but it looks very ugly if the braids do not exactly meet at the back seam when the latter is closed.

A plain coat-sleeve differs from the present bodice-sleeve in

three respects: it is less curved at the inner seam, is cut to fit loosely, and upper and under are the same width. Being loose-fitting, it does not require such very special provision for elbow-room as the close bodice-sleeve; a slight curve in the back seam gives all that is needed without gathering. Such sleeves, when in vogue, are often joined up with the turnings of the seams to fall between stuff and lining of the under-sleeve in the same manner as explained for gored skirts (Chap. VII.), and this method of joining has also distinct advantages for quick work on open-wristed or bell sleeves, where flat seams made through would be very unsightly. Any of the methods given for skirt seams may be adopted, according to the class of work on the bodice. The finishing of the wrist-end of an open sleeve would nearly approach trimming. The edges should be finished by turning them over and herring-boning down, and then finely slip-stitching a carefully-prepared shaped facing (or lining) of either the outside material or the trimming silk to it. If piped cording is used, it should be tacked round before the facing is put in, in which case the three (sleeve, piping, and lining) might be stitched through on the wrong side, pressed, and the facing hemmed up against the lining of the sleeve, as the bottom edge of a skirt is finished, though the first method would give the flattest and firmest finish. The facing should reach up to the elbow, and the seam, if seams are needed, should be made where it will show the least; at the inside seam is in this case the least conspicuous place. When the fashion of loose lace or net sleeves worn inside the outer dress sleeve prevails, the inside finishing of the latter is not so elaborate, a shaped hem of the stuff two or three inches deep being used, but a quilling or frill of lace or silk is sewn in above it to make an effective finish. Such sleeves, if not corded, are bound or more or less elaborately trimmed with folds, frills, etc.: a quite plain end would be unsatisfactory to the eye.

The turnings of arm-holes and sleeves should be pared down to a scanty half-inch beyond the fitting-line before the

setting-in is started ; with broad turnings the worker seems to be easing-in more than is actually the case, and great disappointment is felt when the sleeves-heads, in spite of all her care, come out poor and contracted. Paring down the turnings prevents this. If the sleeves are to be corded-in, the cording is next tacked to the arm-holes (see page 18).

To set in the sleeve, the inside seam should be put to the inset mark, with the turnings opened or pressed down into the under-sleeve. The sleeve must be held next to the worker and the dress away from her, and the under-sleeve pinned round to the fitting-lines of the arm-hole as far as the back sleeve seam, the turnings of which should also be laid into the under-sleeve if they are not pressed open. It is now necessary to return to the inset and to begin to ease in the upper part, making the sleeve full for the arm-hole as high as the mark opposite the front of the neck-curve (see Plate), and gathering the surplus fullness between this and the back shoulder seam, or a little (about half an inch) below it, slightly graduating it down to the back sleeve seam as well, if it is quite a plain sleeve. The head of the sleeve should be at least two to three inches larger than the space it is to fill in the arm-hole, to allow for this fulling. Tight-fitting linings of full, puffed, or leg-of-mutton sleeves must be set-in to the arm-hole in the same way, after the outside stuff has been gathered and fixed to the fitting-lines, or a sense of constraint will be felt and the lining will soon tear away at the front of the arm.

The back seam of a close-fitting bodice sleeve with narrow under-sides generally falls about half-way between the curved back seam of the bodice and the seam below it ; its exact position varies slightly according to the cuts employed, but care should be taken with the second sleeve to exactly match the position of the back seam as well as the inside one. The two seams should be pinned into place, and then the setting-in of the second sleeve proceeded with. Tacking is not strong enough to hold sleeves well to the arm-

hole for machining-in ; they should be run and back-stitched with cotton or silk the same colour as the dress, the tacking-threads removed, and the sleeves carefully machined in, remembering to keep the arm-holes curved whilst the machining is being done. If the machinist can keep a length of galloon or Paris binding outside the seam whilst she is machining, and stitch through one edge of it, the other edge can be closely overcast with the turnings, which will make the arm-holes flat and well-finished ; or after the sleeves are machined-in, the binding can be hemmed at one edge to the stitching, and the other edge overcast with the turnings in the same way. The turnings are naturally pushed into the arm-holes by the action of putting on the bodice ; if turned under the shoulder, instead of into the sleeves, they cause the latter to lie close to the arm, and to look as if they had been insufficiently eased into the arm-holes.

Setting on the collar follows. The fitting-lines of the neck should be pinned together from the back seam, and the turnings trimmed down to a quarter of an inch in depth (this should not be done before the dress is quite ready for the collar, as the neck is particularly apt to stretch during the making). The bottom edge of the collar is then laid just over the fitting-line, beginning with the middle of the collar and the centre back seam of the dress, and working forward on each half. The right side of the dress and the right side of the collar should both be uppermost, and the collar towards the worker, that it may in a sense be eased on by the work being held slightly over the hand whilst the collar is being pinned on.

The collar should be slightly larger than the dress, and the latter slightly strained at the turn of the neck (see 2 to 2 on Fig. 1, page 11) ; but at this point also the greatest care should be taken not to set the collar on in a straight line and let the curve of the neck go up inside it, as all workers have a tendency to do. It produces a very annoying misfit, making

the bodice rise against the collar at front and back as if the dress were too long at those parts, whereas the fault is that the neck curve has been turned into a square in the setting-on of the collar. Another annoying defect is overlapping of the collar at the top of the ends, and this is brought about by setting the extreme ends a very little below the neck-curve lines instead of upon them. The bottom of the collar ends should make a nearly straight line across the front of the neck if the upper part is to sit well; but they are inclined to push downwards in the handling, and the very slightest peaking will bring about overlapping at the front.

After the collar has been pinned on from the outside it should be back-stitched firmly on from the inside, the stitches being taken through the fitting-line, and only through the bodice and the material turned over the collar—not through the buckram. The stitches should not be large nor tightly drawn up, and the line of sewing should be absolutely even, or it will show by little puckerings on the bodice below the collar. The turnings should then be snipped a little to free the neck from the strain, and the silk lining hemmed down over the sewing to make all neat, keeping the depth easy that it may not lift the dress against the collar when it comes into wear.

For washing-dresses, the body of the collar may be made of three or four thicknesses of white check muslin, cut without turnings and machined through, the stuff herring-boned to it, the lining sewn on, and the whole then set on the bodice exactly as a buckram-stiffened collar; or the old-fashioned plan first given may be adopted.

All edges, fronts, arm-holes, neck, etc., should now be lightly pressed from the inside; the bones put in and fastened into place, and the bottom edge bindings finally hemmed up.

The belt is finished either with hooks and eyes or with a buckle. If the former, a hem about an inch deep is turned

at the left-hand end, two eyes being sewn on the outside of this hem. From the eyes the length of the belt is measured and turned over with a half-inch hem, on the under-side of which two hooks, to correspond with the eyes, are placed. If a buckle is used, it is sewn to the left-hand end of the belt, which is left about three-quarters of a yard long, and the right-hand end neatly mitred to pass easily through the buckle. The belt is secured to the turnings only of the three back seams—the bottom of the band being to the waist-line—by rows of small cross-stitching, herring-boning, or by one large cross-stitch to each seam; the latter is sometimes prettily done in narrow china ribbon, a very coarse needle being used to carry it and pierce the belt and turnings. When unstiffened collars were worn, hangers were put from shoulder-seam to shoulder-seam, just below the collar; but this would crack the buckram on stiffened collars, and the practice of putting two hangers, one at each shoulder-end, or one at the top of each curved seam, has taken its place.

Preservers should be tacked lightly to the turnings at each end, and also by the rounded part of each half; one half should be in the sleeve and one in the bodice itself, the rubber being against the lining, that the silk, wash-leather, or flannel with which the preserver is covered may come against the body of the wearer and so prevent chill. Thin washable preservers may be made of a single thickness of wash-leather, bound with china ribbon, and tacked into the bodice in the usual way.

The watch-pocket was at one time an ornamental outside pocket, made of the dress-trimming exactly as a cuff would be made, and slip-stitched against the dress just below the waist. Later, when wearers had tired of the outside pocket, a tiny bag-pocket of silk was used, and dress-makers took advantage of the little seam across the waist and used it to give turnings for the sewing-in of the pocket. At the present time a tiny bag-pocket is hemmed to the

inside of the right-hand front, just at the bust ; the mouth of the pocket is slanted off, and the pocket is sewn in on the slant to hold the watch securely. Tiny wash-leather bags, such as jewellers use for watches, make excellent watch-pockets ; they save scratching and tarnishing, if bound with china ribbon are not bulky, and both look and wear well.

Buttons should be sewn on last of all. The sewing-on should all be done from the outside of the bodice, through the marks already made from the button-holes, the needle taking up a very small piece of the bodice and linen or ribbon below it, whilst the forefinger of the left hand gently draws the silk or sarcenet facing away that the stitches may not go through. The stitches should be as small as possible, not to draw up the length or width of the bodice, and each button should be stemmed and the fastening-off done in the stemming. Flat buttons with two or more holes must be sewn on with the twist used for the button-holes, and can be sewn on from the outside as easily as any other button. Silk or cotton, as preferred, may be used for sewing on any other style of buttons.

Light and delicate materials are finished inside with white sarcenet or silk for bindings, facings, bone-casings, etc., but with durable dark dresses black is used, or the finishings are matched to the outside material if possible. In any case, the inside finishings should harmonise with both linings and outside material in colour, contrasts being considered in very bad taste ; and where neither can be matched and white is too delicate, a neutral tint should be chosen, and all the finishings should match, or a very patchy effect results. It adds to the good appearance of the inside of the bodice to sew on the bone-casings and fan the bones, and cross-stitch in the belt with a pretty, bright button-hole twist instead of cotton ; bright blue or crimson for black or tweeds, gold for brown, etc., are distinctly effective.

CHAPTER II.

TRYING-ON.

Natural Position of Collar and Sleeve Seams on the Body—Run of Seams—Graceful and Ungraceful Lines—Slanting Seams—Straight Seams—Wrinkles—How to Deal with Them—The First Trying-on—The Outlines—The Front—The Sleeve—Uneven Figures—Dispensing with the First Fitting-on—Trying on Too Often—Seams Running Awry—Trying-on Difficulties—Long or Short-Waisted Bodices—Alterations on Back or Front—Width Alterations—Back and Chest Too Wide or Too Narrow—Side Too Long or Too Short—Sleeve Misfits—Neck and Collar Defects—Differences in Figures.

It is an exceedingly difficult thing to say where the seams and joinings of the different parts of a bodice should fall upon the figure, fashion having more to do with it, unfortunately, than common-sense—at least, so far as collar and sleeves go. When sloping shoulders “come in,” common-sense goes out.

The natural position for the collar on the figure is just above the two little bones which will be found at the front of the neck, and low enough at the back not to be affected by the movements of the head in bending; this will place the line of setting-on just below the joint of head and backbone. A collar set higher than this is very uncomfortable, and wrinkles always form below it. One inch and three-quarters at the front and two to two and a half inches at the back is the greatest depth of collar the ordinary figure can wear with comfort.

The run of the arm-hole is controlled by the widths of the back and chest, and the lengths of side and shoulder, and, for ease and comfort, the seam where the sleeve is set in should certainly fall above the joint of arm and shoulder,

and from it come down at both back and front, curving slightly inwards, to miss the bands of muscle that make "hinges" for the arm, and thence curve underneath, keeping close to the body and leaving the joints free, that all movements may be made inside the sleeve-head. The prevalent fancy for narrow backs and wide chests has much to answer for in the matter of uncomfortable sleeves, as bodices cut to give this appearance to the figure naturally pull the elbow too high and drop the inside seam, making it hang long and full of wrinkles, and the sleeve is blamed when the defect is with the dress itself.

The shoulder seams should turn the shoulder sufficiently to be quite out of view from the front of the figure; it is a matter of personal taste or fashion to slope them more than this. All back seams and curves should slant down towards the centre of the back, and front ones (as darts) towards the centre of the front. Such slanting seams add to the apparent length of the body and give an appearance of breadth above and slenderness below which is essentially becoming to the figure. To assist this effect the waist should be as low as the shape will permit, and vanity would do well to bear in mind that nothing in Nature is lost; that what is displaced at one part goes to make bulk at another; and that the figure below a tightened waist is more prominent than is quite pleasing to the eye.

Straight seams make the figure look equally thick at all parts, and detract considerably from its grace even if it is well-proportioned. The careful fitter will give these details her attention, and will give "run of seams" as much care as wrinkling or defective width or length. Some rules for dealing with the latter are given on page 58; but of all the bugbears with which a dressmaker has to deal in the trying-on, wrinkles are the worst.

Wrinkles are of two kinds: those that are made by the straining apart of the bodice seams owing to the length of the tacking stitches, and which consequently will disappear

when the bodice is machined, and those that come from some defect in the fitting of the bodice itself.

Wrinkles or creases of the former kind generally form straight across each piece and can be followed to the tacking threads; they will almost entirely disappear if the seam is held tightly and strained from both ends. If carefully observed, such wrinkles will be found to be pointed at both ends, whilst those arising from defects in fit are pointed at one end and blunt at the other, the blunt end indicating the fault. The best way of dealing with these is to open the seam and smooth the two sides together, pinning them down, when the extent and nature of the misfit will show itself. Before doing this, however, it would be wise to look and see if wide turnings are not the sole cause of the trouble, as excessive width or length chiefly causes wrinkles where carefully drafted patterns have been used to cut from. Bad or unequal joining—such as not making the waist-line run, or straining one side and fulling the other—is the most usual cause of the more troublesome wrinkles appearing, but occasionally they are caused by some peculiarity or disproportion in the figure being fitted, and should be dealt with as explained on page 65.

The first trying-on should be done with the stuff inside, and the seams (the turnings) outside, as it is hardly possible to gauge the degree of looseness if all the turnings are inside. When this has been ascertained, it is wise to turn it right side out and try it on that way also, to make sure that the stuff is sufficiently strained out to sit smoothly and is free from wrinkles, slips in this direction being easier to remedy now than later on. The same rules for trying-on apply to the sleeves.

With full or fancy bodices, which would be crushed by trying-on wrong side out, the looseness must be very carefully gauged from the right side; great care should then be taken that the bodice is not filled up with wide turnings, and that they lie as flat as possible inside it.

The first step is to pin the front fitting-lines together at the neck, joining the neck curves exactly and pinning down to the bust, then to lift the bodice up a little at the front and pull it well down to the waist behind, or it will seem too long in the front and too short in the back when the fronts are brought together ; next, to bring the waist-line together and pin it there and below, and after that to close the front fitting-lines from the bust downward, once or twice lifting the bodice to the neck and putting the hand inside and gently pushing up the bust that it may not be pressed downward, but may fall into the proper part of the dress designed for it. When this is done the fitting of the outlines should be carefully gone over in order. It should be noticed if the waist of the back is in the right place and the tacking-lines of the neck are right (neither too high nor too low); if the width of the back seems suitable to the figure; if the side is the right length, setting well down to the waist and high enough under the arm ; if the curved side-piece sits smoothly and close to the figure at waist and arm-hole. The tacking-lines should be taken as the guide in these details, not the edges of the turnings, as, if the latter are broad they will make the dress appear large when it really is not so inside the fitting-lines. It is well to note if the waist keeps low enough round to the side and towards the front, as it is at the two straight seams at each side of the straight side-piece that the bad tracing referred to (page 7) now shows itself, making the waist of the dress short at the sides and much slacker than is required, and it often happens, if the waist is too slack in this way, that the dress in the trying-on appears much too tight round the hips. Except for middle-aged, full figures, however, the tightening-up of the waist will be found to give all the hip-room needed ; but when the cause and remedy are both so obscure the defect is a very worrying one.

The length of the front at the centre, from the highest point of shoulder down over the bust, and at the side between

the back dart and first seam, should be noted, and also the fit from the arm-hole upwards over the shoulder; next, see that the front of the neck is right and the chest the proper width; then a little pull at the turnings of the seams under the arms will show if the bust is too slack, and at the waist the same. It is reasonable to look for this slackness, but it must be seen whether it is due to slack tacking together, as, if the stitches are large and loose, they let the pieces pull apart, and the bodice appears looser than it really is. With good tacking together it should be just slightly slack, as the machining tightens it up a little; if it seems really very slack it would be better machined within the lines instead of upon them, or, on the other hand, machined outside them if it appears too tight. In making such alterations, either simply letting out or taking in, it is wisest to remedy the faults on the straight seams, leaving the curved ones and also the darts untouched. This is better than letting off or taking in the bodice at the front edge, as altering at the front broadens or narrows the chest and spoils the fit of the arm-hole.

The sleeve—also inside out—should be slipped up the arm, the inner seam pinned to the inset mark, and the elbow drawn into its proper place. The under sleeve is then smoothed up under the arm, the turnings turned over and length underneath ascertained, and the back seam pinned to the fitting-lines of the back to test its length; finally the head of the sleeve is drawn up to see that it will come well up to the fitting-lines on the shoulder, and that there is a little surplus fulness for gathering and easing. If the outside of the collar has been prepared, it also may be tried on; it should be put round the neck, and the two ends brought together at the front and lightly pinned, and then the whole collar pressed down against the dress with the hand to see if it comes easily to the fitting-lines.

With figures that are obviously a little different at one side from the other, the trying-on should be done right side out, or the alterations will be made on the wrong half of the

bodice. With such figures the prominence on one side is always accompanied by a corresponding depression on the other, and the considerate fitter prefers to fill up the hollow with cotton-wool, and so render the difference less conspicuous, rather than tighten one half of the bodice and loosen the other, which accentuates painfully all that a judicious and kindly worker would naturally endeavour to conceal.

Experienced workers, who can trust their patterns and their knowledge of the figure they are fitting, frequently dispense with the first fitting-on altogether. They prepare the front edges and make the fastenings, and machine and neaten all seams but the shoulder seams and those under each arm (which are to be left for alteration); these are tacked firmly together with the turnings *outside* the bodice instead of inside, and all the necessary alterations made upon them. There is much to be said in favour of this plan: it certainly keeps the bodice fresher and less handled, and the fit can be very closely controlled by the outside turnings, and in an ordinary way the seams indicated would give sufficient margin for half-inch alterations; but the method should not be wholly relied upon by inexperienced workers, especially when they may be dealing with figures a little out of the ordinary run, and good turnings should be left at neck and shoulders and at the alteration seams in all cases.

This is an excellent plan to follow where only one opportunity of fitting-on can be relied upon (as with customers who live at a distance), and is much used by dressmakers in market towns, who prepare the bodice so far and also machine-up the inside seam of the sleeve and try on with one sleeve tacked into the arm-hole and the collar tacked on as well. In an ordinary case, two or even three tryings-on are considered necessary. It is well to remember, however, that the rule for trying-on and alteration is "seldom and little," and that more misfits are due to too much alteration than to any other cause whatever.

Seams running awry.—The seams running awry in a bodice otherwise apparently well-fitting is a very annoying defect, which it is often extremely difficult to trace to its real cause. It may arise in the first instance from careless cutting out of the pairs of backs or fronts, the lining or material of one running a little differently from the other with respect to the way of the thread. This is particularly likely to occur when the pieces are cut singly and have had to be carefully managed out of the material. Again, it may be due to unequal stretching of the outside material in tacking-out, or unequal joining of the seam, one side being full, the other strained. If due to unequal easing, it is more likely to arise from bad joining of the backs to the curved side-pieces than to bad joining of the centre back seam. Machining one half (either bodice or skirt) from the bottom up and the other half from the top down may lead to the same defect (this is particularly noticeable with skirt seams), and, as a matter of course, careless machining may take in or let out the seams unequally, and make one half of the bodice quite different from the other.

Unless the lengths of the side seams from the waist up to the arm-hole have been perfectly balanced, twisting may be caused by joining some pieces from the waist-line upwards and others from the arm-hole downwards. Unequal joining of the neck curves is also a fruitful cause of seams running awry.

The inside seams of sleeves will twist into view if the sleeve is not properly joined and the elbow formed, or if the length of the seam is too short either above or below the inside bend of the arm, or if the seam itself is too curved for the arm, or if the deepest part of the curve is in the wrong position (either above or below the inside bend of the arm instead of upon it), and of course if the inside seam is not set in at its proper place in the arm-hole it will come into sight; but that would be caused by incorrect joining of

bodice and sleeve rather than by a defect in either, and would only occur if the joining points were lost. Skirt seams running awry are dealt with on page 156.

Trying-on difficulties.—A dress may be short-waisted at the back either because the waist is too high (or in other words, the back cut too short) or because the arm-hole is too small. In the latter case, in addition to the basque of back hanging off at the waist, the neck-lines will appear too high and the arm-hole strained and uncomfortable.

Where the back is too long, horizontal creases show across the back, level with the heights of side.

If the bodice is too long- or too short-waisted to the extent of half an inch only, the alteration is easiest and most satisfactory if made at the shoulders, either by letting-down or taking-up. If the required alteration is more than half an inch, the waist-line should be raised or lowered as well, half of the alteration being made at the shoulders and the other half at the waist, and the spring below the waist run to the new waist-line. This lengthening the bodice by dropping it at the shoulders can only be managed if the turnings at neck, shoulders, and under-arm will allow. If they are not large enough, the whole alteration must be made by raising or lowering the waist.

If the front is too long, it will hang back and seem quite too narrow below the waist, so that it can only be brought together there with difficulty. When pinned together, horizontal wrinkles appear between the darts, and also between the front dart and front edge. If too long between waist and side, horizontal wrinkles and sinking-in just at the bust show at the level of side, as if wadding were required. If too long from side-level to shoulder, wrinkles from neck to inset of sleeve appear, especially if the chest also is too wide. A too loose arm-hole will cause the shoulder to stand off and to wrinkle. If the excess of length is only between the front of the neck and waist (the length from waist to shoulder over bust being correct), the V-dart (shown on the front

of bodice on Plate), taken up in the lining only, and the stuff smoothed down over it, will best clear it away.

The sinking-in above the bust may be due to the figure requiring a little wadding at that part; if already wadded, it is to be dealt with by cutting down the side and lifting the excess of length at the front shoulder. This lifting is also required if the wrinkles from shoulder-seam to inset appear. The alteration may be needed at the arm-hole end of the shoulder only, if the defect is caused by the arm-hole itself being too loose. Such wrinkles may also be caused by the stuff being insufficiently strained over the lining: smoothing-out is here the obvious remedy.

It may be that only the front or only the back requires altering; in either case the same rules for lengthening or shortening should be applied to those parts requiring alteration. When any bodice alteration has been made affecting the size of the arm-hole, the sleeve (if a plain one) must be modified too, or it will not fit the arm-hole afterwards. (See "Sleeve," page 46.)

The slackness caused by the bust or waist, or both, being too large will be apparent, and requires no special description; if either or both are, on the contrary, too small, of course the bodice cannot be pinned together on the fitting-lines. If the waist is too loose and ill-formed (see page 54), the bodice will appear too tight round the hips: here, forming the waist properly is the remedy—letting-out at the hips will only aggravate the defect.

It is better to make all width alterations (bust or waist too large or too small) as far as possible on the straight seams under the arms at each side of the straight side-piece, and to interfere with all curved lines and darts as little as possible.

Slight figures, however, may need less curve out at bust than average ones (though some curve, however slight, is generally considered essential for comfort and good appearance), and with such figures a little of the round of the front may be fitted off. (See "Differences in Figures," page 67.)

If the back is too wide, a new fitting-line should be tacked down from the shoulder the required distance inside the old line, gradually curving into it at the bottom of the arm-hole, and the excess width cut away; the turnings should be utilised if the back is too narrow, and a new fitting-line made outside the original one. If the turnings are not large enough to admit of the whole of this last alteration being made upon them, the back seam must be let off; but as this is likely to increase the size of the neck-curve at the top of the back, it should be avoided if possible.

If the chest is too wide, it may easily be remedied by tacking a new fitting-line from the end of the front shoulder, curving it in to the altered chest-width, and running it into the original arm-hole curve at the top of the side seam. This will necessitate moving the inset-mark back to the turn of the new curve. If the chest is too narrow, the turnings should be utilised if possible, a new curve being tacked and the inset-mark moved to it; where the turnings are insufficient, part of the alteration must be made by letting off the front from neck to bust, but this should not be resorted to unless it is unavoidable.

Back and chest alterations should, if possible, be made at the arm-hole, where they will not affect the fit of any other part of the dress, if a little tightening of the arm-hole at the shoulder-end be excepted.

It is obvious that a too long side will produce wrinkling and sinking-in across both back and front of the bodice at the level of arm-hole depth, and must be dealt with by cutting away there and tightening off the excess of length at the shoulder seam. A too short side does not make itself very apparent until the sleeve is put in, when it draws it down, keeping it away from the arm underneath and giving a feeling of great constraint across the top of the arm (see page 62). Using the turnings under the arm, or, if they are insufficient, raising the whole bodice by lowering the waist-line, taking up the shoulder seams and

lowering the neck curves, is the only remedy short of cutting new side-pieces : this latter remedy is infinitely preferable.

An obscure cause of a very serious defect of this class is when a too short side measure has been used to produce the pattern, the arm-hole size being correct. This puts too much slope on the shoulder seams, which in turn pushes the bodice up and causes the neck-lines to appear much too high at the throat, and the back and chest to seem too narrow, and, particularly, the shoulders themselves to look very much too short. The remedy is to let off the arm-hole ends of shoulders and lengthen the sides by using the turnings under the arms, when, if the alteration is sufficiently made, the bodice will sink into its proper place on the figure.

The defects caused by the arm-hole being too small have already been dealt with.

The sleeve.—The inside seam of the sleeve should come about an inch above the lowest part of the arm-hole, at the turn of the arm-hole curve on the front. For present fashion the back seam would strain and would not look well if it came much above the curved seam of the back ; to sit well it should fall a little below it.

As the position of the inside seam is not so liable to changes of place, it is a more reliable joining-point than the back seam, but where it is preferred to rely upon the latter it would be set into that part of the curved side-piece which comes into the arm-hole, half-way between the curved back seam and the one below it.

If the sleeves are too tight or too loose, all alterations should be made at the back seams ; they will then only affect the fitting-lines at the top of under and upper sleeves, which can easily be made to run again. The same rule applies if the letting-out or taking-in has to be made *above* the elbow only or *below* the elbow only. If slanting wrinkles appear across the lower part of the sleeve, accompanied by a feeling of constraint and discomfort across the arm, it will generally be found that the sleeve has been

improperly put together, or that the elbow has not been made to lie, and that there is consequently insufficient elbow-room in it.

If the inside seam of the sleeve, below the elbow, is properly curved, and the back seam is too straight for it, the part below the elbow will fit very closely to the arm, while the wrist will be too loose, and will look as if it has been stretched and spoilt by careless handling. Letting-out the back seam to the proper degree of curve required, not taking-in the wrist, is here the correct remedy.

Straining and pulling across at the top of the inside seam may arise from quite a number of causes. The back of the dress may be too narrow and may be pulling the elbow higher than its proper position on the arm, or the elbow may be too short, or there may be too much curved out from the arm-hole end of the under-sleeve. Again, the fault may be with the inner seam itself, which may be too long altogether, or only too long from the inside bend upwards. Sometimes it is caused by the head of the sleeve not being cut high enough or sufficiently rounded to reach up to the shoulder easily, or not wide enough just across the thickest part of the arm (a very common cause of straining across when plain coat-sleeves are worn, and both the back and chest of the dress are liked narrow), or by the sleeve-head not being well eased to the bodice at the front of the arm-hole from the inset upwards. In addition to this list of possible causes, the fault may be in the arm-hole of the bodice itself, which is often insufficiently hollowed just at the inset, or too much hollowed at the top of the curved side-piece. The fitter must trace the cause first; the necessary remedy will then present itself: either using the back and sleeve turnings to lower the elbow, or altering the position of the latter at the back seam, may serve, using the turnings at the top of the under-sleeve to fill up the hollow if too much curved there, or the turnings of the head to give more round and height, cutting down the length of the inside seam only,

and running the lines back to the back seam and up to the head if the inside is too long. It is a more serious matter to get extra width if the sleeve is a close one. If bodice turnings have been utilised to their utmost, a little extra size may still be obtained by cutting down the top of the under-sleeve (which, however, gives an increase more of height than of width to the head of the upper), or the bodice itself may require a little tightening at the ends of those seams which come into the arm-hole (not at all an uncommon fault if the machining has been carelessly done and the bodice much handled).

If the elbow only is too long or too short, the easiest remedy is to move it up or down the back seam. Where this is impossible owing to the shaping of the seam, it must be taken up or let down at the top, and the inside seam let down or hollowed out at the top to correspond, lest wrinkling across the top of the sleeve should appear.

Such taking-up or letting-down will affect the length and width of the sleeve on the arm, and also the amount of sleeve-head that has to be eased to the arm-hole, and with a plain sleeve may prove troublesome if the alteration is excessive, leaving a poor, flat head to the sleeve.

Neck and collar.—Defects in collar and dress-neck are so closely connected that it is difficult to disassociate them. Some of the defects produced by bad setting-on of the collar have been referred to on page 48; but where the dress-neck itself is too high, either all the way round or at the back only, the most careful setting-on will not prevent wrinkling just under the collar. In all cases where the neck seems too high, or the shape of the neck-curve defective, the best and most practical way of dealing with the difficulty is to put the collar round the wearer's neck, pin the ends of it together and press it down on the bodice, chalking a new fitting-line just below it and setting the collar on by this instead of by the imperfect neck line.

Where, on the contrary, the neck is too low all the way round; an ordinary collar will not fit at all, but will appear too small at the lower edge, though large enough at the top one. The best remedy (if there are no available turnings to utilise) is to cut a new collar, deeper and much more curved than the old one, and which will consequently sit lower on the neck without being looser at the top. If the dress is only too low at the back, the new collar may be cut more curved and deeper at the back only—such collars often fill up rather hopeless-looking necks if carefully set on—but of course this can only be done to a certain extent; and if the neck is very low it must be filled up with a yoke of lining and stuff, and trimming or a lie-down collar used to cover up the misfit.

The collar must be set on rather "easy" for the back of the dress, or the wearer feels as if the head is being dragged forward. Where the dress is really too low at the back and right at the front, the ordinary collar will press against the front of the throat, which in turn will pull the bodice up behind and give a feeling of great discomfort.

If the neck is either too large or too small for the wearer, the remedy must be either taking-in or letting-out at the front edge or the shoulder seams, or the top of the centre seam of the back; the latter should not be altered if it is possible to avoid doing so, as taking-in the centre back seam is likely to give the figure a round-shouldered appearance. A little seam at the turn of the neck in the lining only, and the stuff smoothed up over it, is an excellent way of combining close fit with ease at this point.

If, however, the largeness is due either to a badly-formed neck curve or to stretching during the making, taking-in or letting-out will not remedy it; for the former the plan of finding a new fitting-line by putting the collar round the neck and chalking below it, as already explained, is the best way of finding the required alteration.

The stretching is more serious and difficult to remedy.

The best plan is gently to draw the material between the fingers alternately the west way and the warp way of the stuff, to endeavour as far as possible to replace the threads in their original positions ; if this will not serve, try to take out the little seam in the lining, just at the turn of the neck already referred to, and either draw the stuff well up over it or fit away stuff and lining at the neck-end of the shoulder seam.

Some of the causes of the collar overlapping at the front ends have already been stated ; but it may also arise from the collar being too curved for the neck and not sufficiently shaped off at the front ends, or too straight for the neck of the dress, or from its being set on too high at the back for the front curve, or too low at the front for the back curve.

Good workers strain the stuff up and press the lining down whilst setting the collar on, to guard against a slight fulness of the material showing under the edge after the sewing-on has been completed. Should such a fulness appear, it indicates that more smoothing-out of the material is necessary.

Differences in figures.—In spite of careful measuring and all care in the subsequent processes, the bodice may not fit perfectly owing to some peculiarity in the figure. Thus the very upright figure with short back and full bust may need the back lowered, and the front lengthened, to take the shoulder seams further back ; whilst another class of erect figure, with long, slender, rather hollow back and waist, may require the back lengthened. With such figures it needs to be made very long—apparently longer than the measure taken by the tape in the ordinary way indicates.

The stooping figure has a slight bust, long and wide back, and short and narrow front, and wrinkles would probably show across the bust and under the arm, level with the top of the side, and also down the front of the shoulder ; whilst the back would be short-waisted and form large wrinkles across, also at level of side, though the length may still be seen pushed up to the neck, which is much too

high for comfort. The fitter can either take out the little waist seam in the lining to raise the waist-line of the front where it joins the side-piece, or take up a little seam from the inset down to the top of the back dart, also in the lining, and stretch the material down over it, drawing out the surplus fulness at the centre of the back dart; or the dress can be wadded well round the arm-holes and down the hollow front, in preference to stretching-out. It must be remembered that wadding is a great boon to those hollow-shouldered or spare-chested people who, without its use, have to choose between untidy and unsightly wrinkles down the front shoulders, or a dress painfully tight across the chest from arm to arm. Such figures may need two or three thicknesses of wadding to give comfort, combined with a smoothly-fitting front shoulder; but of course these are only occasionally met with.

The wrinkles across the back at the top of the side-seam arise from the pressure of the shoulder-blades on the straight lines of the seams; if the backs are cut half an inch longer than the curved side-pieces, and, at two inches below the top of the curved side-seam, the extra length is eased in over a space of two to two and a half inches, the strain will disappear, especially if, in addition, the back shoulder is cut half an inch longer than the front one, and is well eased on to it, the front one being strained as much as possible during the process, and any little excess let off at the arm-hole, and afterwards pared away.

Either stout or square-shouldered figures require less slant (or slope) on the shoulder-seams than slight ones, and may need these letting-off at the arm-hole ends only, whilst the slight figure requires a dress much higher at the back of the neck and with the front neck-curve (at the turn of the neck) much more hollowed out; and the short-backed, upright figure, again, not only because the bust is larger, but because the head is set further back on the shoulders, needs far more outward slope from neck to bust than the slight

figure, for which the smallest curve between neck and waist may suffice.

All large, matronly figures, whether well or ill formed, have short sides and large shoulders, and generally have less hollow at the front of the waist than younger, slight figures; with such figures the fronts will wrinkle across between the darts, and also between the darts and front edges, unless they are either thrown out in the drafting or let out in the fitting-on for about half an inch all the way from the bust to the bottom of the bodice. This should be done, of course, without altering the shape of the fronts, care being taken to preserve the run of the lines in every other respect. Such figures require a fair-sized cross-seam or dart at the bust, in the lining only. Where the bust is inclined to spread away under the arms, the chest of the bodice should be made as wide as the figure can carry, and the hollows wadded in such a way as to keep the bust as forward as possible; this is helped by carrying the bones in the side seams as high as comfort will permit.

CHAPTER III.

FASTENINGS.

Standard Fastenings—Fancy and Ornamental Fastenings—Suitability to Material and to Prevailing Fashions in Trimming—Buttons and Button-holes—Cutting and Making of Ordinary Button-holes—Tailors' Button-holes—Round-ended Button-holes—Arrangements of Fronts for Hooks and Eyelet Holes—Hooks and Made Loops of Silk or Thread—Hooks and Wire Eyes—Lacing—Blind Fastenings—Ornamental or Fancy Fastenings.

FASTENINGS for dresses may be divided into three classes : ordinary, or standard fastenings, which never go entirely out of fashion ; blind fastenings, used only for lined blouses, or full-fronted washing bodices, or where it is *de rigueur* to entirely conceal the opening ; and ornamental fastenings, which are generally decorative, and nearly always necessitate the dress being fastened invisibly by a standard fastening.

Ordinary or Standard Fastenings.

Buttons and button-holes.

Hooks and eyelet-holes.

Hooks and made loops of silk or thread.

Hooks and wire eyes (edge to edge).

Lacing.

Blind Fastenings.

The linings only are fastened together, the outer material being quite separate from them, and drawn down or across to quite conceal the closing.

Ornamental or Fancy Fastenings.

Buttons and cord loops or worked loops, for wrists of sleeves.

Braid froggings and barrel buttons

Lacing over buttons

Lacing through rings

Fastening with clasps

Fastening with studs and eyelet-holes (for shirt blouses with stiffened front hems).

} Require a secure
standard fasten-
ing as well.

Buttons and button-holes are suitable for cottons and firm woollens, and are often used for silk, velvet, and other firm, rich stuffs, very handsome and costly buttons being often chosen in the latter case. For washing-dresses, buttons are not simply sewn on, as with those of other material, the method described on page 161 being usually adopted.

Hooks and eyelets are used for full-fronted bodices of soft stuffs, whether woollen or silk, also occasionally on cotton, though hooks are unsuitable for any material that will require washing (see page 160).

Hooks and eyes, edge to edge, are used for loosely-woven stuffs, such as cheviots, hopsacks, or open stuffs that fray easily, and are not safe to cut or pierce for button-holes or eyelets. (Occasionally the fashion prevails of fastening such materials with hooks and eyelets, and buttons are sewn down the edge of the right front to simulate a buttoned front, imitation button-holes of fine cord being also sewn on to make the illusion more complete.) Also for braided fronts of dresses or jackets, where invisible fastenings are required, especially where the braiding makes it desirable that both sides of the front should meet exactly at the centre line of the figure, or when one front rising above the other, as buttoned fronts do, would spoil the general effect of the ornamentation.

Hooks and made loops of silk or thread are used chiefly for collar, placket, etc., or where one portion of the dress fastens across another, as bodice fronts draped across from shoulder to hip, etc. They were at one time the standard fastening for silk dresses fastening at the back, as they were easier to close than hooks and eyes, but they have now fallen largely out of use.

Lacing is generally used for rich stuffs, such as silk, satin, brocade, etc., and also for evening dresses of any material. It is the favourite fastening for dresses closing at the back. Hooks and loops seem the only possible fastening for dresses of lace, grenadine, and all light, gauzy fabrics of the

kind, as it hardly seems safe to pierce them for eyelets or holes ; but loops pull back, and do not hold a close-fitting plain bodice well together. It is therefore better to make eyelet-holes through the silk backing and lining only, turning the lace or grenadine under quite close to them and slip-stitching it down. Where this method cannot be adopted, loops or eyelet-holes would be used according to the style in which the bodice is made ; but wherever it is possible to do so, it is best to choose a full soft style and blind-fasten the linings firmly beneath, drawing the folds across and slightly securing them with the trimming, or an ornamental fastening of some kind, such as a bow, pair of clasps, etc. Where eyelet-holes are made in very thin, soft fabrics, or those inclined to fray, a small eye should be put behind each one and the overcasting worked over it ; this strengthens the holes and prevents their tearing open.

The arrangement of the front edges for buttons and button-holes is detailed on page 37.

Button-holes for dress-bodices should be round at the end where the pull comes and square at the other ; they look most complete at the square end if it is finished with a little loop or bar worked across it. The loop should be free from the dress and about five stitches long ; the purl of the stitch should be drawn directly upwards from the work, not lying either towards the hole or away from it.



Fig. 2.—Button-hole (ordinary) for Dress Bodice.

Several varieties of button-hole stitch are given (p. 114), any of which may be correctly used. The growing appreciation of tailor-made garments has created a strong feeling for button-holes with an open rounded end, such as tailors make ; and with the thicker materials worn during the time plain lined skirts have been in vogue, and with the small buttons, pear-shaped behind but flat on the face, which have been used during the period, they have been found necessary, and are now preferred even for buttons with long shanks.

Tailors snip a triangular wedge from the end of the hole and work it into shape as they go, the gimp or fine cord which they keep at the edge, and work over, aiding the shaping materially; but with soft dress stuffs this plan has its dangers, and the use of a punch to clearly cut out the scrap of hole has much to recommend it. Or a good round-ended button-hole of this class can be made on dress stuffs by adopting the following method:—Mark the button-holes first; pierce an eyelet-hole where the round end of the button-hole is to come, and lightly overcast it; run the button-hole and cut it, putting the scissors-point into the eyelet-hole and cutting the eyelet-hole to start the slit; work all in button-hole stitch, finishing the square end with the small loop, as already explained.



Fig. 3.—Button-hole with open end (Tailor style).



Fig. 4.—Round-ended Button-hole.

The marks for buttons should be twice their own diameter apart, this leaving a space equal to their own diameter between them; for ordinary small buttons this space is usually one inch. Button-holes must be just a shade longer than the diameter of the buttons if the latter are flat, or a diameter and a half if they have rounded surfaces, such buttons requiring a longer hole to allow them to slip through. The edge of the button-hole front should be turned rather more than half the diameter of the button beyond the fitting-line (the ends of the holes coming quite to the fitting-lines), if the buttons are not to hang over.

For hooks and eyelet-holes, or hooks and loops, the fronts of the bodice are turned exactly as for buttons and button-holes, as far as the fitting-lines are concerned, the hooks being sewn on the right front, and the eyelet-holes or loops worked on the left one. The left-hand front is prepared exactly the same as for buttons, with from three-quarters of an inch to an inch of stand beyond the fitting-line; a ribbon or length of Paris binding is tacked down

to make a firm foundation, and then the sarcenet facing is neatly hemmed in. The eyelet-holes are worked through the sarcenet facing; the loops, if desired, may be worked on the firm binding before the facing is hemmed in, that no stitch may be visible inside. The right front is turned in at a quarter-inch outside the fitting-line, but the piece turned in is left quite an inch wide, and needs slightly fulling at the bust and snipping across at the waist to make it lie smoothly; five tiny snips or cuts should give ease without leaving a thin place at the waist. The stuff and lining turned over should be fastened firmly to the lining of the front by a kind of rough herring-bone stitch, worked from right to left, which is used in dressmaking to secure edges that are afterwards to be covered with a binding (see page 110). One stitch takes the lining only, the next is through the stuff and lining turned over and the lining of the front as well, taking up all but the outside material. The raw edges being fastened down, the hooks are next firmly sewn on through the two little holes or rings, and across the shank close to the turn, the stitches taking up all but the outside stuff. This latter point is essential, as, if only sewn to the stuff and lining turned over, they would have no pull on the bodice itself, and would draw out and show between the front edges, instead of bringing them closely together. The hooks are put with the turn to come just to the fitting-lines (quite a quarter of an inch under the edge of the front), and being sewn on, the sarcenet facing or a ribbon is slipped up over the sewing as high as the turn of the hooks, and hemmed closely down. The other edge is hemmed to the lining of the front, far enough back to cover all the rough sewing, only leaving visible as much of the hook as clips into the eye.

If the lining only of the front is turned over the quarter-inch outside the fitting-line, and a fine firm piping cord run in the edge and securely fastened at top and bottom, slightly tight for the length, and then the stuff turned over and the

front finished as previously explained, it is a distinct improvement to the outside appearance of the bodice, and the corded edge, being tightened, sets closely over the ends of the hooks and reduces the risk of their gleaming through; if well done, it conceals them entirely.

Some very neat workers press apart the two thicknesses of wire which make the hook, and overcast all that is visible with silk or cotton matching the dress in colour, and do the same with the wire eyes. This is only necessary when the fronts of the bodice are quite plain and the gleam of the metal is likely to show, as with hooks and eyes edge to edge; and even there care in setting the fastenings well under the edge will save the actual necessity for a very laborious piece of work, though, as far as appearances go, the overcasting is effective. It should be done in "loop-stitch."

Eyelet-holes are made on the left-hand front, through the fitting-line, Paris binding, and facing, and should be three-quarters of an inch apart, or half an inch if very close fastenings are preferred. The holes are pierced from the outside with a stiletto, and closely overcast with button-hole twist, the stitch being firmly drawn up to tighten the edge of the hole and keep it well opened and to shape.

No. 1 (Fig. 5) is for eyelet-holes to be used with hooks, but loop-stitch is preferable for laced holes, as more ornamental. Button-hole stitch is not advisable for eyelet-holes, as it cannot be drawn up closely, and the purls fill the hole if it is worked in the usual way, but pretty ornamental eyelet-holes are made by first piercing and closely overcasting, and finally finishing off with button-hole stitch, the purl drawn back to make a raised cording a little way in from the edge.

Eyelet-holes for lacing may be as close as half an inch if preferred so.



Fig. 5.—Eyelet-holes. 1, for Hooks; 2, for Lacing.

Loops also are made on the fitting-line, the length of the loop the same way as the length of the line, if they are used for front fastenings, and the foundation stitches should certainly be made on the Paris binding, though not necessarily through the facing as well. Loops should be a quarter of an inch long, and four strands of silk used for the foundation threads, on which the "loop" stitch (see page 108) should be closely worked, the twist or purl being drawn to form itself at the outside edge of the loop. Rapid



Fig. 6.—Loop-making.

workers pass the eye of the needle under the foundation strands, as the point is more likely to catch in the material. Extra strength and solidity are given to this fastening if the first and last stitches of the overcasting are made through the material, lining, and Paris binding as well as over the foundation strands, thus relieving the latter of some of the strain. If loops are worked on a bodice fastening across, a ribbon should be put inside and the stitches worked upon it, to relieve the soft dress material of the strain, and the length of the

loops should follow the direction of the line of closing.

For hooks and eyes, edge to edge, both fronts should be turned exactly by the fitting-lines, or the merest shade beyond them, and both edges finished with a stitching at the edge and a slot for edge-bones, or the slot in the lining only as described under "Lacings" (p. 76), the bones to stop at the height of the darts. Quite an inch of stuff and lining is turned over on each front, and roughly fastened down to the lining, and in every respect the right-hand front is finished as explained for hooks, whether it is finished with hooks only, or with hooks and eyes placed alternately. If the latter, the eyes are sewn through the two little rings and also across each side of the eye proper, the sarcenet facing hiding both sewings. The left-hand front is turned over for the edge-bone, rough herring-boned down

raw-edged, and the eyes sewn on through all but the outside stuff, through the rings, and across each side of the eye itself, as already explained, or hooks and eyes are sewn on alternately, if that arrangement is preferred. A flap or wrap must now be sewn to the lining of the left-hand front, to come under the fastenings when closed, and take the place of the button-stand, which cannot be cut in one with the front when either hooks and eyes (edge to edge) or lacings are used. High-class workers make the wrap of single stuff and line it with the sarcenet facing, which is cut wider and left open at the inner edge; the stuff only is stitched along by the sewing-on of the eyes, the sarcenet then being hemmed down to the lining to make a complete finish to all. A strip of the stuff on the cross, about three or four inches wide, makes a neat wrap, as it is thin, and the cross yields to the curves of the figure. The two raw edges should be placed together, and run or stitched along to the front just where the eyes are caught down to it, the sewing taking up all but the outside stuff. The sarcenet facing can then be placed over the raw edges and the lines of stitching and hemmed along, and the other edge hemmed in to the lining as before. With thick stuffs the wrap is often of single stuff only, and either bound with china ribbon, pinked, or overcast; its usual width is one inch beyond the bodice edge.

The chief objection to ordinary hooks and eyes is their tendency to come unfastened; various plans of arranging the fastenings to prevent this are in general use, but without any large measure of success. Lately, however, a good deal of attention has been given to hooks, and several very useful inventions have been brought before the public in the way of patent hooks which will not come unfastened. Some of these have a steel spring in the turn, and others are bent in such a way that the eye or eyelet-hole will not slip from them without firm pressure. Hooks in use in dressmaking are—Ordinary bodice hooks, skirt hooks; patent

hooks—"Duplex" patent hooks (bent turn), "Pym's" patent hooks and eyes (wide base and spring in turn), "Nautilus" hooks and eyes (large and square, for attaching skirt to bodice), etc.

For *lacings*, both fronts are turned in by the fitting-lines, or the merest shade beyond them, and a row of fine machine-stitching in silk made close to the edge (about one-eighth of an inch in), through which a fine cord may be drawn the whole length of the bodice, if preferred, though this is not usual. The turnings should be snipped at the waist to ensure ease, and a second row of stitching made about a quarter of an inch inside the first one. The distance between the two rows of stitching should make a slot wide enough to allow a length of whalebone or a narrow edge-bone to be easily slipped into it, but not wider, and the slits at the waist, which are necessary if the dress is to sit close there, do not matter, as they will be covered by the sarcenet facing, which is now to be hemmed firmly along the first line of machine-stitching, and also to the lining of the front as usual. Behind the slots for the bones come the eyelet-holes, which are to be made exactly opposite each other and half an inch apart. A narrow ribbon or Paris binding may be put behind them to strengthen them, but it should be tacked very easily down the length, especially below the bust. The same caution applies to the facing, which should be well fullered on and be amply long when the bones are pushed in and the fronts strained down to their utmost extent. The ribbon should be inside the facing and quite out of sight. The eyelet-holes will of course be worked through the facing as well as through the ribbon, and after they are made the left front is finished with a wrap, one of single material on the cross lined with sarcenet giving the best finish.

The bones should be very narrow, rounded at the top and slanted for the points, and should have holes pierced through both ends. The upper end should be sewn firmly to

the inside of the slot by a "fan" of stitches, and quite an inch from the top, if it is an evening bodice, or the edge will stand off from the figure; and high bodices lacing up the whole length of the front should be carefully arranged in this particular, one and a half inches below the collar not being too low for the end of the bone, as if it is the full length it presses against the throat, and may do it lasting injury. The upper ends being secured, the bones are pressed up gently into the slot and the bodice smoothed down over them till the fronts are thoroughly well strained down; each lower end is then secured to the inside of the slot, and the bodice edge turned up just sufficiently far below it to prevent the push of the bone showing. Slips of thin cane are sometimes used instead of bone for edge-bones, and are both strong and flexible. Sometimes a second bone is put behind the eyelet-holes, making two bones to each front; in this case it is better to make the slots through a shaped piece of firm silk or linen, cut as wide as may be required, put in easily up the length, taken in with the first line of machining to fix it (close to which the portion of the fronts turned over may be cut away inside). The slots being made, and the linen covered entirely by the facing, the eyelet-holes may be worked through all.

Where the machining on the face is disliked, stitching by hand may be substituted, or the slots may be made in the lining only and the stuff smoothed over, but it is apt to bag off slightly and give an unfinished look to the fronts if they are untrimmed.

High bodices are seldom laced quite up to the neck; it is more usual to have some variety of fulness down to the bust or a little below it, fastened by hooks and eyelet-holes, and the lacing below the bust only. In this case the bones should only come as high as the darts, or the upper ends will stand off.

For blind fastenings, whether buttons and button-holes or hooks and eyes are used, the outside of each lining front

should be first faced down with a strip of the outer material, about three inches wide, which is laid on the lining, and the front fitting-lines tacked through. The inner edges of the strips are hemmed or machined down, and the front edges would then be turned, faced, and finished for the required fastening exactly as if the lining fronts were completely covered with stuff, except that the fastenings would be farther apart, and the loose fronts of material folded or shaped across to conceal them.

Occasionally the outer fronts are also fastened invisibly, tiny buttons and button-holes being used. The buttons are sewn on the outside of the loose front, which is then turned over to allow the button to pass into the hole from the outside. When closed, neither buttons nor holes are visible.

The pull of such blind fastenings would show with close-fitting bodices; they would therefore be quite unsuitable for them.

Edge-to-edge fastenings are less likely to wrinkle and draw apart at the waist if a straight line from bust to point of bodice is used for the front fitting-lines. The extra size can be taken out in the front of the first dart. Great care should be taken in trying-on bodices which are to be so fastened, as excessive length between bust and waist is the chief cause of gaping and drawing apart.

CHAPTER IV.

BONES AND BONING.

Why Bones are used—Essentials of Good Bones—Whalebone—The Old-fashioned Method of Sewing-in—Bones in the curved Seams and the centre Seam of the Back, etc.—Curling-up and its Remedy—Natural and Artificial Substitutes for Whalebone: their Defects—French Horn—Cased Steels and Edge-bones—Antarctic Bone—Feather-bone—Fin-bone, etc.—Different Methods of Attachment to Bodice—Usual Prices.

WITH any attempt to wear a very close-fitting unboned bodice, it is soon evident that the movements of the arms and shoulders lift the waist out of place, and, as there is no weight or tension to draw it back again, it remains up, and the surplus length thus created forms itself into a mass of fine wrinkles across each piece between the seams. The stitching of the seams also yields to the strain of the figure, as there is no downward strain to counteract it, and every stitch draws slightly apart, increasing the wrinkling in the same proportion as the lengths of the seams are shortened. Bones are used in bodices to obviate this. The use of the bones is therefore to keep the length of each seam smooth, and to slightly stiffen it, that the waist may remain in its right place and the bodice sit close to the figure without wrinkling. They also serve to keep the lower part (sometimes called the basque) of short (pointed or round) bodices from curling up, and, sewn under the buttons, keep the fronts smooth and the points of the bodice from rising up. They do not, as a rule, improve the appearance of a bodice that fits imperfectly, and should not be relied upon to remedy defects, which they are more likely to

accentuate, especially if these take the form of seams sprung out sharply from the waist, or badly turned there in the machining. With hooks and eyes (edge to edge) or with lacings they stiffen the bodice edges so that they can be drawn closely together and set smoothly down the figure, instead of drawing apart between each hook and eye or each pair of eyelet-holes, as unstiffened edges would do. The bone or substitute should be thin, not to take up much room inside the bodice; flexible, that it may readily adapt itself to the curves of the figure; elastic, that it may not be easily bent out of shape, but if turned up will spring back again; and above all, strong, fine in grain, and cut exactly with the fibre, that it may not easily snap. Brittle bones in a bodice are a source of great annoyance.

Whalebone unites in itself all the good qualities above enumerated, and is therefore the standard bone used in dressmaking.

It was at one time a fashion to join the bodice seams in such a way as to bring the turnings outside, thus leaving the inside quite neat, and to finish on the face by pressing the seam open, and hemming a ribbon down each side to entirely conceal the turnings. To keep all smooth, a length of whalebone was tacked to top and bottom of the seam, outside the dress but under the ribbon. This was when the curved seams only were piped or corded, and a survival of it may yet be traced in the habit of fixing the under-arm seam with the turnings outside for trying on, which many dressmakers still keep. In time people tired of the bone outside the bodice; it therefore went inside, and for a long time was stitched between the turnings, which were not then laid open, but finished fourfold, the two stuffs and two linings being overcast together with the bones between them, as may still be seen in the work of old-fashioned country dressmakers, who cling tenaciously to the old rule, and enclose the bones in the darts, where in time they push through to the outside of the bodice and ruin it utterly.

The method answered well enough with the short-waisted bodice of the period, as now with any bodice not extending below the waist (though such thick seams are clumsy and apt to show through if the fit is close); but where there is a basque extending below the waist, if only for a few inches, the curve of the seam presses the ends of the bones forward, and they soon make their way through the outside material and lining. They are now therefore always put quite inside the seams, and both ends left loose for from one-half to three-quarters of an inch, that the push of the bone may be on the ribbon in which it is encased, and not against the bodice itself.

In high-class work a strong narrow ribbon (galloon, silk binding, or for very delicate fabrics good sarcenet ribbon) is made into casings for the bones. These should reach about as high as the level of the bust at all seams; it is not wise to carry them higher at back or front, where the curves of the figure begin to recede; but, if preferred, they may be carried up to within two inches of the side-level on the two straight seams under the arms. The end of the ribbon should be turned over and sewn down each side for a full inch, thus forming a little pocket, against the top of which the bone presses. It is then finely herring-boned, cross-stitched, or hemmed down each side to the turnings only of the seams, an extra inch of fulness being allowed in the length, which is to be eased on at the waist and for about two inches above and below it. The sewing-in should be stopped about three-quarters of an inch short of the top of the casing, the pocket being left free, and not fastened to the bodice in any way, and the same at the bottom end, where an extra half-inch of ribbon is also allowed, which is afterwards to be turned up over the end of the bone and stitched to it to keep it from pressing down to the edge of the bodice and pushing against it.

If the ribbon is folded exactly down the length and the

fold pinched along, it assists the worker to keep the centre of the casing exactly on the seam ; and if any difficulty is experienced in regulating the quantity of fulness about the waist, the edges of the casings at that part may be whipped along and drawn up into the required length first, the whipping thread to be drawn out after the sewing is done. The rules of extra fulness at the waist and above and below it, and of loose ends, must be carried out, whether casings or cased bones are used. For the latter, the surplus fulness of the casing should be pushed towards the waist and eased on there, and a little above and below it. The rest of the casing should be cross-stitched, herring-boned, or hemmed down to the seam without strain, the dress being held over the hand to keep the bones rounded at the waist whilst the stitching is done. This certainly causes the material to get more handling than the use of bone casings, as the latter can be stitched in with the bodice lying on the knee or table, the turnings only being held in the fingers, whilst with cased bones it is necessary to hold each seam on the hand and strain it. With pile fabrics, or those easily crushed or soiled, this is a serious consideration, and is, no doubt, the reason why cased bones, steels, etc., are considered to belong to an inferior class of work. The double casing, too, makes an increase of bulk, very slight, but taken into account by particular wearers.

The strips of whalebone require cutting into suitable lengths for use (one half-inch longer than the casing after the latter has been sewn in, which has shortened it to the extent of the quantity fullered at the waist, and turned over at the ends) ; the ends are rounded and scraped smooth, and a little hole pierced in each, which is done either with the point of a pair of scissors or a hot knitting-needle ; or, in large establishments, with a punch, which stamps out a clear hole ; those bought in dozens or sets are generally already rounded and pierced.

The bones being prepared, are slipped up between the

casing and the seam, the top ends into the little pockets, where they are fastened by the "fan" of five or seven stitches (shown at page 113), the half-inch of extra length left on the bottom of the casing being turned up under each bone and securely sewn to it. This presses the length of the bone up into that part of the ribbon which has been eased at the waist, and slightly rounds it there. They should then be gently bent to the shape they will take when the bodice is on, the bend being a very little above the waist, that it may set the dress well down as it comes to the figure. Some workers adopt the plan of soaking the bones in hot water, and shaping them, whilst softened, to the curves of the figure. Either plan prevents straining of the seams until the bones have shaped themselves to the body of the wearer. The upper and lower ends should also be slightly bent inward, to prevent them from showing through the outside stuff, as they are apt to do if this slight precaution has not been taken.

For perfectly plain bodices there should be a bone at every seam, with an extra one to each front (the casing sewn to the lining only) between the first seam and back dart, and one under the buttons also. (See Fig. 1, page 11.)

The question of deciding between bones or no bones in the centre seam of the back and the two curved seams is one that continually presents itself in different aspects, owing to changes of fashion. Where the back basque of the bodice is box-pleated, full in any way, or has a lapped centre seam, and is not sewn together much below the waist, it is wiser to stop the bones at the waist, or just sufficiently below it to keep the seams smooth. Pointed bodices are apt to curl up, and some dressmakers simplify this by using a triangular weight instead of a bone for the centre back seam, the curved seams being boned. The weight is very useful for short points where there is no centre back seam, as in Eton jackets, etc. The curved seams are likely to pull after boning, if the line of curve is one that begins to round

immediately above the waist—the straight bone does not lie to it, and cannot be manipulated ; in that case boning must be dispensed with.

Many wearers, especially stout ones, find the front points of the bodice curl up and stay up in wear ; this is remedied by sewing a strong piece of elastic to the bone, one end at the point and the other end to the bone again, nearly as high as the waist. The elastic should be about half an inch shorter than the bone, to curve it in a little, and when the pressure of the figure comes against it the point is kept firmly down. The elastic does not answer for the back point ; owing to the finishing of the back of the skirt at the waist there is nothing firm to press it out, and it remains bent.

For long bodices the bones, whether in casings or ready cased, end about four or five inches below the waist, and it is essential that the lower ends (as well as the upper) should be free from the seam for at least half an inch, to save the appearance of strain upon it.

The fact that whalebone is expensive (averaging one shilling per yard), and likely to become more so, has led to the use of many substitutes, some of which lack one or other of the good qualities possessed by whalebone. These substitutes are both natural and artificial—including horn, fins, quills, stiffened horse-hair, cane, vegetable fibre, vulcanite, steel, platinum, etc.—and are affected in various ways, according to their nature, by the natural warmth and moisture. Some are softened and lose their spring, and the fibres of others separate and fall apart ; unprotected steels rust, or rather, this was at one time the risk the dressmaker had to face when trying a new invention. Great attention is now given to these points by the manufacturers, and lack of spring is the chief defect of all the manufactured substitutes. There has arisen of late years the idea that two or more narrow strips of bone placed side by side in the seam give more spring with less danger of

breakage than single bones, and these "twin" steels and bones are to be obtained both covered and uncovered. Corrugating the surface is considered to give the same advantage. Whalebone or baleine is sold in lengths of from half a yard upwards, at from twopence to sixpence per length; it may also be bought ready cased in silk in graduated sets or dozens, prices varying with quality. French horn in its best qualities is presumably a natural production, and is sold in sets of graduated lengths (seven to ten inches), or in dozen-bundles at from sixpence per bundle upwards. It can also be bought in half-yard lengths, in light or dark colours, at from three-halfpence per length, and in these lengths and in the cheaper qualities is manifestly artificial.

Cased steels of various makes (the platinum-cased steels are included under this head) are now very well made; they are thin and flexible, the ends rounded and protected by shields, and the whole cased in double or tubular ribbon ready to be sewn in; they are sold in sets graduated in lengths, or in bundles of twelve, at prices ranging from fourpence-halfpenny per set or bundle upwards; a little more length on the ribbon casing would be an advantage, as there is not sufficient to ease it well at the waist. Edge-bones (very narrow steels, to be used for the front edges of dresses, fastening edge to edge, lacing or otherwise) belong to this class, and should be chosen as thin and flexible as possible.

Antarctic bone is a recent invention, and consists of short split lengths of whalebone bound together with cotton to make a continuous length; it is sold at from fivepence to sixpence the yard.

Feather-bone is of the same class—quills bound together with cotton to make a continuous length also—and is to be bought for fourpence-halfpenny the yard.

Fin-bone is presumably fins similarly prepared, and there are also the "Coraline" dress stiffener, "Flexyle," "Corru-bone," and others too numerous to mention.

CHAPTER V.

LININGS.

BODICE LININGS, Old-fashioned and Modern—Suitability to Figure and to Material—Linings too Hard or too Soft—Linen on the Cross—Twilled Silesia—Twilled Lining Silk—Italian Cloth—Sateen—Calico—Silk Bodice Lining—Jaeger Linings.—SKIRT LININGS—Essential Qualities—The Best Lining—Silk—Alpaca—Russell or Persian Cords—Taffeta—Coloured Linen and Linenette—Silcot—Black Glazed Lining—Sateen—Italian Cloth—The Cutting of Skirt Linings—Beetling—Firm Crinoline Muslins.

Bodice Linings.—In a little old-fashioned book on dress-making (published in the days when the sewing-machine was a thing undreamt of) the writer informs her readers that a good strong unbleached linen or holland is the best lining for dress bodices; that the backs should be cut on the straight and the fronts on the cross, and that the wrist of each part of the sleeve, both upper and under, should be laid to a thread of the stuff running across from selvedge to selvedge.

The firm holland lining has been largely superseded by the sateen-faced, black-backed, twilled silesias now so generally used for middle-class dresses. A survival of the former flourishes in the form of a thick mingled grey lining made of black and white in imitation of linen, and known in the trade as an Oxford, which is much favoured by the working classes north of the Midlands. It is strong, thick, and warm, and does not soon show soil in wear, and for these reasons is preferred to slate-coloured silesia by our working people, though the latter is said to maintain its popularity in the Midlands and the South of England.

Many tailors use a fine firm linen or fine French canvas interlining for dresses which are to be afterwards lined with silk, but, so far as general use is concerned, holland or linen linings may be said to be quite out of date.

No doubt coloured linens will always be used for both bodice and skirt linings when very open fabrics (of the canvas order) are in fashion; but there is something naturally repugnant about a dark inside to bodice linings, and most wearers object to them unless their use is rendered absolutely necessary by the combined pressure of fashion and economy, as, where the latter is not an important item, there is always the alternative of a reversible lining (or foundation) silk to fall back upon. These, firm glacé or soft twilled Surah, may be obtained in a variety of colourings, dark on one side and light on the other, but are hardly equal to the strain of steady everyday wear, especially where a close fit is required.

In the chapter on dress materials it is explained that twilled goods can be woven closer, and consequently are proportionately stronger in wear than plain ones of equal bulk, and this will probably explain why the sateen-finished twilled silesia has supplanted the lining of holland. The prevailing fashions in dress bodices practically make the fitting depend to a large extent on the lining. They make it imperative that it be not bulky, and that it unite in itself the qualities of fineness, firmness, and elasticity in the highest degree, as it is to sustain the figure without increasing its size, and to follow and cling to all its curves and hollows; and yet it must also be well adapted to the outside stuff.

A lining which is too firm for the material made up with it presses against it and makes it look poor and thin, as though it were stretched over wood, and the looseness which good tacking-out always allows shows in ugly cracks or creases, which are unsightly and soon rub through. By not yielding as readily as the outside stuff, it causes the

latter to bag off instead of moulding to the hollows of the figure, thus making it appear too loose for the lining, whilst the appearance of the figure itself is quite spoilt by the ill-defined outline which the hard unyielding bodice presents.

Cheap slate silesia has this fault, when the buyer mistakes stiffness for goodness, and hard white calico is often chosen for washing-dresses under the same mistaken impression. The hard white calico (very little improved by being soaked overnight in cold water) is extremely objectionable, as it is hardly possible to drive the needle through it, and it is as hard to work upon as it is difficult to fit. Scalding improves it, but only a little.

On the other hand, a lining which is too soft does not sustain the figure sufficiently, and allows it to throw most of the strain of the fitting on the outside stuff, which, yielding in its turn, either loses shape and makes the bodice become loose and short-waisted, or splits where the strain is greatest. Either of these faults is very serious, and should be carefully guarded against, especially when the dress is one for a stout figure, or for hard or heavy wear.

Linen on the cross is firm and flexible, but cuts up very extravagantly for bodices with many seams extending below the waist, is cold to the wearer in all but summer weather, and, unless in very fine qualities, is apt to be bulky. With the extremely close fit demanded by the fashions of the day, and with the loosely-woven materials which grow more and more into public favour, there is, too, the danger of the light-coloured lining showing itself in tiny flecks in the lines of stitching at the seams when the bodice is strained on the figure of the wearer.

The black-backed, sateen-finished twilled silesia is fine, yielding enough to follow the curves of the figure, yet firm enough to support it. The dark back saves the danger of the white specks in the line of seams being visible, and the pretty fancy-patterned inside is pleasing to the eye, and less readily shows the slight soil of the

making or wearing than does a plain self-coloured lining. In addition, it is not hard, but is still firm enough to be used satisfactorily with most of the materials in general wear, and for all these reasons it is usually chosen for dark-coloured, middle-class woollen dresses, and not alone for these, but for many others where its use is not considered strictly correct.

Twilled lining silk is firm, smooth, thin, soft, and flexible, but has the objection of either putting the dark inside to the skin, or, if light, of being liable to show at the seams, and the greater one of being too expensive for the majority of wearers. Silk is accounted the perfection of bodice linings, and is properly used for all rich stuffs, such as silk, satin, velvet, plush, brocade, etc., though, where expense has to be considered, a good twilled silesia, Italian cloth, or sateen is often considered a satisfactory substitute for it, especially with the addition of an interlining of soft mull muslin to relieve the outside material of strain and to add to the softness and richness of its appearance. Velveteen is lined in this way.

Many dressmakers prefer a lining of fine Italian cloth, matching the outside stuff in colour, for dresses of silk, brocade, etc., for portly middle-aged wearers, considering that it unites firmness with softness, and wears better than silk. It is certainly very nice for the purpose, but it should be chosen fine and of good quality, or it is apt to split and to be bulky in the seams. It must be borne in mind, however, that Italian cloth is a tailor's and *not* a dressmaker's lining, and is only correctly used for tailor-made garments with the seams between. A lining of gros-grain silk (with the use of which the sides of the fronts should be thrown on the cross) is also favoured for large or stout figures.

Sateen is very soft, and is more suitable for silk blouses or long gowns, where the weight of the skirt helps to keep it down, than for plain close-fitting bodices; but dressmakers

are compelled to use it largely for both bodices and skirts of summer woollens of light colour and texture, such as delaines, as the colour of the finished dress is very much affected by the lining, which shows through; and if the two colours do not match, the result is very disagreeable.

The mingled grey Oxford, "whitey-brown" or unbleached calico, and common slate silesia, are the linings generally chosen for very common dresses and by the uninformed.

Calico is generally used for servants' and common print or cotton dresses. Thin holland, calico, white silesia, fine cotton cambric or pale sateen to match the material, are all used for lining print, sateens, muslins, and for ladies' and children's washing-dresses generally; light-backed sateen-finished twilled silesia, plain, or *broché* with self-coloured designs, for light stuffs;—black-backed silesia for dark or medium woollens; better qualities being often chosen for silk, satin, plush, etc., though the correct lining for high-class woollens and all silk fabrics is twilled foundation silk. Twilled silesia, or coloured linen to match the outside stuff as nearly as possible, should be used for both the bodice and skirt linings of open woollen stuffs, such as canvas, etc.

Transparent rich materials—grenadine, lace, net, chiffon, etc.—should be mounted on good silk or satin, and are often lined with silesia as well when fashion ordains that the style chosen shall be perfectly plain and close, and the figure is one requiring more strength in the lining than the silk alone will give. A less expensive substitute for the silk lining is a backing of sarcenet to the lace and a lining of cotton cambric; both are very thin, the two together not making more bulk than an ordinary black-backed silesia, and giving for black the combined advantages of black silk under the lace and a pure white inside to the bodice. Mourning crape is mounted on either mull muslin or domette, however lined; silk is the best lining for it.

It may not be generally known to non-professional dress-

makers that a firm twilled silk bodice lining with a black back can be bought at all the leading drapers. It is twenty-two inches wide and costs about two-and-sixpence the yard, and, except that the face is silk, might easily be taken for a very good black-backed silesia, the patterns being of the same class of design and the back blacked in the same way. The black back makes it quite unsuitable for open or transparent fabrics. It is much to be regretted that a good black silk back is not to be obtained, and that the insides of dresses of such dainty fabrics must either be dark or a second lining (white cambric or sarcenet) used inside the silk.

For those who follow out the Jaeger theory of clothing the body in garments made from animal fibre only, the woollen Jaeger dress-linings should be used ; they are fine and soft, and are considered specially suitable for chilly people or those inclined to rheumatism and chest complaints. They are of course more bulky than cotton or silk linings, but give a soft and rich appearance to all stuffs, and may be used for silk and for rich fabrics of the class without the mull muslin interlining.

The fitting or sewing lines of the pattern are generally transferred to the doubled lining by the use of a tracing-wheel or stiletto, which thus conveys the outlines to each pair of pieces of lining at the same time. Self-coloured plain linings show the tracing-wheel marks better than patterned ones, and the same holds good of Italian cloth, sateen, and calico. Plain silk linings also show the wheel-marks if they are carefully followed immediately after wheeling, but they are apt to close up quickly, and it is better to lightly pencil them over at once. The same may be said of the woollen Jaeger linings and of the mingled grey and the unbleached or whitey-brown calico, which, as they are preferred by a number of wearers, it is not fair to ignore. Inexperienced workers may prefer to cut the pattern down to the fitting-lines and pencil round each piece separately. Where this

is done, care should be taken to cut the fitting-lines quite away, especially the lines of the darts, and the arm-hole and neck curves, or the marks fall inside the darts and above the neck, and inside the arm-hole curves instead of upon them, whilst pencilling outside the body-lines instead of upon them adds considerably to the bust and waist size of the bodice.

Skirt Linings.—The selection of good lining plays a very important part in the satisfactory turning out of a skirt. It should be firm and closely woven, that it may not drop in the length when the weight of the bottom finishings and trimmings is placed upon it, or split or give way under it; it should be inclined to hang outwards instead of falling in to the feet and twisting itself among the folds of the underskirts; smooth, to slip down easily over the skirts and stay so; fine, that it may not rub through the soft outside material, or impoverish its appearance by harshness of outline in the seams; supple, to bear being held in the hand when the skirt is lifted in walking, and yet to spring back without showing marks of crushing when the skirt is dropped again; durable, to stand wear. Above all, it should be light in weight and neither heating nor chilling to the wearer, and should be good enough in quality to keep its colour fairly well. The lining is usually chosen as close in colour to the outside material as possible, but the black back is not essential; such linings are only used for dark princess dresses, and then a deep inside hem of stuff quite to the knee is imperative, light insides to dark skirts soiling too quickly to be considered necessary or advisable.

Silk—rustling glacé, or twilled foundation—is the lining *par excellence* for skirts, but is too expensive even in the poorer qualities for general use; those materials that most resemble it in sound and hang are the favourite substitutes. Alpaca is a material that will slip on and down easily, that will hang out well without stiffness, and

that is fairly durable in wear, and it may be regarded as the standard foundation material for middle-class woollen dresses; its chief fault is its liability to split, and for this reason Russell or Persian cords are often preferred as being more suited for hard wear; but these fabrics, though durable, are hard, and inclined to rub through a soft outside material. Taffeta comes between the alpaca and cord as a favourite, firm coloured linen and linenette are both excellent, and varieties of silkette or silcot (cottons finished to look and feel like silk) are also very nice and are all in general use; whilst those who choose the mingled grey for bodice lining are apt to prefer black glazed lining for the skirt.

Sateen is very soft, and should only be used for washing-dresses (with muslin-lined facings) or in conjunction with full flounces, ruches, or some other full bottom-edge trimmings; for as a rule, though a hard lining is objectionable in a skirt, a soft one is more so, as it drops in at the feet and impedes free movement, and is therefore neither graceful nor comfortable. Soft linings are, however, sometimes used for foundation skirts under draperies, where their softness allows them to drop close and so give the maximum of effect to the draperies with the minimum of bulk. For such skirts sateen is the favourite foundation material.

Italian cloth is a good lining for silk or velvet when not made in the seams. These rich fabrics are often interlined with mull muslin; trained silk skirts are frequently interlined with domette, which gives them a full rich flow, and adds materially to the beauty of both the style and the material. Velvet or velveteen should never be lined with anything that will rub in the slightest degree, or the pile will be loosened and the fabric gradually impoverished from the back. Polonaise, a mixture of silk and cotton, which has the appearance of a soft dull silk with a distinct serge-like twill, is very much used as a skirt-lining for rich materials.

Skirt linings should in all cases be cut the same way of

the stuff as the outside material, and when the two are of different widths the question of cutting without waste is sure to arise. This must be arranged at the time according to the respective widths, the material being always cut first and the lining shaped to it; and it will often be found advantageous to cut the lengths of lining and join them before shaping, as there is less handling of the biassed seams and less chance of stretching them. As the curves of the figure below the waist are outward, extra length in the lining is not needed; but the pressure of the knees in walking or sitting is forward, and it is therefore usual to cut the linings of skirts a little wider than the outside material, half an inch to each gore or about two inches on the whole skirt width. Beyond this, what has been said about bodice linings for transparent materials holds good for skirts.

Beetling—one of the processes of finishing cottons, during which they are beaten by heavy wooden mallets—flattens the threads and makes the cloth thinner and closer, consequently more pliable in fitting and silky to the touch; beetled plain linings generally show a marking like a slight water-waving on the surface. Bodice linings are almost invariably beetled.

Firm crinoline muslins (checked or corded), are used for interlinings when the fashion of wide flowing skirts prevails, or they may be the only lining used for skirts of light materials. Fine French canvas is used in the same way, and no doubt horse-hair or hair-cloth will be pressed into such service when a very full effect is desired.

CHAPTER VI.

STITCHES.

Easing—Good Sewing—Difference between Dressmaking and White Work—Value of Slip-Stitching—Choice of Needles, Threads, etc.—The Different Kinds of Tacking—Baisting—Seaming—Stitching—Back-Stitching—Running—Gathering and Gauging—Size of the Gathering-Stitch—Biassing—Shirring and Casing—Whipping—Overcasting—Loop-Stitch—Hooks and Eyes—False Hem—French Hem—"Roll" Hem—Invisible or Slip Hemming—Slip-Stitching—Herring-boning—Small and Large Cross-Stitch—Fans of Stitches—Fine-Drawing—Darning in Dressmaking—Button-hole Stitch, Ordinary and Tailors'—Stranding for Button-holes.

EASING is so closely associated with sewing that it comes naturally under the head of the present chapter. It is, strictly speaking, a process or a manner of holding the work whilst it is being pinned or sewn, but is so often used in dressmaking that it calls for a few words of special description.

It is sometimes necessary, either to insure room for free movement or to obtain a certain outside effect at some part of the work, to join two parts or lengths in such a way that the longer one shall be worked up into the length of the shorter one without showing a gathering or visible drawing-up. To attain this, the seam is held with the longest length towards the worker and the shortest one beneath it and away from her, and the work while in progress is held over the hand, or, in the case of seams, over the end of the left forefinger instead of flat upon it. Each stitch put into work so held takes up more of the upper portion than of the under, and so uses up the extra length very readily, and, where the turn over

with the forefinger is not quite sufficient, as with the highest part of the sleeve-head, a little push with the left thumb as the needle is taking up the stitch still further fulls or eases the longer length against the shorter one, and so helps on to the desired result. Sleeves and collar at the joining seams should look raised above the bodice itself, therefore upper sleeves are always well eased in and collars slightly eased on, and the effect is assisted if the turnings are neatened and laid under that side of the seam which is to appear most raised: thus arm-hole turnings are laid in the sleeve, neck turnings in the collar.

The sewing which has to be done in good dressmaking differs very largely in one important respect from that done in white work: the stitches very seldom show through on the right side.

Underclothing is constantly being washed whilst in use, and all the sewing put into it needs the first essential of durability. Close and small stitching is rendered absolutely necessary, as in the various stages of washing, drying, and ironing, the seams and hems are beaten, rubbed, shaken, and, in a sense, roughly handled, and large or loose stitches would break and allow raw edges to come out, which in turn would fray or tear across, and soon put an end to the usefulness of the garment. The fine work put into the seams and the careful double-turning of all raw edges is absolutely necessary with washing-garments, and this, together with the necessity for making all seams very flat (as they are to lie close to the body and the garments themselves are unlined), makes it almost impossible to avoid showing the stitches through to the right side. In white work this is admitted and accepted, but in dressmaking the reverse is the case, and every endeavour is made to keep the stitching out of sight unless it is used in a distinctly ornamental manner.

In all such work as hemming-up bindings and facings the lining only is taken up on the needle, the stitching never showing through the outside stuff, and this no doubt has

gradually led up to the feeling that stitching showing through is a mark of inferior work, and is to be avoided wherever it is possible. The fact that coloured silk or cotton must be used for stitching woollen stuffs, and the difficulty of matching them exactly, have no doubt a great deal to do with this; at all events, slip-stitching is now the dressmaker's stitch *par excellence*, and is used by her in all its variations, far better finishing being ensured by its use than in any other way. For instance, if the facing of two revers is machined to each on the wrong side, and then turned over, the edges are thick and clumsy, the stuff and facing hold apart, and it is very doubtful if both points will come out from the ordeal exactly the same size and shape; but if an interlining of muslin or other stiffening is cut exactly to the shape and size required, and the material is tacked smoothly and firmly down over it; if all the points, corners, and curves are carefully made and matched and the whole pressed, and then the facing also turned to shape and size, and tacked firmly down and pressed before it is joined to the rever by slip-stitching, the likelihood of the worker having to undo and do over again any portion of the work is reduced, and a far more finished effect results. With any piece of work on which both sides have to show equally—as the edges of a Medici collar or Zouave—pressing on either side after finishing would show a line of glaze round the edge, and here again the value of slip-stitching makes itself apparent.

What has been said on page 28 about the choice of needles and thread for the machine applies with the same force to the selection of needles and thread for hand-work. The needles should be smooth and well-finished—rather short where the sewing is to be done one stitch at a time, but long where several stitches at a time are taken up upon the needle—the cotton or silk smooth and firm, but not glazed; very fine silk is used for slip-stitching, and dull crape-cotton for sewing mourning crape. The length of thread may be broken from the reel, but should always be cut from the

work ; breaking weakens the fastening-off, and biting-off is nearly as bad, and adds the objection of marking the work with the moisture of breath and lips. All the stitching in dressmaking is expected to be neat, regular, and secure, but it is not done, as a rule, quite so finely as for white work ; fourteen to sixteen stitches to the inch being the range.

If the stitches are all small, close, and regular, the work would be called fine ; if large, but still well-spaced and regular, it would be considered coarse but neat. If the stitches are irregular in size and set in at different angles, some lying quite down and some quite upright ; or if stitches of various lengths follow each other without regularity or order, some taking one edge only of the two portions to be joined and some the other, and the tension on the thread is unequal, some parts being drawn quite tightly and the others left loose, and so on, it is decidedly bad work, even if the stitches themselves are all small. Cool, smooth hands, and the habit of touching and holding lightly, are as essential to good work as fine stitching, and a fair rate of speed is needed if the work is to be regular and fresh-looking.

The stitches shown in Figs. 7, 8, 9, 10, are only used in the preparation of the work, or to hold stuff and lining or



Tacking, No 1.

Fig. 7.

any two portions of the work together whilst it is in progress, and are always done in thin,

soft cotton of a contrasting colour, generally pink or white, none of which remains in the finished garment.

No. 1 is the "tacking-out" in the outline or fitting-line referred to in the details of bodice-making. The stitches are half an inch long, and of equal size on both sides of the work. Some workers prefer to steady the tacking-together

by taking a back-stitch at every four or six tacking-stitches; where this is done the back-stitches should be cut when the tackings are being removed, or they will be very difficult to draw out.

No. 2 is a variety of tacking-out stitch to be used by experienced workers, and for materials where it is advisable to guard against showing the marks of the needle, as cords, velvet, silk, etc. Only one end of the stitch touches the outline; the rest of the tacking is in



Fig. 8.

the turnings. The stitches are a quarter of an inch long, and the spaces between them vary from a-half to three-quarters of an inch.

No. 3 is the "long and short" stitch, which is found to hold crape and other springy fabrics better than stitches of equal length; the stitches are alternately an

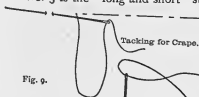
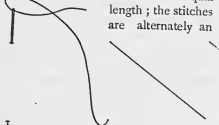


Fig. 9.

inch and a quarter of an inch long.

Basting is principally used for skirt work, and the size of the stitch would be varied according to the space to be



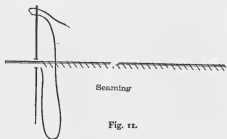
Basting

Fig. 10.

covered ; as a rule, the stitch is as large as the needle will take up. With large surfaces (as deep kiltings or pleats) a long straw or darning-needle may be advantageously used to cover the ground quickly.

Tacking is generally worked from right to left, but the worker would vary this according to circumstances, going backwards, forwards, up or down, as seems most advisable. Baisting may be used in any direction as required, but is generally worked backwards.

Machine-stitching, stitching, back-stitching, run-and-back-stitch, seaming, run-and-fell, are all employed for



joining lengths together or making seams. Back-stitching was used for the bodice and run - and - back-stitch for the skirt seams before machine - stitching took the place of

both (hence the old-fashioned dressmaker's rule of short needle for bodice and long for skirt). Seaming (Fig. 11) was occasionally employed for bodice seams, but only where selvages were joined, and was then worked very minutely ; it is now principally used for fixing the skirt to the belt. Run-and-fell is seldom used in dressmaking unless for foundation skirt seams. Machine-stitching is dealt with on page 29, and, properly worked, is a very close strong stitch, making firm, even seams, that can be pressed to a degree of flatness impossible to obtain with hand-stitched seams, unless in thick, soft materials.

Stitching (Fig. 12) is used to ornament finished edges, whilst at the same time giving them firmness. We are all familiar with the description, "Every stitch is like a pearl" ; and that is exactly how stitching should look. In white

work the rule is two threads backward from where the stitch last came out and four forward, the rule leaving two threadsuncovered between each stitch. In dress-making it is not possible to count the threads; the rule of sixteen stitches to the inch is therefore substituted for it.

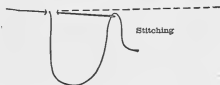


Fig. 12.

Back-stitching (Fig. 13) is very closely akin to stitching; the rule is, however, two threads backward and two forward, thus making the stitches follow each other without any spaces between. It is the firmest stitch used in dressmaking, and

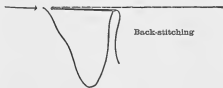


Fig. 13.

should be absolutely even and regular, both in size and in the tension given to the silk in drawing out the needle, if a per-

fect seam is to result. With back-stitching (and in a less degree with stitching) the chief defect to be guarded against is easing the upper material to the under one, which can easily be done even if the work is held very carefully and kept flat on the forefinger, if the stuff is thick and the needle put into the work at a slant, as it will then naturally take up more of the upper than of the under material. In stitching or back-stitching thick cloths, tailors guard against this by putting the needle in straight down from the face, drawing it through, and putting it in again straight through from the back, instead of making the stitch by passing the needle through both thicknesses of stuff at once in the ordinary manner; and though this is not specially necessary in dressmaking, it should be borne in mind if very thick cloth

is being worked upon. Back-stitching and stitching are both usually worked from right to left, but the former was occasionally worked backwards when joining skirt gores by hand (see page 130), the stitch being often given in old manuals on sewing as a variety of back-stitch.

Running (Fig. 14) is not a strong stitch, and would not be wisely used for any seams that have to bear strain, unless

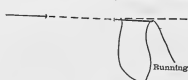


Fig. 14.

in conjunction with felling, or for French seam. It covers space very rapidly, however, and is therefore used for many

kinds of joining, and in inferior work for protecting edges in place of hemming. For running, the two edges to be joined are put together and the needle "run" or shaken along through both, taking up a number of stitches at a time which are all of equal length on both sides of the work. For gathering, the needle would not be taken out of the work at all, the stitches being passed back over the eye as they are made; but for running long skirt seams this would crinkle the material at the line of sewing more than is advisable, and it would roughen and weaken the thread to draw it through a long length; the needle is therefore drawn through, and the line of running smoothed on the thread at each needleful of stitches, the needle being always put back again with a back-stitch to strengthen the seam and prevent drawing up. Skirt seams were mostly joined in this way before the invention of the sewing-machine, and long needles were preferred by the workers as enabling them to cover the lengths more quickly. Care should be taken, in making a join by running, that the upper material is not eased against the under (see "Back-Stitching," page 101), and that the stitches really join the two lengths to be united. With too rapid workers the needle may occasionally miss the under

material, taking the top one only, and this no doubt gave rise to the saying that badly-made seams were joined with "hot needle and burning thread." Running is worked from right to left; but if pile fabrics are run by hand, the worker, after running the seam down, would return up the length, taking up all the spaces she had missed in going down, to close the pile and prevent the seam showing.

The needle "runs" through the work in making the seam, but the material can also be "run" or drawn up on the running-thread; this stitch is therefore the one used for making gathers.

Gathering, gauging, shirring, casing (Figs. 15, 16, 17) are used for drawing up the waists of skirts (often the back-breadths only) into a shorter given space, also for making flounces and many varieties of ornamental fulness on both bodices and skirts.

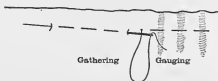


Fig. 15.

Gathering is, like running, worked from right to left, and the stitch is similar. The rule of gathering by thread is, take two, miss four; but this is very little used in dress-making unless a uniform grooved or fluted effect is desired, the ordinary running stitch of equal length on both sides being as general.

When straight (ungored) skirts were in vogue, and six or seven breadths of material had to be "stocked" or set into the waist-belt, the value of the correct gathering stitch was very apparent. The stitch, longer on the face than on the back, draws the material up into distinct ridges, making it much easier for the worker to dispose of it neatly, securely, and regularly by seaming the top edge of each groove to the bottom edge of the belt. For this the right side of the belt and the right side of the skirt are placed against each other,

and each gather secured with at least two firm seaming-stitches. The belt is held away from the worker and the skirt to her whilst the work is being done, and (as is usual in dressmaking) the sewing is done on the inside, and each stitch drawn up closely to show as little as possible on the outside of the finished work. (See page 146.)

The size of the gathering-stitch would vary with the quantity of material to be set into the arranged space. For bodice fronts it would be a quarter of an inch on the face and an eighth behind, or less ; for the waist of the front portion



Fig. 16.

tion of straight skirts, a very little larger. In the large gathers for the backs of undraped skirts the stitch would be the length of

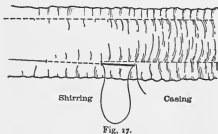
the needle on the face and a quarter of an inch behind (see Fig. 16). For the heads of large puffed or leg-of-mutton sleeves the gathering-stitch is often reversed, and made a quarter of an inch on the face and half an inch at the back. This brings the ridges outside, and after the sleeve-head has been drawn up on the gathering-thread to the size of the lining, each gather is pressed flat to make a tiny box-pleat. This method of dealing with the sleeve-gathers makes a less bulky arm-hole seam, and inclines the sleeves to stand out from the shoulders—an effect specially desired with sleeves of the kind.

Where several rows of gathering are to come one below the other, to give a regular grooved effect, the stitches, long and short, must be placed very exactly to take up and leave the same thread as in the row above them. Each gathering-thread should be fastened on very securely on the wrong side, and after all the gathering has been done each should be drawn up separately and steadily, and the piece of work

pulled gently from each end to assist the gathers to set, after which each gathering-thread is passed through to the back of the work and fastened off, and the gathers themselves are further strengthened and kept in place by a row of back-stitching or chain-stitching across the back of each row of gathering-stitches, the needle taking for this only the tiny ridge at the back of each groove or gather. This can be applied to both lined and unlined gathering, and when this style of fulness comes into vogue it is almost sure to bring smocking (which is really an ornamental outside strengthening of the smooth gathers) into fashion too.

Biassing is a very pretty way of strengthening unlined gathers from the outside. A thicker ornamental thread (of a contrasting colour, if desired) is used, and (starting at the right of the work) a tiny downward stitch is taken in each groove, the needle just taking up the gathering-thread. This stitch, thus worked, brings the biassing-thread diagonally across each ridge of the gathering, with a very ornamental effect.

A variety of gathering is made by extremely fine running, amounting to take a thread and miss a thread, in which the needle is lightly shaken along through the material without being drawn out at all, the stitches being passed over the eye as it is filled. The



expressive American term "shirring" is very descriptive of the manner in which the needle is shivered or slurred along through the material, and the gathers produced by this method are beautifully crisp and full, while the small stitches hardly show the silk or cotton with which

they are made. Where several rows of this extremely fine gathering follow one below the other, it is called casing. It is also called gauging, the term being applied to both kinds of gathering; but casing is always applied to lines of fine, small running-stitches with puffy fulness between, and where each line of gathering is pushed up a little above the place where it would come on the lining if the stuff remained its full length, so that it hangs over loosely, it makes the trimming called puffs, whether the stuff is gathered by the correct gathering-stitch or only cased or run. The fine shirring makes the prettiest puffs.* This fine running is also called "drawing."

Whipping is used for drawing up the edges of frills and lace to a required degree of fulness, and to make ornamental fulness without showing the thread. Whipping may be described as a variety of gathering, but the whipping-



Fig. 18.

stitch is made over the edge of the strip to be drawn up. In white work the rule is to gently roll the edge of

the frill between the left thumb and forefinger to close in the raw edges, and work from right to left, putting the needle in behind the work, just under the roll and in a slanting direction, and bringing it out at the face, taking one stitch at a time. For whipping lace the roll is omitted, and the worker uses a long needle and makes a number of stitches at once, twisting the work under the needle, and the needle

* In millinery, casing is worked on double material, and the spaces between each drawing are really casings—wire, whalebone, or steel being run into each space to give form to the head-dress. In dress-making the same effect (on single material) is used for ornament, on parts of the dress where a wire could not possibly be used.

over the edge of the strip, alternately. Whipping over a slight fold made on the back of the work gives fuller puffings than gathering or shirring, and shows the thread less. It is also occasionally used in the place of hemming for finishing the edges of soft silk frills, when it is worked in thick silk of a contrasting colour, and is not drawn up at all. The edge of the frill would be rolled and whipped down, after which the work would be reversed and the whipping again carried down the length, crossing all the spaces left in the first working. The drawn or gathered edge would be whipped in the same way before drawing up. Used thus it is distinctly ornamental.

Overcasting (sometimes called whipping) is used for neatening and protecting the edges of turnings inside the dress, also for making eyelet-holes.

Overcasting is a variety of seaming or whipping, but is worked from left to right and nearly always over raw edges.

The needle should be put in at a slight slant to make the stitch upright, and the stitch itself should be taken rather deeply to give a firm hold, especially with stuffs likely to fray. Twelve or more stitches to the inch is the rule for bodice seams. The cotton used should be the colour of the outside material, and the stitch should not be drawn up tightly or it will make a hard ridge at the edges of the turnings, which will show from the outside, and soon rub through the bodice. For eyelet-holes, on the contrary, the stitch should be fairly deep and very close, and drawn up tightly, the ridge being an advantage and protection to the edge of the hole (see "Fastenings," page 73). In inferior work the

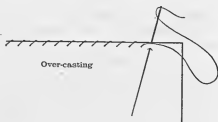


Fig. 19.

turnings are often whipped several stitches at a time; this, however, gives a frayed and untidy look to the edges, and should be strictly avoided.

The stitch shown in Fig. 20 is called embroidery button-hole-stitch, loop-stitch, scalloping-stitch, loop-overcasting,

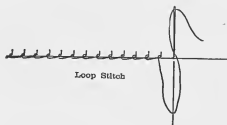


Fig. 20.

etc., and is used for ornamental eyelet-holes, loops, putting on hooks and eyes which are not to be afterwards covered with a ribbon; sometimes for edges

of turnings where very neat finish is required, as the top of the button-stand or wrap. Sometimes it is incorrectly used for button-hole stitch.

The stitch is worked from left to right, and is very similar to the correct button-hole stitch, with which it is often confused. With button-hole stitch, however the edge to be worked over is held upwards, and the purl is tightened by pulling the thread upwards and away from the worker, whilst with loop-stitch the reverse is the case, and button-holes worked in loop-stitch are always inclined to curl over and fall apart at the centre, and allow the button to slip back. The stitch is worked by bringing the thread from the last stitch down and holding it under the left thumb whilst the next stitch is taken. After the needle has passed through the work the thumb sets the loop free, and the stitch is tightened by drawing down over it. For the application of this stitch to eyelets and loops, see pages 73-4.



Fig. 21.

All hooks and eyes on skirt belts, or that are not covered with a ribbon-flap or facing, are overcast to the belt or dress

by this stitch, the overcasting being carried round the two little holes or rings, and up the shank of the hook to the turn; the eye is entirely covered.

Hemming (Fig. 22) is used as in white work, for holding down the edges of hems, facings, linings, and every variety

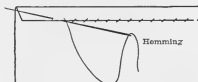


Fig. 22.

Hemming

of neat inside finishing, but must not show through to the face; the needle should take up only the edge to be hemmed down and the lining.

The manner of cutting and setting on a false or added hem is detailed on page 136, the inside facing of a skirt being a false hem; if the false hem is outside the skirt, it would be set on the finished skirt and slip-stitched at both edges (see page 138). French hem is used for the edges of cross-cut flounces and trimmings of the class generally. For French hem an inch or more of the material is folded over on the right side, and a row of machine-stitching made quite close to the fold. The inch of material is then turned up and the edge turned as if for an ordinary hem; it is, however, to be hemmed down on the ridge made by the machine-stitching instead of through the outer material in the usual way, and thus the stitches are prevented from showing through. French hem is used for silk and cotton, or fabrics which cannot be conveniently slip-hemmed.

For "roll" hem the material must also be on the cross, the hem about half an inch deep and turned up on the right side. It is then invisibly hemmed, all the stitches being made quite *under* the edge of the fold that they may not show through on either side. The appearance of the hem itself when finished should be soft and round. Roll hem can only be applied to materials which are alike on both sides.

Invisible hemming, or slip-hemming (Fig. 23), differs from ordinary hemming in both stitch and effect. The hem is turned and pressed, and the fine silk fastened on securely; then below the fold the needle takes up merely a hair—a hold so fine as to be hardly a thread of the stuff—in fact, it must not show or shine through to the right side. It is drawn gently through and then takes a good firm hold in the fold; another hair again a little further on, and repeat. This stitch is not a difficult one to execute once the “knack” of

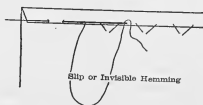


Fig. 23.

taking up the slight hold is acquired, and it can be very rapidly done; it is used for the edges of draperies, straight and curved, and for any parts of the dress where an edge of un-

lined material has to be made neat without showing a binding or a visible finishing, and—being worked from right to left, and therefore handier—it is also often used instead of herring-boning to roughly fasten down edges which are afterwards to be covered with a facing; in the latter case it is called rough-hemming, and both stitches take a firm hold in the material and lining, though not, of course, showing through to the right side. It is sometimes called slipping or slip-stitching.

The word slip-stitching is also used in two other senses—either for joining two edges together (as with revers, etc.), or to fasten a fold down over a flat surface from the outside, as, for instance, slip-stitching a back drapery down at each side over the front, or draperies round each side of the pocket-opening. For the latter the stitch used is much the same as for slip-hemming, but the edge of the fold should be lifted up a little and the stitches taken well under it, that they may not be at all

visible. The lower stitch, instead of taking up merely a hair, should take a good firm hold in the stuff, and this as well as the upper stitch should be made under the fold, that when the thread is drawn close it may lie entirely out of sight. When such slip-stitching has to be done down long lengths it is advisable to take a back-stitch at, say, every four stitches to keep the join smooth and relieve the thread of the strain.

Slip-stitching two edges together may be described as concealed running or concealed run-and-back stitching; the former is mostly used in millinery, the latter in dressmaking. The edges to be slip-stitched are turned carefully to shape, pressed, and tacked very exactly together. The needle is then passed in between the folds an inch forward of the place where the actual stitching is to start, and run backwards, taking the inside of each fold alternately till it reaches the starting-place, when it is drawn out between the folds, and the end of the silk drawn well down out of sight. The stitch is then worked forward from the starting-point again. Three or four fine running-stitches are made, taking up only the inside of each fold; the needle is then drawn out, always between the folds, and the stitching tightened up as closely as it is possible to do without wrinkling the edge. The needle is put in again a little behind the place where the last stitch came out, and the running and gentle tightening-up repeated till the end of the work is reached, when the needle is again reversed and the securing (preparatory to the fastening-off) made for an inch backwards. Fine needles and fine sewing-silk should be used for slip-stitching in any of its forms—either for slip-stitching or invisible hemming.

Herring-boning (Fig. 24) is worked from left to right, and used as a rough stitch to fasten down



Herring-boning

Fig. 24.

raw edges which are afterwards to be covered by a facing (as the outside of the collar to the buckram stiffening, etc.), and occasionally for fastening-in the bone-casings instead of hemming or cross-stitch. The stitch is worked from left to right, and the rule is six long and four apart. When used in dressmaking it is worked exactly as for flannel.

Small cross-stitch is used for sewing bone-casings to seams and marking the centre of the front of the skirt belt, sometimes also for sewing the belt of the bodice to the

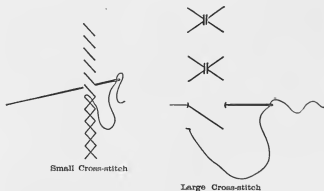


Fig 25.

three back seams. The large cross-stitch was at one time used for fastening bones into the casings, when it was worked from each corner into the centre, as the fans of stitches are worked. It is now used for fastening the belt to the three back seams of the bodice.

The small cross-stitch is worked downwards, beginning at the upper left-hand corner, and taking each stitch straight across, from right to left, returning up the length to complete the stitch as shown in Fig. 25. The large cross-stitches are worked singly, each one being fastened off separately behind the turnings. The stitch is made in the same way, but can be worked more conveniently if the bodice is held with the

neck to the worker's left hand. The left fingers can then be slipped under the turnings at both sides of the seam, and the stitch taken from the bottom to the top of the belt-edges up one turning, instead of across the seam.

Fans of stitches (Fig. 26) are ornamental as well as useful, and are worked in thick, bright silk. They are used for fastening the ends of the bones to the casings, etc. The silk is first firmly fastened on at the back of the casing and then brought through the hole in the bone to the face; the longest centre-stitch is first made, and then the sides of the fan worked either from the bottom



Fans of Stitches



Fig. 26.

upwards or the top downwards to meet it, the second side being carefully made to match the first, and all the stitches put in from the face of the doubled casing and brought back through the hole in the bone. The fastening-off should be at the back.

Fine-drawing is a method of joining two edges without taking up any turnings. The edges to be joined are placed close together on the left forefinger; the fine needle, threaded with fine silk, is brought through from the edge at the right of the join, and the stitch is taken across through the *centre* of the *thickness* of the cloth (below the surface) and returned in the same way, always in a slightly slanting direction, that the stitching may be gradually carried down the length of the join. The edges are in this way closed or drawn

together, and if the join is slightly damped and pressed from the back on a woollen cloth it will show very little—less, of course, in a rough material than in a fine, smooth one. Where the material is too thin to admit of this method of joining, the work may be held in the same way and the stitch made by passing the point of the needle under each edge alternately—somewhat like lacing.

A few words upon the darning which may be needed in dressmaking may be of use. Fine-drawing is generally considered a dressmaking mending-stitch, but it can only be well applied to thick, firm cloths, of the kind used for heavy winter jackets and mantles, and is scarcely as useful as might be expected, as it presupposes two firm edges such as an incidental cut might leave, and cannot be well applied to tears or worn places. Darning, to be really useful, amounts to a reproduction of the weave of the fabric, be it plain, twilled, or patterned, and should be done with threads of the material itself. Long warp threads, which can be drawn or frayed out from a strip cut the selvedge way of the piece, are generally the strongest and firmest, but if this is not available, either ordinary wool, cotton, or silk (according to the fabric to be darned) may be used, a strand being in all cases drawn out to leave it slightly soft and roughened.

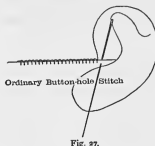


Fig. 27.

Button-hole stitch (Fig. 27) is used for making a firm ornamental edging to button-holes, sometimes also for eyelet-holes, instead of loop-stitch.

General rules for marking and cutting button-holes, with details of size, distance apart and from the edge, of running or back-stitching before cutting, or overcasting after, etc., and some details as to the different kinds in use, are

given on pages 37-40. It only remains here to deal with the stitch used in making them, and with stranding.

The ordinary stitch is worked from left to right, beginning at that end of the hole which is away from the edge of the bodice. The silk must be quite at the edge at starting; the needle is therefore first slipped up between material and lining, and the silk from the eye brought forward and passed under the point from left to right; the needle is drawn through and upwards to form the purl at the edge of the slit, the thread from the last stitch being always kept back and quite away from the needle. The needle is then put through from the back of the slit and the process repeated. The round end is not overcast as in white work; the same stitch is used throughout.

Another method of working button-hole stitch is also from left to right. In this the needle is put through and drawn out till a little loop of silk is left at the edge of the hole; through this the needle is passed from the back, and the purl drawn up as before.

Tailors' button-hole stitch is worked in a different way, the loop being made before the needle is set into the edge. Fig. 28 shows it worked from right to left, the silk from the last stitch cast upwards and towards the left in a circle, the upper part of which rests against the work; the lower is held under the left thumb till the needle has been set in the edge and drawn through, when it is released to allow the purl to be formed. It is the English custom to work button-hole-stitch from left to right, the French from right to left, but the stitch is exactly the same in each method if *all* the movements are

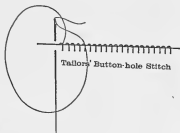


Fig. 28.

reversed: thus in the first method, if worked right to left, the silk from the eye would be passed under the point from right to left too, or always in the same direction as the work is proceeding. This practically gives us six methods of working true button-hole stitch. Whichever method is adopted, the stitch should be set in about one-eighth of an inch deep and drawn up perfectly straight to the top, and crowding should be carefully guarded against, as button-holes too closely worked are neither ornamental nor durable.

In addition to running or overcasting, very careful workers strand their button-holes—*i.e.*, carry a thread of silk

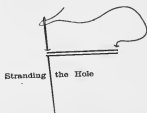


Fig. 29.

across each edge over which to work the stitch. In stranding, a tiny upward stitch is taken at one end of the hole, and a tiny downward one at the other, and the two stitches, being repeated, leave two strands of silk along each edge of the slit, below which the needle is to come at every stitch.

Opinions are divided as to the value of stranding, some workers giving it high praise and others contending that it draws the holes in and gives them an inclination to pucker. The latter is certainly the case if they are not cut to a thread and the stranding threads are drawn at all tightly. Back-stitching can, if preferred, be substituted for running and stranding, and gives the good results of both. Care should be taken in working button-holes to keep the edges as close together as possible. Occasionally very large button-holes are used for ornamental purposes—these are cut and bound with inch wide strips of silk on the cross. The strips are doubled, and the raw edges placed together and run on at the outside, then turned over and the fold hemmed down inside, the join coming to the square end of the button-hole.

CHAPTER VII.

THE GORED SKIRT.

Dimensions—Style—Goring—Measures for Skirt-cutting—Cutting Out—Darts, Pleats, and Gathers—Wedging—Joining the Gores—Seams—The Mantua-maker's Seam—The French or Double Seam—Joining Lace—Bottom Facing and Finishing—The Fall of the Skirt—Figures requiring Special Measures—Fixing the Facing—Trained Skirts—Pockets and Plackets—Separate, Flat, and Bag Pockets—Sewing in the Pocket—The Skirt Belt—Preparing the Top of the Skirt—Arrangement of the Back Breadth—Finishing the Front of the Waist—Cording and Binding the Waist—Double Belting—Fastening the Skirt to the Bodice—Foundation Skirt—Bottom Braids—Skirt Difficulties—Corpulent Figures.

THE narrowest skirt in which a woman can walk should be in bottom edge width a few inches more than twice its own length; therefore it will be found that the narrowest skirts are about two and a-quarter yards round. From two and a-half yards upwards, however, is needed to allow the average wearer to step freely, and lined skirts should be at least three yards in the bottom edge.

The style varies with fashion, but a well-fitting skirt should hang even all the way round the bottom edge, should fit close and clear at the hips, without however being strained round to define the figure too closely, and should take a slight outward slant as it comes down from hips to bottom edge. The seams should not slope either backward or forward, but should appear to the eye as a straight line from the waist downward. The part which is technically considered the front of the skirt, and which consists of the front breadth and either the two or the four side-gores, should not have the slightest inclination to drop in between the feet, and should be wide enough at the part where the hips are fullest (about seven

or eight inches below the waist) to fall well behind the figure, that the back, which is drawn in to a space of three or four inches at the waist, may not be made to spread unduly at the same hips level (seven to eight inches below the waist); and in particular the back portion of the skirt, which is intended to hang loose and full to prevent the figure being defined too closely, should not hang forward at the sides, or fall in to the heels behind. It is desirable that as little material as possible (consistent with the prevailing style) should be used, as heavy skirts are not comfortable in wear; and the general dislike to any extra fulness in the form of pleats or gathers round the hips and waist, excepting the few inches at the top of the back, is so strong that the cutter makes every effort to avoid it in planning out the cut of the skirt.

A number of straight breadths run together will not meet these requirements at all, as they would give a straight skirt hanging close at the bottom edge and requiring a large amount of pleating or gathering to bring the top into the waist size; it is therefore usual to gore the breadths, which is done in the following manner, single-width material being the basis of operations:—

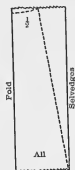


Fig. 30.—Goring for Front Breadth.

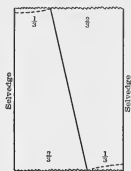


Fig. 31.—Goring for Side-gores.

GOED SKIRT (MEDIUM SINGLE-WIDTH MATERIAL).

A front breadth is gored by half the width being sloped off from the top down, but in such a manner as to take the quantity sloped off from both sides, leaving it wedge-like in shape when opened (see Fig. 32). A front breadth is, therefore, a width of material half as wide at the top as at the bottom, with both sides on the bias; it is always hollowed out at the top about half an inch, to allow it to sit close to the waist of the figure without wrinkling.



Fig. 32.



Fig. 33.

For side-gores the width is divided into three, one-third being marked up from the selvage at one end, and one-third down from the other selvage at the other end, and from one of these marks to the other the slanting line of cutting is made, the line running across the twill if there is one on the stuff. (It is better to chalk the line across and cut through it than to fold over by it and cut in the fold; with springy stuffs, such as alpaca, the latter plan almost invariably brings out one gore wider than the other.)

A side-gore is, therefore, a division of a width of material half as wide at top as at bottom, one side being selvage and one side on the bias of the material. Half an inch is hollowed from the top of the side gore (from the selvage side) to fit it to the curve of the waist. True goring

gives this proportion of two-thirds at the bottom to one-third at the top to all side-gores where wide single-width material is used. This goring (which, it must be remembered, is for side gores only) gives two gores, both the same size and shape, from one length of stuff; but if the material is patterned, one gore will be found to be both upside down and inside out, a point which needs consideration when the quantity of material to cut from is being calculated (see page 182), as one gore only can be cut from each width. The other part must be used for bodice or sleeves; therefore the quantity does not cut to so much advantage either for bodice or skirt.

The back should, strictly speaking, be a plain unshaped breadth, but this varies with fashion, and one-third of the width is often gored off, either in the centre of the back or at the sides, or gores and wedges are used.

A plain unshaped back breadth would be full at the waist and inclined to hang straight down. If it is gored off at the sides, the centre of the back would still be inclined to hang straight down, but the sides would be fuller at the bottom, and (if the fronts were wide enough) would keep it away from the feet behind very nicely. A back with a gored centre seam would hang full and away from the feet at the middle and straight at the sides, and so would give the best "hang" a skirt can have; but the gored seam is not liked, and, unless it is fashionable, is generally regarded as a serious objection. When this effect is desired, therefore, it is usual to add in the centre a wedge (or length gored off at each side, in the same way as the front), which gives a flowing back without a centre seam. This is the plan generally adopted for trained gored skirts, and is used for lined walking skirts when a full bottom edge is fashionable.

The shape of front breadth, side gores, and back breadth does not vary, and the proportion of their top and bottom widths respectively would always remain the same, but materials of varying widths must be gored (or divided)

differently. Double-width material, opened and gored for side gores, would give them much too large at both ends, and with far too much slope on the bias side to sit or look well; whilst twenty-inch silk treated in the same way would give small and narrow gores, and double-width material gored without opening would give gores equally narrow.

Rules for goring single-width material, twenty-four to twenty-seven inches wide, are as already given. Three or four lengths are required—one for front breadth, one or two for side gores, one or two for back breadth. If

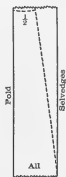


Fig. 34.

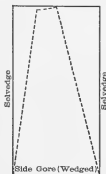


Fig. 35.

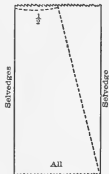


Fig. 36.

GORED SKIRT (NARROW SINGLE-WIDTH MATERIAL).

only three lengths are used, the skirt is narrow even for a foundation skirt, and it is better to use either larger gores or four gores instead of two, or to put another width in the back.

The following diagrams and rules give the standard methods of goring materials of different widths.

Silk or velvet, eighteen to twenty-two inches wide, gives convenient side gores if half the width of the material is left in the top, and the whole width in the bottom; such gores waste very little of the material if it is non-reversible. Five or six lengths are required—one for front, two for side gores, two or three for back. If it is reversible silk (up or down),

and the narrow gores are liked, two widths can be gored for four side gores in the same way as for twenty-four to twenty-seven-inch stuff. The wedged side-gore shown (Fig. 35) should only be used when wide skirts are in vogue.

Thirty-two inch print can be cut in the same way as twenty-four to twenty-seven inch material, or the side-gores may be the full width of the material at the bottom to half the width at the top to make a wider skirt, if only one breadth is used in the back. If for a very slight figure, the front

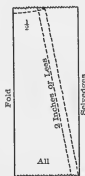


Fig. 37.

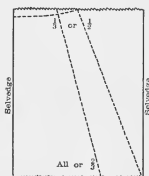


Fig. 38.

GORED SKIRT (WIDE SINGLE-WIDTH MATERIAL).

breadth, after being marked off, can be narrowed two inches at the same slope. This brings the seam nearer the front, and gives the skirt a hang more like that of twenty-four to twenty-seven inch material. Four or five lengths are required—one for front, one or two for side gores, one or two for back.

Double-width material (forty-two to forty-six inches), or fifty-two cloth or tweed, may be gored according to any of the following rules :—

No. 1 gives a straightforward skirt which sits and hangs well. There are two gores at each side, and the back

breadth *must* be shaped unless a third length is cut for it. Two lengths are required.

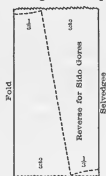


Fig. 39.

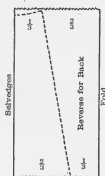


Fig. 40.

GORED SKIRT (DOUBLE-WIDTH MATERIAL NO. 1).

For narrow materials, or large figures, the wider proportions of No. 2 are used (the narrower lines are for non-reversible stuffs). Three lengths are required in each case.

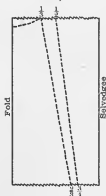


Fig. 41.

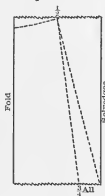


Fig. 42.

GORED SKIRT (DOUBLE-WIDTH MATERIAL NO. 2).

No. 3 gives a skirt with narrow front, wide side gores, and an unshaped back breadth, which of course may be

narrowed or gored off if less fulness in the top is preferred. Two lengths are required. Suitable for wide cloth or tweed.

In a gored skirt of single-width material with only one gore in each side and one back breadth, the bottom edge width is only barely sufficient for a foundation skirt or a housemaid's print gown. For ladies' walking skirts two gores should be used at each side instead of one, or two gored breadths in the back to make the fulness more ample. It is quite optional to use either the two side-gores or the fuller back breadth, or both when a wider or

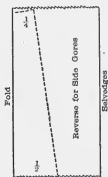


Fig. 43.

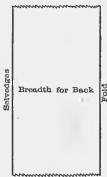


Fig. 44.

GORED SKIRT (DOUBLE-WIDTH MATERIAL NO. 3).

fuller skirt is desired, and preference should be given to the one or the other according to the fashion; but as a rule the increase is better placed in the back. Where this would not leave the "front" of the skirt wide enough to turn the hips well (as with narrow silk or velvet), the four side-gores should be used; but half of the top of each back gore can be gathered or pleated into the belt with the top of the back breadth, and set on the elastic with it to draw it well back, thus practically only leaving a gore and a half to each side of the front, and adding the width of half a gore at each side to the back itself.

The measures required for skirt-cutting are :—

The length of the front, from the bottom of the waist-belt to the top of the toe. The person being measured should not look down, as bending shortens the measure.

The total hips—taken *very easily* round the figure at about seven or eight inches below the waist. This measure must be loose enough to give room to bend, or the skirt will rise at the waist, and remain so each time the wearer sits down.

The waist—close enough to be comfortable, not tight.

The skirt should be cut as follows, if of plain and quite reversible material : A length—the length of the skirt with an allowance of one and a-half inches for turnings and shaping—should be cut off and folded in half down the length, selvedge to selvedge, and wrong side out. The fold, which will be the centre of the front breadth, should be to the cutter and the two selvedges away from her, and the end which is to be the waist to her left hand. From the selvedges backward on the waist end, half the width of the folded material should be marked, using either a pin, a piece of French chalk, or a piece of tailors' crayon. From the mark the line of goring should be slightly chalked down to the selvedges at the bottom edge, but not cut. Next, one or two breadths—also with an allowance of one and a-half inches for turnings, shaping, and extra length—should be cut. (One breadth would give one gore for each side, two breadths would give two gores for each side, and when it is intended to use the latter number the two breadths should be laid face to face, and pinned and gored together, to ensure correct cutting.) These should be marked off for side gores, but not cut; the pieces should then be laid together in the same way as the skirt will be made up—*i.e.* with the selvedge edge of one side gore to the sloped line of the front breadth—and the whole measured over.

The front breadth and side gores together, at about seven or eight inches below the waist, should measure out

from eight to ten inches less than the easy total hips measure (eight inches for average figures, ten inches for stout ones). This should be carefully checked across, and turnings on the seams allowed for; if not large enough, less should be gored from the sides of the front breadth, or, if too large, the excess marked off from the bias sides of the gores.

The front breadth and side-gores together should measure sixteen to twenty inches more across the bottom edge than across the hips; this gives eight to ten inches of slope to each side of the front of the skirt. The full measure is given, but if the skirt is folded as explained, the measures for hips and bottom edge must be halved.

It will be found that material twenty-seven inches wide gives these proportions very easily for average figures.

The top of front breadth and side-gores should be made the waist size by pleats lying backward, gathers, or darts taken out to reduce the skirt to the right size, either in the seams or in the centres of the gores, as fashion may indicate, the back breadths being either gathered, box-pleated, or laid in pleats folding towards the centre.

Gathers on pleats are seldom liked, therefore the waist should next be checked out, after either three or four inches (varying with fashion) has been deducted for the space the top of the back breadth will fill. From eight to twelve inches excess in size may be expected, and this must be disposed of according to the prevailing styles. If for gathers, it should be left to be afterwards drawn up on a strong thread (see page 147), ready for the band. Darts are really pleats, sewn out instead of being merely folded over. Darts should be only from an inch to an inch and a half large in the front breadth, and are better not larger than two inches even in the side gores, unless the difference in size between hips and waist is excessive, and even then it is better to put in more darts than to have very large ones. The darts should be from

four to five inches long, and slightly curved to fall easily over the fulness of the figure; the smaller one should be put in the centre of each half of the front breadth and the larger one in the centre of each side-gore, unless two smaller ones are preferred there, when they should be spaced out to come at equal distances from the seam and from each other. The darts may be marked with chalk or tacking thread, and the waist should still be left about two inches larger than is needed, that it may be eased to the belt in the finishing off. Pleats should be from an inch to an inch and a half wide altogether, and so arranged as to leave the front breadth to be eased into the belt, the pleats beginning behind the seams and lying close to each other, across the tops of the side gores.

Although darts are preferred to pleats or gathers, they are particularly unsightly in rich or patterned materials, and are generally taken out in the seams, if possible, instead of between them. This plan necessitates larger darts (as there are fewer seams to work upon unless the gores are small and numerous), and should be carefully thought out, and as much of the excess of waist size as possible fulled or eased into the band to moderate the size of the darts.

Where fashion ordains that skirts shall fit without darts, pleats, gathers, or similar contrivances of the kind for reducing the waist to size, the only other way of dealing with the gores is to turn them into wedges, which is done by sloping some of the excessive waist size away from the selvedge sides of the side-gores, leaving each a third as wide at the top as at the bottom. (Fig. 35.) The front breadth should also be wedged off to leave the top very little more than one-third of its bottom width. The lines should be chalked and the skirt measured over before cutting, and great care must be taken that this wedging does not decrease the hip's size, which must not by any means be permitted; less must be wedged off, and the seam curved up from hip to waist as a half-dart, if the hips measure will not permit a

slanting line from waist to hem. Wedging gives the skirt a much fuller "hang" at the front and sides than goring, and unless wide skirts are distinctly fashionable should be employed most cautiously.

The waist size being satisfactorily settled, the position for pocket and placket openings should be marked. The placket opening may be either at the left side or at the centre of the back, and should be at least eight inches long or longer for a broad-shouldered wearer, as if it does not allow the skirt to slip over the shoulders easily it will soon be torn down. The opening for the pocket should be six inches long, and its place in the skirt varies with fashion. It is best hidden, however, in the right-hand seam behind the hip, where the back breadth joins the side-gore, and the pocket can lie under the fulness; and the lower end of the opening should not be more than twelve inches below the waist if the wearer is to reach it comfortably. Nine or ten inches below the waist is the usual distance when short bodices are worn, and twelve with coat bodices; this places the top of the opening from three to six inches below the waist. It is needless to say that these openings should be left when the skirt seams are machined up.

Most workers prefer at this stage to join all seams down, leaving the top and bottom shaping till the skirt is ready for hem and belt, and as it saves time and labour, the order of working deserves recognition. The manner in which the seams are joined depends both on the prevailing fashions and on the material, but unless the skirts are voluminous the seams should be laid open. Such seams lie flatter, and are less difficult to manipulate when finishing, especially when setting-in the pocket and arranging the lower end of the placket.

The half-inch of hollowing from the top of the front breadth need not be actually cut away, but it should be tacked round that it may not be forgotten; and the half-inch from the selvedge-edge of each side gore should certainly be

cut out, or the waist of the skirt will be found too straight after the seams are made if the gores have been joined properly—*i.e.*, from the waist down. The writer advises making the waist shaping as soon as the "round" (hips, bottom edge, and waist) measures have been satisfactorily settled, after which the joining of the seams comes next in easy order of working.

In making up, the gores should be joined from the waist downwards, a straight to a bias edge being the rule. If the back breadths are gored off where they join the sides, there would be one seam at each side where two bias edges come together; this is a slight departure from the rules.

The actual joining of the gores is a matter demanding great care, as one edge is on the bias, and if it is stretched whilst being set against the straight edge of the other gore, the smoothness of the seam and the hang of the skirt are both affected. The great point is to prevent the bias side from being stretched either in the joining or the subsequent machining, and this is best accomplished by keeping the gores on the table whilst joining them, lifting the edges together lightly, and only just sufficiently from the table to put in the pins, and pinning without yielding to the temptation to smooth the bias edge, which is how half the stretching gets done. Small baisting is better than tacking for preparing the seams; it holds the edges together better. As to the actual sewing, authorities are divided. Some say seams should always be sewn with the bias edge up, and consequently that half of the skirt must be sewn from the top down and half from the bottom up; others say all should be joined from the top down, regardless of bias or straight edges, the direction, or "pull," of the stitch being of more importance than the side of the work kept up.

It appears to the writer that if once the seams are baisted or tacked carefully down, it is quite possible to machine all from the top downward with the bias side upward, and equally so to back-stitch them where hand-sewing is necessary.

It is quite easy to back-stitch the one half of the skirt in the usual way, working from right to left, and then on the second half to reverse the stitch and work from left to right; the stitch looks like the back of the ordinary back-stitch when completed, and the pull of the stitch on the seam is exactly the same as if it has been worked from right to left. In machined seams it certainly is an advantage to have the bias edge up, that it may not be stretched as it goes under the needle—this can be arranged on the second half by rolling the skirt up smoothly towards the seam and letting it go under the arm of the machine whilst stitching.

Run and back-stitch is not so easy to manage, but it can be done by having the seam to the worker and the skirt away from her; it is a little awkward to hold, but the difficulty is not insurmountable.

The presser-foot should not hold skirt seams down too closely, or it will cause the yielding bias to stretch as it passes under, and the tension of the thread should be easy enough not to draw up the length of the seam. With thin materials this is particularly to be borne in mind.

Seams.—Various methods of joining the seams of skirts must be adopted, according to the exigencies of fashion and the material employed, but it is generally considered that a flat seam—*i.e.*, one that will allow the turnings to be laid equally under each side and that can be pressed open—is the best.

Of this there is no question, but against it the worker has to set the value of the time and labour employed in neatening or hiding the turnings (a serious item in a gored skirt with many seams), and also the appearance of the inside of the finished skirt, which certainly pleases best when the seams are quite flat and no turnings are visible. This has led to the invention of innumerable methods of making the seams, all having the same end in view, namely to make and neaten the seam in such a way that the turnings do not show, with as little labour as possible.

In the highest class of work on lined skirts, each gore is mounted on muslin (stiff or soft, as fashion decrees, and slightly wider than the outside material), and the seams are made exactly the same as those of a bodice; the seams of the lining are joined separately, and both sets of seams separately pressed; both are then tacked together at the waist and bottom edge with the turnings between the two, that inside and outside of the skirt may be equally neat. Here and there the lining seams are caught with tiny catch stitches to the seams of the outer material, to hold all closely together. Sometimes the lining is hemmed in by hand, one edge only being folded down and hemmed through the other to the turnings of the outer seams. The waist and bottom edge are then finished as usual. Cloth and other firm materials can be made up in this way without the muslin interlining, but with softer materials it is absolutely necessary if a smooth, firm seam is to result. This plan offers some little difficulty in setting-in the pocket (see page 142), but the objection may be dealt with by joining all the parts for the "front" of the skirt and then cutting out one lining to it, the seams of the lining having been previously joined without regard to where they will fall. The back may be lined in the same way, and the two side seams joined through like those of a bodice, all the others being between stuff and lining. This is very convenient for setting-in the pocket and finishing the placket; but, of course, the two seams show on the inside, and need careful neatening.

The easiest way of making up close-hanging lined skirts of ordinary woollen dress materials is as above, or else by making up material and lining together exactly as a bodice is made and neatening the seams in the same way (overcasting or binding), afterwards catching the turnings at intervals to the lining of the skirt to keep the seams flat; and that is the method usual at present, when woollen circular skirts have only a few seams; but the inside does not look well when the skirt is turned. Some workers prefer to cut down

the turnings in such a way as to leave one turning of the lining much wider than the rest, and to fell this neatly down over the other edges to the lining of the skirt. This looks better inside, but on the outside it will now appear that one side of the seam is depressed and the other raised—always the case when the turnings are laid to one side, or not laid open.

Again, the turnings are trimmed down and laid open, and a ribbon is hemmed along to each side of the lining, covering them entirely; this is flat, but patchy-looking, and very far from sightly inside.

For wide gored skirts the old-fashioned plan of lining has its advantages of economy of time and labour. The front breadth is first baisted to the lining, and the seam is then arranged as follows. The side gore lining is placed face up on the table; on this the lined front breadth is placed face up. Upon this again the side gore (material) is placed face down. The four pieces thus placed are ready to be sewn together. The seams should be machined and pressed and the turnings trimmed down to be of unequal width, each a little narrower than the other, to save a ridge showing through, and when the lining and material of the side gore are turned over to each other it will be found that the seam has been made and neatened by the one length of sewing, as the turnings are quite hidden between lining and material. The material and lining of the side gore should be baisted together and the process repeated with the next gore, it being always remembered that the seams must be pressed before turning over, as it is almost impossible to press them satisfactorily afterwards, and there is always the risk of pressing the mark of a ridge through from the edges of the turnings, which, as in the preceding method, are laid to one side, the four edges being always between the last pieces joined on.

Every seam can be joined in the same manner, working from each side of the front breadth backwards, the whole

of the skirt being between the lining and material of the back when the last seam is made. If the back breadth is wide, the whole skirt can be turned right side out quite easily after all seams have been made: but if the backs are narrow and much gored, or the material is one that will crush easily, it is wiser to join one lining and two materials only in the last seam of all, and to neaten by felling the other lining over it.

This method does not make an equally flat seam, and so does not belong to the best class of work, but it is quick, and keeps the material fresh, and so is worthy of consideration. It is, in conjunction with the preceding method of joining and finishing, of the greatest value for securing the "panel" effect desired in skirts made of many gores of alternating colour, one depressed and the other raised, and aiming to give the effect of an upper skirt slashed to show an underskirt of contrasting colour beneath.

For unlined skirts there is the mantua maker's hem, or seam which makes the seam and neatens it in one length of stitching, but which is too clumsy for thick stuffs or closely hanging skirts, and cannot be well pressed out. Mantua maker's hem is extremely clumsy if made by machine, and has, therefore, dropped almost entirely out of use. To make it, the two lengths to be joined are put together face to face, with one raw edge (the bias one) a quarter of an inch below the other. (If the straight edge is a selvedge, so much the better, as one turn can be saved, and it will make the join less bulky.) The straight edge is turned as for a hem, and laid down over the bias. It is then closely hemmed along, each stitch taking up the fold of the hem and the two thicknesses of the stuff below it, thus making and neatening the seam at the one time. The French or double seam has a little advantage over the mantua maker's seam in point of bulk, but does not press well. The French or double seam (which French workers call English seam) is made by placing edge to edge, the two

lengths to be joined together, the right sides of both pieces being outside, and machining or running very closely at a quarter of an inch down from the edge, or less if the material is a firm one and not likely to fray out. The line of stitching is pressed, and little irregularities are pared away; the lengths are then turned over, and a second line of stitching made as close to the edge as possible, on the wrong side. Care should be taken that the second row of stitching is sufficiently far in from the turn to quite enclose the raw edges. The finished seam is not unlike one made in the ordinary way, with the turnings neatened by turning in edge to edge, and sewing down, except that only one line of sewing is visible inside. French seam is used for unlined diaphanous fabrics. Overcast or bound seams can be pressed flat, but the work of overcasting, or binding, each side of each seam must be considered, especially if there are many seams to the skirt, and finishing the turnings upon themselves with a machined hem (as explained for washing dresses, page 161) calls for the same consideration. Machine and fell is only suitable for foundation skirts, as a second line of sewing showing through is not permitted in the seams of skirts proper. Drapery seams of every kind *must* be flat and pressed open—the least stiffness or obstinacy in the seams will spoil the natural fall of the folds; here neatness must give way to the outside effect, and leave the turnings raw-edged, or they must be only very slightly overcast.

Lace is joined by one edge being laid upon the other, matching the pattern as nearly as possible, cutting the upper part round to the design, and closely darning or overcasting it down, raw edged, to it; the turnings of the under part are then treated in the same way, all the sewing being done from the face, and the extremely fine stitches used being set in to follow the design rather than by evenly following each other to show the seam by drawing the eye to it. This is very dainty work, more like lace-

making than dressmaking, and is not so necessary where the seam falls amongst folds. It can then be run or stitched, opened flat, and finely overcast back to the outer lace.

All selvages must be notched across at intervals for seams of any class, if they are to look smooth and flat.

The seams having been joined, pressed, and neaten (if the latter is needed), the skirt is ready for the bottom facing and finishing. Lined skirts may have an outside (false) hem of trimming (velvet, silk, etc.) as well as an inside facing, in which case they may be finished up in the way explained for foundation skirts, the velvet being first mounted on muslin to make it sit smoothly to the skirt; or, preferably, the latter may be entirely finished, and the false hem or band of velvet mounted on muslin and prepared as described for inside hems stiffened with horsehair, and finally slip-stitched to the skirt at both edges.

It has been stated that the bottom edge of a well-cut skirt should flow outward (sufficiently so, in fact, to quite shadow the feet when the wearer is in a standing position—and a skirt which does not fulfil this condition is never quite satisfactory). To maintain this effect, frills, flounces, ruches, linings of crinoline and horsehair, *balayeuses* (or inside frills), wadded hems and rolls, etc., are all used in turn, and anything in the choice of lining or in the finishing of the bottom edge of a skirt that allows it to fall soft, or that draws it in in the slightest degree, is at once rejected as not meeting the requirements of the work. Methods of finishing which leave the edges thin are, therefore, less favoured than those which leave them firm and full, and all hems, stiffening, etc., are cut amply wide, and bindings, etc., well eased on, to guard against the danger of drawing in.

Straight skirts are cut longer than required, and the hem is simply turned up, but with gored skirts this plan would necessitate laying the top edge of the hem in a series of little pleats, which are bulky and unsightly, and soon

rub thin in wear—a separate added (or false) hem is always used in good work.

This should be about ten inches deep, rather wider than the skirt edge, and exactly shaped to it, as lengths on the straight would need fitting down by the pleats at the top edge also. Lengths on the cross are sometimes used, but though they do not need fitting down with the series of little pleats at the top as those on the straight do, they do not sit so smoothly as a shaped hem, though it must be admitted that the latter cuts into a large quantity of material, if it is seamless.

If it is an outside hem, it must be the same way of the stuff as the skirt itself, and the joins as few as the width will permit, and always so arranged that they fall at the side seams, and never at the middle of either front or back. With an inside hem or facing, a little more freedom may be permitted, and it may be cut either way of the stuff, or from the strips left from the front and back goring, but the facing for both sides of the skirt should be alike—not one on the straight and one on the cross, or some difficulty of pulling or lifting will certainly occur; the joins should also be at the side seams, and the shaping of the skirt edge carefully followed.

The joins in the facing should be made and pressed open, the skirt then folded down the centre and pinned together at the waist and down each side seam, and the lengths carefully checked from the already shaped waist down the centre of the front, down each side seam, and down the centre of the back. For gored skirts the side seam is usually made half an inch longer than the front, and the centre of the back one inch longer than the front, but this may vary with fashion, and must be regulated accordingly. Where the figure is one requiring variation from the usual rules, the special measures taken for the purpose should be used. The lengths should be marked with pins or chalk, and a slightly-curved line carried from one to the

other. The lengths should also be checked down from the waist at two or three other parts of the skirt, as well as from the points already indicated, to ensure correctness in the run of the bottom edge, and great care should be taken that the line does not peak either up or down at the centre of front and of back, but takes a straight run for a few inches in from the fold. (This is a fault to be specially guarded against in skirt cutting, and the fold should be opened and laid flat after cutting, and any slight peaking up or down straightened off.) The bottom edge is pared away to within half an inch of the curve, and the skirt is then ready for the facing. Two methods of fixing this are here given, either of which may be used for gored skirts at the option of the worker.

I.—The skirt is laid face upwards on the table, and upon it the facing, face downwards. If a stiffening of checked or stiff muslin is used, it would be half an inch narrower than the facing, and laid above it. The three thicknesses are machined through just the half-inch above the bottom of the skirt edge allowed for in the checking down of the lengths, the tension of the stitch being made loose enough not to draw in the line of sewing. The stitching is pressed, and the stiffening and facing turned up to the inside of the dress; the extra half-inch of facing is turned down over the stiffening and hemmed down to the lining only of the skirt. The bottom braid, or a binding of bias velveteen, is then laid to the outside of the skirt edge and run along, and finally turned over and hemmed along the inside to finish. The custom of finishing bottom edges in this way, and putting a piped cording of silk between, dates from the times when skirts were plain, full, and long, and carried in the hand, and when the bottom edge was therefore an object of special attention as to careful finish. The habit of folding the braid and sewing it in between skirt and facing is no doubt a survival of the methods then found most useful; but with ordinary walking dresses the braid

wears out before the material, and should be put on in such a way that it may easily be removed and renewed.

II.—By this method the facing is prepared and joined, and the stiffening (cut the required depth *without* turnings) also prepared and joined. The bottom edge of the skirt should be turned up the half-inch allowed in checking the length, and tacked round or herring-boned down to the lining only; the top and bottom edges of the facing turned over the stiffening and tacked through it, and then the facing fixed into place a little above the skirt bottom and hemmed on at both edges, the velvet binding or braid being folded and sewn between. This method is quite necessary for circular skirts, which are apt to drop at the sides and back and to require occasional shortening off (for alterations of this kind handwork is much easier to open and replace than machine stitching), and is for all skirts a very complete finish. It will be noticed that the stiffening is enclosed in the facing, and not in the skirt itself. With horsehair, this is very necessary, as, if put in quite to the bottom edge of the skirt itself, it soon cuts through, whilst in the facing it can be raised a little above it. The upper edge of the stiffening too, always an eyesore in a plain skirt, however carefully arranged, is a trifle less conspicuous if it is enclosed in the hem. The "push" of the top is then inward, rather than outward, and thus shows less than it does when tacked into the skirt itself. With stiffenings of horsehair this is a serious consideration, as it is very stiff, even when it is cut on the cross.

Indeed, the use of stiffening in the skirt edge is a rather clumsy resource at any time, the wide effect being easier to secure if the upper petticoat below it is stiffened either with starched flounces, or with pleats and frills of horsehair. Upper skirts of moreen trimmed with a couple of narrow flounces round the bottom edge set out the dress skirt well enough to give a moderately full effect, which will generally satisfy average wearers, especially if a narrow strip of

horsehair is doubled and enclosed in the hem of each flounce, both being cut on the cross.

Washing skirts should only have a deep hem at the bottom, not be lined through, and the bottom edges of lined velvet or velveteen skirts should not be faced up with their own material, but with silk or some other smooth finishing. The same applies to skirts of lace, net, gauze, and other thin soft fabrics that would easily rub through or tear.

Trained skirts should be full enough to flow easily, but not so much so as to be heavy, and the back breadth should be shaped as explained (page 120), which takes three widths of silk; the front and side gores may be cut wider in the bottom edge, as the train may draw the skirt in at the feet a little, if heavy. The length of the front and also of the back from the waist being ascertained, the widths of material should be cut accordingly, those for the side being cut half-way between the lengths of the others. The widths are joined from the waist down, and the hips, waist, and bottom edge widths carefully checked, as already directed. The surplus length of each side gore is then curved off from the length of the front breadth to the side seam, where the surplus length of the back breadth is also curved off as far as the centre one of the three widths, the bottom of which should only be slightly rounded, not sloped off in a sharp peak. A deep shaped facing of the outside material is required, which should reach to the level of six inches above the ground all the way round, and thus is deepest in the train; and a thick cord is used at the edge instead of a bottom braid. This should be held easy for the edge, and overcast to it with silk which matches in colour; it will then roll over and conceal the sewing on.

It is better to finish the bottom edge before setting-in the pocket, as the slight bulk of the latter increases the difficulty of measuring out both sides of the skirt exactly the same length; but when this has been done the placket

should be finished to be ready for the belt, and the pocket set in and finished off.

Pockets and *plackets* are admitted into dressmaking as necessary evils, and some very particular wearers endeavour to dispense with either or both, resorting to various expedients to accomplish this end, with varying success. One of these expedients is to have the pocket in the top petticoat or underskirt, or a quite separate pocket tied on at the waist, and to lift the dress skirt bodily each time it is necessary to get to purse or handkerchief; but this plan is not generally liked, and it is considered better to have an opening in the skirt just at that part which will allow the hand to be most readily introduced into the under-pocket. This plan is troublesome where there are many folds, amongst which the pocket opening gets lost, and can only be found after a good deal of seeking; and when such skirts are popular, outside pockets, prettily made and ornamented, and fastened to the waist by ribbons, are almost sure to be used. (Where the pocket is meant to fall inside the skirt it should be as flat as possible, and the setting is so arranged as to leave the opening an opening, and not a wide hole, especially if the upper part of the skirt is plain and the opening well forward on the figure.)

The pockets generally in use in dressmaking are either flat or bag; the shapes may vary a little, but the pockets will be found to be much the same in character. The flat pocket belongs to the best class of work. It is usually about fourteen inches long and seven wide when it is finished, and the slit, about six inches long, should begin about two inches down from the top. It should be made of bodice lining, black-backed if the skirt is dark and has a dark lining, and the pocket is to come quite inside the skirt; but a piece of the dark skirt lining or foundation material should not be used, if only out of consideration for the wearer's pocket-handkerchief. To

make the pocket, the place for the slit should first be marked; a piece of the dress material about eight inches long and four or more inches wide should be laid over it on the inside of the pocket, and the four edges neatly turned under, machined, and pressed. The back of the pocket also needs a similar piece of material to face it on the inside, that the pocket opening may show the material, and therefore be less likely to attract the eye. When these pieces have been sewn on, the slit should be cut to allow the pocket to be afterwards turned out, the edges being closed by French seam. The pieces should be laid together with the faced parts outside for the first line of stitching, that the seam may come outside when the second line has been made; and a length of firm ribbon or Paris binding should be put between the two pieces of lining at the top of the pocket, and sewn in with them. When the pocket is turned, the ribbon will be securely and neatly sewn to the top and will be ready for sewing to the waist-band, to take the weight of the pocket from the seam.

The setting-in depends on the finish of the skirt seams, but with a flat seam the pocket (turned inside out) should be laid against the face of the skirt, with the bottom of the slit against the bottom of the opening, and the inside of the skirt towards the worker. Each side should be firmly back-stitched up, the sewing being exactly in a line with the fold of the seam at the top and bottom ends of the opening, though midway it may go back a quarter of an inch into the skirt turnings to give it a tendency to close; and the worker must be careful to take as little out of the pocket itself in the way of turnings as secure sewing will allow, for the amount of turnings taken up from the pocket at the lower end of the slit affects the hang of the seam largely. If they are at all deep, the opening is inclined to remain open, and this in turn lifts the skirt seam slightly, and makes it hang short. The quantity taken up should taper away to nothing at the bottom of the slit. This is

particularly necessary when the opening for the pocket has to be cut in the skirt instead of being left in the seam, as with the circular seamless umbrella skirts of 1891 and 1892. The quantity of turnings taken out of both skirt and pocket should be the very slightest, the top and bottom ends being only overcast very closely and thickly, and no seam taken up at all. The setting-in of pockets to these skirts was an exceedingly careful operation, and fashionable dressmakers simplified it by putting the pocket in at the placket opening, where it could be effectually hidden, and could be reached without much difficulty by the wearer's left hand. (When this plan has to be adopted the bag pocket answers best, but it is only one degree better than having no pocket at all.)

With foundation skirts the same care with top and bottom ends is necessary; in addition, the line of sewing on each side must run exactly in the fold of the skirt seam also, or the finishing of the outer draperies against it will be much complicated and very unsatisfactory in effect.

After the pocket is securely sewn in, the seams should be pressed and then closely overcast, the ribbon from the top fixed to the waistband, and the upper corners of the pocket attached to the lining of the skirt by a fan of five or seven stitches, to keep it flat and in position. The pocket should be fixed to be easy in the width for the skirt, or it will keep the sides of the opening apart. This method of setting in is quite easy if the skirt seams are made through, but is less so if the turnings are between, as those of the lining have then to be snipped at top and bottom of the opening to bring them to the inside, which weakens them. To obviate this, that part of the skirt which is to carry the pocket is sometimes strengthened; an extra piece of lining being made in with the outer stuff, and the pocket set into the outside only, the lining seams being closed all the way up and the pocket falling between lining and skirt. With thin stuffs this might show the edges of the pocket through

too plainly, and so it is allowed to go quite inside the lining, the fold of which is then hemmed down on each side of the setting-in to quite cover the raw-edged turnings.

Flat pockets lie equally under both sides of the seam or opening, and certainly fill up the skirt less when used towards the front or sides of the figure ; but there are styles in skirts where bag pockets are more suitable, as with seams very far back in the skirt, under folds to which the corners of a flat pocket cannot be attached, or where it is preferred that the pocket should be under one side of the seam only, as with draped foundation skirts. The bag pocket can be very conveniently used for gored skirts lined in the old way, (with all the turnings laid to one side of each seam, in the manner detailed on page 132), for it lies very nicely between lining and outside material. The pocket must in this case be put in when that seam is in course of making, instead of after all the seams are finished.

The mouth of the bag pocket is faced with a piece of material to the level of two inches below the lower end of the mouth ; the pocket is then made by French seam, or simply machined round and the turnings overcast or bound. In cutting these pockets the seam is often carried all round, or if there is a fold it is put at the longer side, throwing the seam to the lower end of the mouth. When it is remembered that, including the facing, this seam is four-fold in thickness just where the setting-in needs the finest finishing, it will be seen how great an objection the seam is, and why flat pockets are considered superior. The seam should be left open for half an inch at the top, and sewn to the turnings of the skirt-seam at each side, but no attempt should be made to take a hold upon it across the lower end of the mouth ; put in in this way it will be flatter, and the risk of lifting the seam will be avoided. The setting-in would then be much the same as that of the flat pocket as far as the lower end and sides are concerned ; but the upper part, above the opening, should either be overcast together, or,

preferably, the sewing should be continued up each side to the turnings of the closed skirt seam until the top is reached, where it should be attached to the waist-band by a ribbon and finished off in every respect as already explained. (If the opening for the pocket must be cut in the dress, instead of being left in a seam, a flat pocket should be used.)

Wherever and whenever it is possible to have it so, the pocket and placket should be made in a seam, as it allows better turnings and gives a better hold, and is more economical where the possibility of having to alter the dress and utilise the parts in some other way has to be taken into consideration. This end is best attained by making the placket opening at the left-hand side, where the back breadth joins the side gore; but the material has the disadvantage of being on the bias at this part, and as the opening falls on the curve of the hips, and it is desirable to make the flap or wrap from material on the cross too, that it may adapt itself to the curve and keep the placket close, there is the risk of the opening stretching and allowing the seam to drop long. This risk, however, is less serious in fact than in theory, and the plan is for many styles preferable to an opening at the back; indeed, the placket has to change its position altogether at times and come well forward, sometimes as far as the first seam. It is usual, however, in better-class work to put the placket at the centre of the back where the material is on the straight; but, wherever it may be placed, the method of finishing varies very little. The opening is made amply long to allow the dress to slip on easily, eight to ten inches being usual.

The left side is finished by a strip of the material about four inches wide being run on the face, pressed, turned over and hemmed just on the line of sewing, thus leaving a flap or false hem of double material one and a-half inch wide to fall under the other side and prevent gaping. The bottom of the flap is either bound or turned in edge to edge and overcast; the end is then hemmed along to the lining under

the right side, to still further assist the inclination to close. The top of the flap is finished in the same way as the other part of the waist.

The right-hand side is finished by being faced in for two or three inches with a strip of the material, which is machined on, turned over in the line of sewing, and hemmed back to the lining; or the skirt edge is turned in and the facing hemmed against it at both edges.

The placket is generally secured by a hook sewn midway under the right-hand side and a silk loop to correspond on the left; a lengthways button-hole made in the seam where the flap is sewn on, with a small rough button sewn to the facing under the right-hand side, has, however, much to recommend it, making a firmer and less visible closing.

The skirt belt is prepared by turning a hem at one end an inch and a-half deep (or the size of the placket facing), hemming it and sewing two strong skirt eyes outside, the sewing to be just on the hem, that the doubled part of the belting may extend beyond the eyes. Another eye is then sewn on the doubled part quite close to the edge. From the eyes the size of the waist is measured, and a narrow hem, just wide enough to carry two hooks, turned over and hemmed down, and the hooks sewn on inside. A third hook should be sewn on to correspond to the single eye on the placket part of the belt. Hooks and eyes should be overcast on as explained in the chapter on "Stitches" (page 108). The belt, when fastened, should be exactly the size of the wearer's waist.

The top of the skirt should be prepared according to the method of finishing which it is intended to use. In the case of lined skirts, stuff and lining should be tacked together, even if they are only to be bound over, and the gathers should be drawn up ready for setting on, or the pleats made and firmly overcast together quite ready for the band. The deep hem at the left-hand or eye-end,

which is to serve for belting the placket facing, should be pinned into place, the ends of the eyes just level with the sewing on of the placket. The belt and the waist of the skirt are then divided. If the placket is in the centre of the back, and the whole back breadth is to be set into a space of three or four inches, half that quantity should be taken from each end of the belt, measuring from the ends of the hooks and eyes. The portions for the back are pinned to each side-seam, and the rest of the band folded, the centre fold being placed at the middle of the front breadth. If the placket is at the side, the portion of belt for the back is measured off and pinned to the side-seam (the placket portion being first pinned into place as before), and the remainder of the belt divided and the centre pinned to the middle of the front, as already explained.

Dressmakers mark the centre of the belt front with a line of tiny cross-stitching in white; this is handy both to worker and wearer, and should always be done. The top of the back breadth should be banded first; if pleated, it should be large enough to be well eased to the band, and the sewing on of the latter (back and front), whether it is seamed, run, or hemmed, should be started from the centre, working round to each side seam, the dress being held towards the worker and the band away from her.

The top of the front breadth, if it is cut to fit without pleats or gathers, should be slightly eased into the belt or band; and the same holds good of the side gores, especially that half of each which will fall upon the curve of the hips and behind them. The back breadth, unless pleated, should be set in large gathers (see page 147), as they fall full and keep the breadth well back where small gathers would drop flat, and allow it to hang forward at the sides.

With some fashions the disposal of the top of the back breadth is a matter of serious consideration. If the back is to be draped or bunched up in any way below the waist, the smaller gathers should be used, and the whole top set into a

space of not less than four inches. With straight (undraped) skirts, however, the back should be set into a smaller space at the waist, three inches being considered ample; and when the breadths are wide and unshaped, it is sometimes a question how to pack all the fulness into the space. The large gathers are then of great value, as they lie close and use up material very rapidly.

The top of the back breadth should be turned in edge to edge, and either run along or overcast closely; it should then be gathered from one side-seam to the other on strong thread or (preferably) strong silk the colour of the dress—a length of button-hole twist serves admirably. This should be well fastened on at the beginning, and the stitch may be from one inch long to the length of an ordinary needle on the outside, and a quarter of an inch or less on the inside. When all the top is gathered, it should be very closely drawn up on the silk or thread, the latter being wound over and under a pin put in at the end to hold it firmly, the gathers regulated, and the inside edges fastened together by a row of firm chain-stitching or back-stitching. The back is then ready to be fastened to the belt by seaming to it from the inside, each gather being secured by at least two or three firm stitches. Strong thread or twist should be used, and care taken that each stitch takes up both material and lining as well as belt, and that all the gathers are set into the space of the belt reserved for the back.

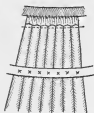


Fig. 45.—Large Gathers Seamed to Band and Set on Broad Elastic. Inside of Back Breadth.

If pleated, the pleats should be laid, pinned, and basted down, and the upper edges firmly and strongly overcast together, the utmost care being taken to include every part of every pleat in the sewing. This is no easy matter, as the stitches naturally draw the inside and outside top edges together, missing the pleats between, so that the

skirt hangs long at that particular part. The top may be left raw-edged if the waist is to be bound or finished in any way that will cover it down ; but if it is to be seamed to the belt, or corded down, it is better to turn the top in edge to edge, as explained above for gathers, before pleating.

The problem of finishing the front of the waist, to have it perfectly neat inside and out, with the minimum of bulk, is one of serious importance to the worker, especially as changes of fashion continually necessitate changes of method.

Where belting is used, and the skirt seams are joined separately from those of the lining, the neatest plan is to turn the top of skirt and lining in edge to edge, turning in only a quarter of an inch (or less), and tacking together ; the skirt can then be seamed to the belt, and if the worker has been careful to take both stuff and lining on her needle at every stitch, the finish will be neat, secure, and flat.

Where the making of the skirt seams puts this method of banding the waist out of the question, it is sometimes finished by laying the raw edge of the skirt top outside the belt, about a quarter of an inch above the edge, and firmly stitching it through ; a length of galloon is then hemmed along—one edge to the belt and one edge covering the raw edges and the line of sewing, to strengthen and neaten all. The galloon must be slightly eased to the belt in the hemming, and where it is intended to use this method of finishing it is a saving of time and labour to machine the galloon to the band before joining the latter to the skirt.

With double belting, the setting-on is much the same , the skirt is stitched to the under part of the belt, and the upper part then laid down and hemmed through to neaten. If the upper part could be eased on, as explained for the galloon above, this belting would be very useful in dress-making ; but being perfectly straight at both edges, it simply lifts the skirt up into the waist, shortening the one and filling up the other to the quantity of skirt top between

the belting. If both the open edges for a quarter of an inch up could be woven with a greater length of thread than the upper part, to give a little frill (much as crepon stripes are woven), it would serve its purpose admirably, the straight part holding the waist, and the frilly edge completely neatening the skirt top, and yet allowing it to spread away below the waist and give the skirt its free and natural hang; but as at present made it is not likely to become a standard finishing.

Cording the waist is a very neat way of finishing for those who object to belts. A strip of the material on the cross, an inch wide, is prepared, and the piping cord laid on one edge, which is turned, and tacked down over it. The cording thus prepared is then laid to the outside of the skirt waist, with the corded edge

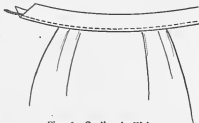


Fig. 46.—Cording the Waist.

down (towards the bottom edge), and the broad raw edge of the strip upwards, and a line of firm stitching is taken through to the inside of the skirt and close down to the cording. When this is done the cord is pressed back to stand up, and the broad turning of the cross strip turned under, and hemmed along to the lining inside the skirt top. This plan turns down a quarter of an inch of the skirt top, and if the back breadth is pleated raw-edged, makes rather too much bulk there. If, however, the material and lining have been turned in edge to edge before pleating, and firmly overcast together afterwards, the sewing on of the cording can be to the extreme top edge, and all undue bulk avoided. Large gathers can be quite easily sewn to the cording.

Binding the waist with a cross-strip either of the material

or of silk, *without* cording, would not serve, as it would soon stretch, and spoil the fit and hang of the skirt; a firm straight ribbon should be used, if the cord is not liked.

When the waist is to be bound to leave a narrow binding visible, a narrow ribbon (galloon or Paris binding) is laid against the outside of the skirt a quarter of an inch below the top raw edge, and strongly run and back-stitched or machined along quite close to the purl; the ribbon is then turned over the top, and firmly hemmed against the line of stitching on the inside. Finished in this way, the ribbon shows as a binding or narrow belt above the skirt waist.

Where it is desired to bind the top of the skirt with this firm ribbon, yet in such a way that the ribbon shall *not* show as a binding or narrow belt above it, it may be put on as explained above, but about three inches of extra length should be made into tiny pleats at the front and sides to allow it to turn over easily, and lie flat to the waist and hips, inside the top of the skirt. The pleats are preferable to easing, as they fill up less, but either pleats or easing must be used—if the ribbon is put on without some extra fulness at the top and then turned quite down and hemmed, it will apparently sit well to the skirt until the latter comes to be worn, when it will appear very full and drawn-looking for some distance below the waist, instead of sitting smoothly to the figure.

Belting can be obtained in various widths and qualities, varying from stiff cotton or hemp to rich corded silk; it should certainly be firm, but as certainly should not be hard, or the wear on the corsets or under-bodice is a serious item against it. Prices vary from one penny to one shilling per yard. Corded silk is considered the strongest.

Double belting has already been spoken of. Its newest development is the steel belt, a double belt with a band of soft steel in the upper part fastening with studs

and eyes. It is claimed for this invention that it will not stretch or slip, and if the steel is soft, and a comfortable size chosen, there seems no reason why such belts should not prove very useful. Ribbon for binding skirt waists should be firm and strong, but very narrow—half an inch is wide enough unless it is intended to fold and use it double. A wide ribbon would not be different from a double belting in any respect, but that of wearing out sooner.

Skirts are now almost invariably supported, being fastened to the bodice by one or two hooks and eyes, sewn respectively to the skirt back and the bodice belt. The eyes should be sewn to the bodice belt half-way up, and also half-way between the curved and centre back seams if two are used, or across the back seam only if "nautilus" hooks and eyes are preferred. Opinions differ as to whether the hooks should face the inside or the outside of the skirt. There is less risk of showing if they are placed well inside it, and sewn on with the hooked or turned part placed as usual (as if intended to fasten the skirt to the inner clothing, not turned towards the skirt itself); and when the eyes are sewn on by the two little rings only they will be found quite easy to fasten if the skirt top is bound down—not belted. If both are belted, the hooks are often sewn to the bodice belt, and strong thread loops made on the outside of the skirt belt; but buttons inside the bodice belt and button-holes in the skirt belt (or long worked loops of strong thread made just outside its lower edge) are found to be easier for the wearer to adjust.

When the dress consists of skirt and banded bodice sewn together at the waist, the manner of arranging that the front opening of the bodice and the placket of the skirt shall both be available is a very puzzling affair to the inexperienced worker. There are, of course, various methods of arrangement, but as a general rule the bodice is bound up with a firm binding, either shaped or on the cross unless it is very narrow (half an inch), and the top of the skirt

overcast and turned down a quarter of an inch, after which it is arranged to the lower edge of the bodice as if the latter were a belt, and the back and the whole of the right side of the skirt seamed to it. The left side of the skirt front should be bound down separately from the bodice. When in wear, the left half of the skirt should be fastened across to the back as usual, the upper edge of this part of the skirt being attached to the bodice by three small buttons on the bodice and three button-holes or strong worked loops of thread on the skirt. Hooks and loops, or hooks and eyes, may be substituted, but are more likely to come unfastened. An outer belt is worn with dresses so arranged.

Occasionally the bottom edge of the bodice and the top edge of the skirt are both left raw-edged, and the two are joined with a cording between them, the cording being made in a broad cross strip, one edge of which afterwards neatens up the bodice and the other the top of the skirt. Where the skirt and bodice are separate—*i.e.*, at the left side, from the front to the placket opening—the cording is continued along the top of the skirt (the portion of bodice being plainly bound up with another cross strip). A few small hooks could be sewn to the skirt, and loops to correspond on the lower edge of the bodice; and the whole would need very careful arrangement, as an outer belt would not be worn with a dress finished in this way at the waist. When such dresses are in vogue, it is customary to bring the placket opening further forward, that as much of the skirt as possible may be secured to the bodice; and with very full pleated skirts the opening was always cut under the first pleat from the centre of the front towards the left side.

At from eight to ten inches below the waist the back breadth needs some slight restraint to keep it from falling to the sides. Sometimes this is arranged by sewing a tape to each side seam and tying across. With foundation skirts a broad piece of tape is machined along both edges across the back breadth, making a slot through which a runner of

tape is carried, and tied across to confine the back into place. Occasionally the tape is securely stitched to the seam at each end of the slot, and drawn up in the middle through a hole made in the slot-tape for that purpose, to relieve the wearer of the feeling of constraint in walking which the tied tapes always give; and sometimes a length of broad (garter) elastic is run in the slot, and tying altogether dispensed with. Such slots were also used for runners of steel in crinoline days, and both ends must be arranged to come exactly the same distance below the waist, if the risk of one side of the skirt lifting up and appearing short is to be avoided. The slots should be hemmed at each end, and then machined on before the back is joined to the front, and the ends of the slot must not be machined in with the seams if the runner is to pass through them.

With lined skirts the runner and slot cannot be used, but after the waist has been fixed to the band by the large gathers, as explained, the gathers themselves, at about eight to ten inches below the waist, should be set on a length of broad elastic or tape from eight to ten inches long, and already hemmed at both ends. Elastic is preferable, as, being yielding, it is less likely to tear away; it should be put inside the skirt, and the groove of each deep gather pinned to it (spreading the gathers apart to make them fill the length of the tape, and spacing them nicely); each gather is then secured by two or three catch stitches, the hemmed ends being left free to avoid showing "pull."

Pleats should be caught down to a tape or elastic in the same way, the catch-stitches being taken through the inner fold of each pleat only; and even trained skirts are none the worse for such slight restraint, as it tends to confine the flow to the centre of the back (where it is most required), and so prevents the lower part of the front of the skirt being drawn in to the feet by the drag of the train on the bottom edge.

Foundation Skirt.—The lengths for a foundation skirt should be neatly run and felled over by machine (the pocket space being left open), the darts machined and opened, and each side felled back, or overcast and pressed flat. The top should be turned over half an inch (the turnings to come to the outside of the skirt) and tacked over, the skirt then placed on the table and folded carefully in half from the centre of the front, the top pinned together, and the lengths of front, back, and side very carefully checked down and the bottom edge shaped as already explained, the excess length being cut away, and only half an inch all the way round left for turnings.

An outside facing and an inside hem, both of the outside material, should next be prepared, and carefully fitted to the bottom edge of the skirt, the outside facing being a couple of inches deeper than the hem for the inside—the latter is sometimes of the foundation material in inferior work.

The upper edges of both hem and facing should be turned over and pressed down ready for hemming, and then the two should be adjusted to the skirt edge in the following manner. The facing is put on the outside of the skirt face up (or as it will be when completed); outside this the inside hem is placed face down and the muslin stiffening (if used) above it—the three (or four) thicknesses are then tacked together, and machined through at the lower edge, just the half-inch above the bottom edge allowed for in checking down the length. The sewing is then pressed, the turnings are either left or pared away, and the inside hem, turned up on the inside of the skirt, tacked into place and machined through, and finally the outside facing machined down, hiding the sewing on of the inside hem completely.

For foundation skirts the bottom braid is generally run on the right side and then turned over and hemmed on the wrong.

The back breadths are next gathered or pleated up, and

the whole of the waist closely seamed to the belt, the pocket, faced and finished, firmly stitched into the seam, the inside turnings overcast, and the placket facing run on. The skirt is then ready for the overskirt or draperies.

The skirt is hung on a dress-stand for the better adjustment of the overskirt, and the pleats from the waist are drawn and spread slightly, that the whole back breadth may measure from eight to ten inches across at the bottom of the placket. The back should be firmly stitched down at this width, and again half way between this and the waist, the stitches being taken over the edges of each pleat, and either through to an elastic or tape as for lined skirts, or only to the material itself—it being no serious objection in a foundation skirt if stitches show through, as long as they are neatly and regularly made.

The lower parts of the draperies or overskirt should be already hemmed, trimmed, and finished as far as practicable apart from the foundation. It should then be pinned or tacked (raw edged) along the waist of the foundation, just below the belt, the raw edge of the drapery placket fixed to that of the skirt, and the piece already sewn on brought over it and hemmed firmly over.

The ribbon from the belt is next turned down over the raw edges and hemmed firmly through, making all neat and secure. Short over-skirts are lifted by the wearer when the pocket is to be used, but with long ones, or draperies, it is necessary to make the opening through from the outside. If there is a seam in the over-skirt or drapery to correspond with the one below in which the pocket is set, it saves cutting. Otherwise the drapery is carefully pinned to the foundation all round the pocket mouth, a slit cut, and the edges turned under and carefully slip-stitched down. Great care is taken that it is not pulled or strained at any part, as that would cause the pocket mouth to draw open when the skirt is in wear.

There are generally two hangers to a skirt. They are

about four inches long, and made of Paris binding or galloon, and are hemmed in at each end just at the lower edge of the belt, along the top of the gore nearest the back breadth. They should be easy for the belt, that they may not draw it up, and should be very strongly sewn on.

Bottom braids vary in width and quality; it is very poor economy to choose a cheap one. Those of black and fast colours are plunged into boiling water to shrink them, as they are apt to shrink on the skirt if they get wet, and so draw up the bottom edge, to the great detriment of the hang and appearance of the skirt. With colours specially matched to the material this heroic treatment might not prove safe, and the alternatives are to press the braid thoroughly with a hot iron through a wet cloth, or to hold it in the steam of a fast-boiling kettle till thoroughly saturated with moisture, and then iron dry, always taking care to ease the braid on well when running it on, as a further security against shrinking. Firm, close, fine braid should be chosen; soft bulky ones rub through very quickly.

The use of cross strips of velveteen for bottom edge bindings is a great improvement on the braid, as the velveteen both wears and looks better, and it seems likely to entirely supplant braid in the public favour.

Skirt Difficulties.—Should the front fall full between the feet, it has been too much gored at the top, or too much hollowed there, in proportion to the bottom. The remedy would be to take off some of the slope, thus narrowing the bottom; or to decrease the hollowing by cutting away a little of the stuff all round the waist, except at the hollowed part.

If it falls in at the feet behind, either the back breadth is too scanty or the side seams (where it joins the side gores) are too far forward on the figure, or the front of the skirt is too narrow in the bottom width. Increasing the width of the back breadth, setting in a wider front, or adding two small side gores, should remove the defect.

Draping across the hips is caused by the skirt not being hollowed enough at the top of the front and the side-gores.

Straining across the hips appears if enough has not been taken out in darts or hollowing at waist, or if the gores are too straight for the figure ; or if the hips-measure used is too close, or the skirt is tied back too closely.

If the skirt is too long, the obvious remedy is to shorten it at the bottom edge, which does not affect the fit round the hips so much as shortening at the waist, though the latter must be resorted to if the bottom edge is much trimmed.

If it is too short, it is best to let down any waist or bottom-edge turnings, if possible ; if not, to sink the skirt on a shaped band, or set on a false hem, hiding it by a flounce or band of trimming.

Twisting round the knees is often caused by the wearer having an under-skirt wider than the dress-skirt itself, but is also a fault that may arise from bad joining of the seams (see "*Seams Running Awry*," page 58) or bad cutting-off of the lengths at the start. Drapers generally run the arm forward at a slant or slight curve when cutting-off lengths of material, and a careful worker will measure her lengths down from the shortest side of the slant, and fold very carefully for the cutting-off, pinning the selvedge edges together to make the fold run to a thread, and finally paring away the little surplus piece of slant. If this precaution is neglected, and the lengths are measured off down each side of the selvedge from the slant, the skirt will be inclined to twist, and also to lift at one side, which is most provoking when repeated careful measuring fails to detect any difference between the lengths of both sides. The defect is one difficult to remedy, but is best dealt with by letting-down, if the fashion in which the dress is made will permit it.

Corpulent figures sometimes take a skirt as long at the front as at the back, or longer, and those with large

hips may need the length at the sides increased in the same way.

In such cases side and back measures should be taken as well as front, and the skirt checked by them from the waist down.

If the front is longer than the back, the figure will be prominent below the waist. The front breadth should not be hollowed out, but a curved dart, from a half to three-quarters of an inch on the double, or from one to one and a-half inches across altogether, and five or six inches long, should be put in on the fold of the front, which often gives the required difference in length without cutting the front longer; or it may be taken up in the lining only, and the stuff eased over it, if so preferred.

One plan of dealing with extra long fronts of this class is to cut the front breadth of the skirt a-half or three-quarters of an inch longer than the selvedge edge of the side gores, hollow the top as usual, and ease the surplus length allowed into the seams over a space of about five inches below the waist when joining the pieces. This plan gives the extra length required without the inclination to drop in between the feet, and is worthy of consideration.

For large flat hips a big dart three inches wide will sometimes give the extra length; but with large rounded hips this will not serve, and the extra length must be allowed in the seams, adding it at the bottom edge. Hips are seldom so large that the centre back of the skirt cannot be left the same length as the side-seams; but if this *should* happen, the shortening should be made at the *top*, not at the bottom-edge of the back breadth.

CHAPTER VIII.

WASHING-DRESSES.

Bodices for Washing—Styles for Washing-dresses—Suitable Linings—
—Wadding—Cotton for Sewing Preferable to Silk—Facings and Inside
Bindings—Buttons to be Preferred to Hooks and Eyes—The Belt—
The Skirt and its Lining—How to Provide for Shrinking—Back
Gathers and Skirt Belt, etc.

DRESSES that will need washing at intervals must be made in such a way that they will come through the ordeals of washing, drying, and ironing with as little detriment to their wearing qualities and appearance as possible. To attain this end several differences, both of method and in the choice of inside finishings, must be made as compared with ordinary woollen dresses.

Bodices for washing-dresses should be made in a style that will wash and get up easily, and should, if possible, be cut a few inches long below the waist to allow for shrinking, or to reach several inches below the waist and be belted, that the shrinking may not signify. The style should be loose, as with blouses, and full, or set in pleats or tucks. Unlined blouses are certainly the easiest to wash, but where a lining is required it is an advantage to have it to fasten separately from the stuff at front, the latter being folded or drawn across to entirely conceal the closing. Plain pointed bodices seldom wash satisfactorily, as far as the fitting is concerned.

Linings with black backs should never be used, nor

should they be of a colour likely to run in washing. Grey linen should be used for very dark or black prints, and calico, white silesia, or sateen for other colours. Calico for linings should be soaked over-night in warm water to shrink it thoroughly, and then ironed smooth again before being cut. Very hard calico should be washed or scalded.

Wadding should not be used between lining and stuff. If the figure requires it, it should be made as a separate padding between two pieces of white sarcenet, and tacked inside the finished dress; it can then be easily removed for washing.

The outside material should not be stretched on the lining, or only very slightly, to minimise possible shrinking. All the sewing should be done with cotton; silk changes colour in washing, and so is unsuitable for either seams or outside work (including the button-holes), and should not be used. For the same reason—*i.e.*, that silk washes badly—the seams should be overcast, or turned in edge to edge and run, in preference to binding (the latter is often done, the look of the binding after washing not being considered of very great importance in comparison with the protection it gives the edges of the turnings); all facings and inside bindings should be of the outside material instead of silk or sarcenet; and the bone-casings wash better if of fine tape (though white Paris binding is often employed). The bones should only be lightly tacked in, that they may be quickly removed and replaced. Any linen or stiffening should be white or “whitey-brown,” and collars should be stiffened with two or three thicknesses of good, firm check muslin; the sewing is less likely to give if they are made and put on by the method given on page 24.

Hooks and eyes should not be used, as they do not wash well, and may show a rust-stain through from the drying. Buttons are preferred, but as they are likely to break or press a hole in the bodice during the washing process, they should

be removed each time the dress is washed ; and as constant cutting-off and sewing-on weakens the stuff, they are not simply sewn on as for woollens, but eyelet-holes should be worked for the button-shanks to pass through, and the buttons threaded on a tape passed through the shanks inside the bodice, and then caught across each hole with a few firm stitches to prevent the strain on the button, when fastened, bringing the tape through the hole. Flat buttons perforated with holes should still be sewn to the tape, the stitching going through the eyelet-holes.

The belt should be white or grey, and fastened with a buckle, or a check-string of tape, long enough to tie, used instead. Hangers should be made of either white ribbon or tape, according with the bone-casings.

Skirts are preferably made without lining at all, and when so made the hem should be deep and securely machined or hemmed through—never invisibly hemmed—and the inside seams should be either French seams or the turnings turned in edge to edge and run together, or each one separately turned over and neatly hemmed back (upon itself, not through the skirt). It is an accepted formula in dressmaking to join the seams of a washing-skirt by putting the edges together with the bias edge a little below the selvedge, and running or machining, afterwards turning the selvedge down over the raw edge of the bias and hemming it through to make the seam neat and secure without too many thicknesses of turnings ; but for really good work selvedge edges should be cut entirely away unless notched across (see page 135), as they draw up in washing.

The skirt should be lined with a washing lining (of the same kind as the bodice by preference), and the linings should not be closed in with the seams, on account of the danger of unequal shrinking, but made as a separate foundation skirt where it is not possible to dispense with it altogether (as in draped skirts, etc.).

The top should be closely overcast and turned over a

quarter of an inch before seaming to the belt, if single belting is used, but double belting, binding over with tape or ribbon, or finishing with a crosswise piping, is neater and more secure. Shrinking in the length of the skirt is an awkward thing to provide for. If the top is turned over, it is bulky below the waist, and the line of stitching weakens the stuff and is likely to show if the bodice is short to begin with, or if it also has shrunk much. Tucks can only be applied to a straight (or ungored) skirt, and are not always liked or in fashion, and when let down they show the line of the stitching, unless the latter is very lightly put in at the first; letting down the hem can only be done with straight widths, and there is the same likelihood of the line of stitching showing, and some possible wearing of the bottom edge as well, to take into consideration.

With cottons the shrinking is generally very slight, and if the skirt is made amply long at first it is not likely to become unwearably short after washing. Light woollens are now more frequently dry-cleaned than laundered.

All the sewing should be fine and firm, and all hems and seams thoroughly turned. Raw edges should not be left anywhere, if possible, and where unavoidable by reason of bulk (as in the sewing-in of the pocket), should be very closely overcast. Slip-stitching in any form is quite unsuitable for this class of work, and should never be used in a washing dress at all.

It is wisest to use a rather loose tension in all the machining but that of the bodice seams, as the sewing-cotton is apt to shrink more than the material itself, and produce a slight puckering which cannot be ironed away; in the bodice seams the bones counteract it.

The back gathers should be set on a tape, as elastic does not wash; and the skirt belt should be white or grey, and fastened by buttons and button-holes worked through it; the placket may also close with a button and worked cotton loop. Bottom braid of woollen or worsted may be

used, unless of a bright colour and liable to run, but it should be well shrunk before use, and eased on; it may, however, still shrink too much for the skirt, and need renewing. The braid is a great protection to the edge of the dress, and saves soiling, but is more often used for a servant's plain gown than for a lady's summer dress. When used for the latter it should be folded double and put inside the skirt, and quite under the edge, that it may not be visible from outside.

Dresses of washing silk are finished in much the same manner as those of cotton. Lacing is, however, a favourite fastening. The eyelet-holes are generally worked with cotton, but flat thread or washing silk (of the kind used for embroidery) may be used. The seams should be made with cotton in any case.

CHAPTER IX.

DRESS MATERIALS.

The Making of Woollen Fabrics, Cotton, Linen, Silk, Mohair, and Alpaca—Their Different Qualities—Weaving—Practical Advantages of a Knowledge of Materials—Silks: Twilled, Corded, Patterned, Pile, and Washing, and Mixed Fabrics—Woollens—Cottons—Linen.

The subject of identification of dress material is one of so wide a range that it is impossible to do much more than indicate its extent within the limits of an elementary work like the present.

Admitting that the worker has a thorough and complete knowledge of all the best methods of manipulating those materials with which she has become acquainted in the course of her daily experiences, it is still desirable that she should increase her knowledge of those materials with which she is less familiar, mastering such details of their nature and general qualities as may prove useful to her by bearing more particularly upon her work.

For instance, the dressmaker who is not very sure whether foulard is a double-width woollen or a single-width silk is hardly prepared to calculate the quantity of foulard required for a dress, or to suggest a style in which it should be made, if required to do so at the moment; and some knowledge of the nature of the fabric on which she is working may prevent her scorching and glazing silk by using too hot an iron or bringing moisture in contact with it, or hint to her how to remedy a misfit in woollen stuffs by shrinking away excess of size.

It is a matter of common knowledge that woollen fabrics

are made from the fleece of sheep, which, after being subjected to various processes of cleansing, combing, etc., is spun into yarn of two kinds—wool and worsted. It is also well known that cotton is a downy substance collected from the pod of the cotton plant, where it surrounds the ripened seed, and that neither cotton nor wool is a long filament in itself, but needs a large amount of preliminary preparation before it can be spun into a smooth, strong thread, which is therefore generally round and well-twisted. Linen is made from the stem fibres of the flax-plant, and silk is the long filaments into which the cocoon of the silkworm unwinds, whilst mohair is the hair of the ordinary goat, and alpaca that of a small animal, sometimes called sheep, sometimes goat, and sometimes camel. These are the staple fibres used in making dress materials.

Each of these fibres has its own distinguishing characteristics and special qualities, which are good or bad according to the use to which each is put. Vegetable fibres (flax and cotton) are cool and heavy; animal fibres (silk, wool, and hair) are warm and light; therefore thin cotton stuffs make suitable summer dresses when the thinnest woollens feel heating, whilst thin or moderately thick woollen ones serve admirably for winter wear when a cotton dress of equal thickness would be cold and heavy to carry. Linen is firmer, cooler, heavier, and more expensive than cotton, but its hygienic and domestic characteristics are much the same. The coolness and good washing qualities of vegetable fibre make it particularly suitable for wear by those occupied in heating and soiling work, or in a damp or warm atmosphere, and it is so used by the large majority of our working men and women. Its cheapness and durability are also advantages that must not be overlooked.

Wool does not crush or soil easily, repels dirt, which can be brushed from it, absorbs perspiration without becoming damp and chill, dyes well and wears well, retaining its

surface and freshness of appearance for a long time if carefully worn. But it does not wash well, and shrinks considerably if brought in contact with heat and moisture ; it is therefore quite unsuitable for wear at soiling or heating work, though much better adapted than cotton for wear during the ordinary pursuits of every-day life.

It is evident that fibres differing so entirely in their essential qualities will not combine well ; thus cotton is heavy, crushes easily, does not take the darker dyes so well as wool, and soon wears shabby and loses its freshness of surface and colour. If it is mixed with wool it imparts these characteristics to the fabric made from the mixture, to the degree of the quantity of cotton used, and is in that sense decidedly an adulterant, though cotton fabrics which do not pretend to be anything else are amongst our most durable and useful dress materials.

Silk, in addition to its beauty, has all the good qualities of the other fibres combined ; it is lighter and less heating, though as warm as wool, and dyes and wears well, and in some of its varieties washes as well as cotton while still retaining its own peculiar softness and brightness. The admixture of wool increases its bulk without detracting from its good wearing qualities, as in the manufacture of poplin, bengaline, etc. Hair is more brittle and springy than wool, and is more difficult to work into cloth ; it is generally combined with one or other of the foregoing fibres, and gives a bright, springy fabric liable to splitting, and which is usually difficult to manipulate into satisfactory bodices. Goods of the kind—mohair, lustre, alpaca—are favoured when large sleeves and wide flowing skirts are the prevailing styles, but drop out of request as soon as close-fitting bodices and draperies rule the fashion.

There are many varieties of each fibre, and many different ways of preparing each one for manufacture into material. The differences may be in the preparatory processes, in the spinning, the weaving, or in any of the after-processes of

finishing, and one or another will give its distinguishing name to the finished fabric. Thus, Botany wool is a peculiarly soft, fine wool; Cheviot is a firm, short, springy one: therefore Botany beige and Botany serge are goods made from Botany wool, and combining its soft fineness with their other distinctive qualities, whilst Cheviot serge, Cheviot tweed, Cheviot beige, may be expected to retain their own special points of twill, etc., and yet be rough, springy, and inclined to fray easily, by reason of being manufactured from that particular class of wool.

Coming to the weaving, any woman who understands how to darn has a very general idea of the process of weaving in miniature. For darning she first fills the hole with long threads and then weaves another thread across them, passing it over and under the first set of threads alternately until the latter are quite covered, when the hole is filled with what is practically a piece of material woven by hand, which may be compared with basket or mat-making, but which certainly embodies in itself the primary processes of weaving.

In a very different way, but on the same principle, long threads are wound on a roller which is placed at the back of a loom, and the threads are brought forward, passing through the healds and reed to regulate them and keep them apart, and are finally wound at the front on another roller which draws the woven cloth down. These are the warp threads, which run the selvedge way of the manufactured material, and which, in our comparison of weaving and darning, represent the long threads with which the hole is first filled.

The weft thread is wound on a bobbin which is encased in a shuttle; and whereas in darning the worker passes her needle alternately over and under the foundation threads of the darn, the weaver attaches the weft thread coming from the shuttle to the warp, and the process of weaving on a large scale is carried on by mechanical action of the

loom and its attachments. A number of the healds lift up the warp threads already passed through them, and mechanical arms—one at each side of the loom—cast the shuttle backwards and forwards over those warp threads which are not lifted, the healds raising and depressing them alternately between each passage of the shuttle according to the pattern to be woven, so that the weft is constantly being passed over and under the different threads, but all, of course, in the perfect order and rotation necessary to the production of the pattern.

It may be asked how far this primary knowledge may help the dressmaker in her every-day work : it will at least help her to treat intelligently the material upon which she works. If she knows that the long, straight warp threads that run the selvedge way are the strongest, she will cut her material in such a way that these threads bear the strain where it has to be borne, and she will also be able to distinguish the way of the threads on any small portion of material, even if it happens to be without the selvedge. By unraveling a little she will find smooth, strong threads that easily draw out running one way of the piece, and soft, curling waved threads that have acquired a decided crinkle from being twined and twisted over and under the warp, running the other way ; she will know that this is the weft way of the material, which will not bear weight or strain to the same degree as the warp, as weight would draw the threads down straight and cause the skirt, in dressmaker's parlance, to "drop."

Carrying on the comparison between darning and weaving : the needlewoman knows how in a simple darn—worked, say, by the rule of take one, leave one—the fabric is comparatively open, nor is it possible to make it very close even by constant pressing together of the filling-up threads, whilst the use of thicker threads only results in a clumsy darn ; but if she works the rule of, say, take three, miss one for the first row, and in the beginning of each succeeding

row moves the pattern on by one stitch or thread, the hole when filled will present the appearance of a diagonal twill or lines of stitches running in a slanting direction from corner to corner, and the woven fabric thus formed will be closer and firmer than the plain darn, even if it is worked in a finer thread.

The same holds good in weaving. Twilled materials can be made closer and firmer, in proportion to the weight of yarn used in their production, than plain ones, and will wear and resist friction better. This seems to be so generally accepted that we have very few plain standard fabrics in woollen or worsted; the majority are twilled, even if the twill is so fine that it does not show unless it is looked for.

Reference to worsted and woollen brings us to the great division which is made in woollen stuffs by the kind of yarn from which they are woven. To understand this we must bear in mind the nature of the fibre from which the yarn is spun. Both wool and worsted are made from the wool of the ordinary sheep. Each hair or filament of the fleece is formed of layers of minute scales, overlapping each other and smoothing downwards from the root towards the tip. These scales possess to a high degree the quality of interlocking (or tangling) with each other, which is much helped by friction and pressure, and this quality is turned to account in the production of woollen yarn, for which the shorter fibres are used. For this, and from first to last, in every process, the fibres are allowed to lie roughly, to fall across each other and tangle and twist and intertwine, the result being a rough yarn admirably suited for the production of a cloth which is to be rendered still firmer by milling or fulling. For worsted, on the contrary, all the wool is kept straight, and as far as possible, smoothed the one way; the longest wool is chosen, and all the processes through which it passes aim at this one end—to keep it straight and smooth. The yarn spun from this has, consequently, none

of the "milling" qualities of wool, but is smooth, straight, and firm, and when well twisted is capable of producing a fabric with very different characteristics from those of ordinary cloth.

The surface is smooth, the twill clear and well-defined, and anyone who has worn serge can attest its durability. Most dress materials are worsted, and the difference in the yarn is one of the leading points by which to distinguish between the different fabrics, as those of woollen yarn are generally milled or fulled after weaving to close them up, and the twill in a fabric that has been milled is rendered indistinct by the process, and seems sunk below the surface. Those fabrics which are called "cloth"—as habit cloth, amazon cloth, etc.—are milled woollens, and can be distinguished by this, and by the solidity imparted to them by the subsequent process of pressing.

SILKS.

The thick, lustrous, plain reversible dress silk, alike on both sides and as thick and firm as a fine calico, is too well known to need description.

GLACÉ SILK is a thin, papery, rustling silk, now almost exclusively used for skirt linings and bodice finishings.

CHENÉ SILK.—Glacé silk with a soft "clouded" design upon it, the design printed on the warp before the weft is put in.

TWILLED SILKS.

SURAH SILK.—A soft, bright, thin silk, twilled on both sides. It is frequently shot—*i.e.*, woven with warp of one colour and weft of another—and it curls up when cut, a peculiarity of twilled silks.

SATIN MERVEILLEUX.—A soft, twilled satin, resembling thick, rich surah, but with a brighter face and duller back. It also curls up when cut.

CORDED SILKS.

GROS GRAIN.—A firm, rather dull silk, showing a flat cord across from selvedge to selvedge.

FAILLE FRANÇAISE.—Similar to gros grain, but softer and brighter.

CORDED SILK.—Similar in substance and brightness to gros grain, with a rounder cord, varying from very fine to very coarse in thickness.

JAPANESE SILK.—Hard and springy, very liable to tear and split; is often confused with silk alpaca (which it much resembles) by the slightly informed.

MOIRÉ ANTIQUE AND WATERED SILK.—The brilliancy of silk can be very much enhanced by the combined application of heat, moisture, and pressure, and advantage has been taken of this quality to produce one of the most attractive of our rich fabrics. The silk is moistened and then subjected to treatment by hot pressure, by which a bright, waving pattern is burnished upon it in glistening lines and waves. In *moiré antique* the pattern resembles a thin, narrow stream of bright water, running irregularly over the surface. In the more modern watered silk the pattern is in stripes about three or four inches wide, and is in waves, as if the water had been pushed up the length of the stripe with the half-opened hand. Both watered silk and *moiré antique* are watered on gros grain silk. Satin is also occasionally watered, and *moiré faille* (watered *faille française*), together with striped, shot, shaded, and marbled varieties, mark the return of watered silks into fashion in 1894.

ONDINE SILK.—Shows a thick cord with small honeycomb pattern or stripes of soft, puffed, crape-like silk between, and may be described as a kind of corded silk crepon.

OTTOMAN. A thick silk, more frequently used for mantles than dresses. The name "Ottoman" refers to the pattern of the cord, which consists of one thick, bright cord and two or three thin cords between, and the name is also applied to woollens woven in this design.

SARCENET.—A thin, open silk, stiffened and highly lusted by hot pressure. (See "Watered Silks," page 171.) Exclusively used for linings and inside finishings.

SATIN.—The distinguishing point of satin is its glossy, lustrous face. This is obtained in the weaving, four-fifths of the warp or weft being brought to the surface (the weave resembling a darn of take one, miss four). Every needle-

woman knows the beautifully-smooth satin stitch used in embroidery: the satin weave is an application of the same principle to weaving. Inferior satins with cotton back and silk face are of course to be obtained, the method of weaving being applied to cotton and wool as well as to silk. Cotton satins are called sateens; woollen satins are called satin cloths (sometimes satinette and satinlaine); *satin merveilleux* is, as we have said, a soft twilled satin. Satin is occasionally watered, when it would, of course, be called watered satin. *Peau de soie* is a rather dull sateen-finished silk.

PATTERNED SILKS.

BROCADE.—Resembles damask in showing a large, handsome pattern on a satin ground, but is not double all through, though the figures are woven with an extra thread. It can be distinguished by the threads at the back of the design, which in damask are equal in length, in brocade longer and more irregular.

BROCHÉ.—Resembles brocade, though the patterns are generally smaller and less effective, and are only embossed on the surface, not carried through. Broché is a less expensive copy of brocade.

PILE FABRICS.

PLUSH.—A rich silk fabric, with a full pile or shag on the face, and dull, plain back. Pile is formed by loops, which are thrown upwards above the surface in the weaving and afterwards cut.

SILK VELVET.—Similar to plush, but with a shorter, closer, more upright pile. *Patent velvet.*—A copy of velvet, with the pile made of silk and the back, or foundation threads on which it is raised, of cotton. *Terry velvet* is a variety of velvet with the loops left regular, but uncut. *Frisé velvet* is uncut velvet, but with the loops laid irregularly, showing a surface of soft curl. *Shot velvet* shows a pile raised from a ground of contrasting colour. There is infinite variety of corded, striped, and patterned velvets, amongst which may be named corduroy velvet, brocaded velvet, shaded velvet, etc. In velvet brocade the pattern is raised from a satin or gauze ground. Stamped velvet or plush explains itself.

VELVETEEN (See "Silk Velvet.")—A copy of velvet in cotton, but so beautifully dyed and finished as to take rank as a standard material for better wear. It is soft, and lacks the crisp, firm feeling by which silk velvet can be distinguished from imitations.

MIXED FABRICS.

IRISH POPLIN.—Silk warp and worsted weft, showing a full, smooth, round cord across from selvedge to selvedge.

BENGALINE.—Closely resembles poplin, but has a flatter, finer cord, composed of two or more threads instead of one.

WASHING SILKS.

FOULARD.—Manufactured twilled soft washing silk, printed in coloured designs. A large quantity of Chinese and Indian soft washing silks are used for summer dresses. *Tussore* is a well-known variety of the Indian raw washing silk. It is a "whitey-brown" in colour, rather dull in surface, and has a slightly rough grainy feeling, not unlike the feeling of serge. This is the characteristic mark of the soft Indian silks by which they may be distinguished from the soft Chinese silks, which are smooth to the touch and glossy in surface. Printed and embroidered Tussores are both in use. *Printed Pongees* are not unlike foulard, but may be distinguished by the absence of twill and the slightly streaky, shiny look on the surface (as if it has been ironed across unequally), which is a distinctive mark of Pongee silk.

TRANSPARENT FABRICS.

GAUZE.—A thin, open fabric of silk or cotton, the holes in which are made by the threads being twisted round each other differing in this respect from canvas, in which the crossing-threads are simply overlapped, and can be moved or pushed apart. In *Net* the holes are made by knotting. *Crape* is a very open gauze made from yarn which has been damped and much twisted before weaving. *Crêpe-de-Chine* is soft silk crape.

GRENADINE.—A rather thick silk gauze, generally with a solid design or pattern upon it, but sometimes plain; also combined in stripes with other weaves, as satin, velvet, moiré, etc.

WOOLLEN MATERIALS.

ALPACA (See "Mohair").—A shiny, springy plain fabric made from the bright hair or wool of the alpaca; combined with silk for the finer qualities, with wool or cotton for commoner.

BARÈGE.—Very light, semi-transparent material of wool and silk, the latter thrown up to face; a slightly corded look, though the surface is level.

BEIGE.—Firm, thin worsted, smooth and clean-looking, showing a smooth twill; made from natural (unbleached and undyed) wool, which gives it a slightly streaky appearance; Beige, whether plain or twilled, should, to be strictly correct, be in tones of natural colour—greys, fawns, drabs, etc.—and with that mingled look which would naturally come from quantities of wool of the same colour, but different here and there in tone, shade, and thickness, being worked up together. A habit-cloth (see "Cloth") of beige wool is known as "habit beige" or "covert coating." (See also "Tweed.")

CARMELITE.—Similar to thin, plain beige in substance and general appearance (see "Beige"), but more open, and made from softer spun and less twisted yarn.

CASHMERE.—A fine, light worsted, twilled face, plain back, showing slight cord across. The twill is the finest made; it is a "dancing" or irregular twill, broken into a series of short steps. *Indian cashmere*, a variety of the same, is slightly thicker and a little more woolly in appearance, and has a twill on both sides. *Henrietta cloth* resembles fine good cashmere, but is made with silk warp or weft.

CLOTH.—A woollen fabric which, in addition to being fulled (see "Foulé"), has been rendered closer and more compact by being submitted to heavy pressure. *Melton cloth* (being a "broad," 52-inch-wide firm cloth) falls more properly within the province of the tailor than of the dressmaker. The lighter makes are, however, used for tailor-made dresses, and so have gradually come within the dressmaker's range. In the better qualities it is a beautifully firm, fine, smooth, close cloth, sometimes shrunk or milled two or three times to give it extra compactness and consequent durability. It is unfortunately the cloth most easily copied in inferior materials

(see "Shoddy"), and has in consequence fallen much into disrepute. It has all the distinguishing points of cloth, and the surface is generally finished with a slight gloss or glaze (see "Cloth"). *Habit cloth* is ordinary width, and is soft and supple, finished with a bright, glossy nap. *Amazon cloth* is duller, harder, and firmer than habit (it probably has a little cotton combined with it), and has only a slight ply on the surface. *Vicuna cloth* is much like Amazon in appearance, with the slight ply and dull finish, but is more pliable to the touch (is supposed to be made from the delicately soft wool of the vicuna).

CORD.—The general term "cord" is applied to any material where the lines run down the material, in the same direction as the selvedge. *Russell* and *Persian* cords are single-width varieties of firm, smooth material with a fine cord upon it, now almost entirely used for skirt linings. They rather resemble a coarsely-corded alpaca. In the various corded materials the names are given to the pattern of the cord; thus "hair-cord" is applied to a cord as fine as a hair, "éping-line" to cord as round as a pin, etc., whether the material is of silk, wool, or cotton. *Corduroy*.—Applied to alternate narrow stripes of pile and plain; *coutille* is a sunk cord, looking as if the surface of the fabric had been cut down and had fallen slightly apart.

CRAPE CLOTH.—Firm fabric of medium weight, used for mourning; surface woven to imitate mourning crape; back plain. Coloured crape cloths return into fashion from time to time, and are called by some name signifying crape.

CREPON (Woollen).—A material créped or crimped in the weaving to look puffed or puckered between stripes or squares of plain weave.

DELAINE (*Mousseline-de-laine*).—A thin, fine, plain woollen, printed with floral designs. The ground colour as well as the design is laid on the face of the fabric. The back is always lighter, and in dark delaines has a streaky look, as if the colour has not gone through equally; the face has a flat, smooth, dull look, and the fabric, though one of the lightest woollens made, does not soil or crush easily.

ÉPINGLINE.—Medium weight woollen sateen, showing a slight cord the thickness of a pin across (see "Cords").

FLANNEL.—A well-known soft, plain woollen, mostly used for underclothing, twilled in the finer qualities. A close, firm twilled flannel (practically French twill) is often used for tennis or boating-dresses.

FOULÉ.—Fulling is a process in woollen manufacture in which the woven cloth is treated with soap and water and beaten with heavy mallets to shrink and compact it, fabrics so treated being rendered closer and firmer. Foulé is a thin, soft cloth, velvety to the touch, and with a soft closeness given to it by this process of fulling from which it derives its distinguishing name. Foulé beige, foulé serge, foulé cashmere, would therefore be materials which, in addition to their own distinctive peculiarities, have undergone the process of fulling.

GRENADINE (Woollen).—Woollen copy of silk grenadine.

HOPSACK.—Coarse closely woven woollen canvas (see "Canvas").

LINSEY.—A stout, serviceable fabric, made of inferior flax and wool; hard and firm, and as durable as it is dingy. It sells at about sixpence per yard single-width, and is now very little used excepting by the poorer classes, though at one time the better qualities took the rank now accorded to serge and tweeds.

LLAMA CLOTH.—A light fabric from llama wool, resembling a plain delaine or nuns' veiling, but rather heavier than either, and without the "pearly" look of the latter.

LUSTRE.—(See "Alpaca" and "Mohair").

MERINO.—Medium weight soft worsted, slightly thicker than cashmere, which it resembles in surface. Twilled on both sides, and has a soft, pulpy feeling by which it can be distinguished from other materials of similar appearance, as Indian serge, Indian cashmere, etc.

MOHAIR.—Material made from goats' hair, worked with silk, wool, worsted, or cotton warp. In the better qualities (combined with silk) it is silky and lustrous; the commoner makes have a slightly water-waved, shiny appearance, and are very much like coarse alpaca. *Lustre* is a variety of mohair, and at one time lustres of every class—alpaca lustre, silk lustre, etc.—were all in vogue; they are still occasionally used. They all have the bright, smooth, shining look of

hair, are springy and supple, and do not soil easily; and they would be called silk lustre, cotton lustre, alpaca lustre, etc., according to the other fibre combined with the mohair in their production, which is always of a different colour, or lighter or darker shade. These (like alpaca and tafleta) are now only made in inferior qualities, chiefly for skirt linings and foundations. Goods of the class may always be expected to return into fashion when wide skirts are worn.

NUNS' VEILING.—A thin, fine, plain, soft woollen, rather open in texture, and with a pearly look, as if the yarn from which it is woven had been wetted and rough-dried before the weaving.

OTTOMAN CLOTH.—(See "Silk.")

PARAMATTA.—Material closely resembling cashmere, but harder in touch and appearance.

REP.—Generally a mixture of silk and wool, with a flat-looking cord running across from selvedge to selvedge (sometimes only wool). The varieties are too numerous to detail.

SATIN CLOTH (Woollen satin).—Woollen material woven and finished by hot pressure to show a smooth, lustrous face like satin.

SERGE.—This popular fabric is a rather harsh, rough, springy, worsted material, nearly always alike on both sides. It has a "grainy" appearance and touch in the perfectly reversible fine-twill makes, and is made in a wide range of weights and qualities. The thinner and finer kind, called summer serge, closely resembles a firm foulé. There is medium weight with a distinct twill and smooth surface and plain back, usually called worsted suiting or worsted coating, whilst the loosely woven diagonal serges made from Cheviot wool might almost be considered another material altogether. Sea-water is used in the various manufacturing processes of navy serges, so that the dye may stand the action of air and water. Indian serge is a particularly fine make, with a smooth, even twill on both sides and well-finished surface; it can hardly be distinguished from merino or goods of that class except by its dull finish.

SHODDY (Re-manufactured woollen cloth).—Worn-out woollen rags torn into minute shreds and respun; the

material made from this yarn cannot boast much elasticity or durability, and the dyes are generally poor in tone and have a dark purplish cast or tinge, whatever the colour. The price is low. Melton cloth, fifty-two inches wide at one shilling per yard, comes under this head.

TAFFETA (at one time a silken fabric).—The name is now applied to a coarse kind of alpaca (see "Alpaca and Mohair") used for skirt linings.

TWEED.—There are many varieties of tweed and homespun, which are always the production of a certain district, and represent the manner in which the inhabitants of that special district have from time immemorial been in the habit of turning the wool of each year's shearing into rough cloth for their own use. The name "homespun" is given to the rough fabric woven from yarn spun at home, which in the ordinary course of things would be made from the natural unbleached, undyed wool. The season's shearing, mixed without any regard to quality, colour, or texture, would be of every shade and variety of tone, and would naturally give to this yarn a mingled look, which it, in its turn, would impart to the fabric woven from it. The manufactured homespun yarn is spun and twisted in such a way that it comes out irregular and uneven from both processes, and the weaving is open and the finish as primitive as that of a home-made cloth would naturally be. Tweed and homespun are almost identical in appearance, both being either twilled or plain; and tweed, like the homespun, is made from a rough yarn of mingled tones, in which occasionally fine, bright-coloured threads are twisted. The yarn is harder-twisted, giving a more distinct twill, and it is generally more compact, less rough, and better finished in appearance. Both are made in wide single (28 to 30) and wide double (52 upwards) widths, but are also to be obtained in ordinary dress-material widths in the lighter makes.

TWILL (French).—Resembles fine twilled flannel which has been dyed dress colours, and milled and pressed to make it feel more compact than flannel.

VICUNA.—(See "Cloth.")

VICOGNE.—Cloth-like fabric, but softer, with a deep distinct twill and a downy feel resembling that of flannelette, the soft feel presumably given to it by a mixture of cotton with

vicuna wool. Sometimes has long hairs upon it, like camels' hair cloth—the latter, however, does not show the deep twill.

WINSEY.—Made from cotton and wool, and may be described as the Scotch counterpart of linsey, though perhaps a trifle softer in appearance and texture. It has the same general qualities of wear and appearance and lowness of price. Some very beautiful fabrics of this class are now made, closely resembling a very fine serge, but they have hardly yet come into general use.

WHIP-CORD (See "Serge.")—A variety of the worsted coating, the twill a smooth, well-raised cord, which always slants either more or less across the fabric than a true diagonal.

WOOLLEN CANVAS.—Properly, a coarsely-woven, plain fabric of hemp, copied in wool for a dress material (occasionally with fancy designs upon it). The cross-threads of a canvas can always be pushed apart.

COTTONS.

BATISTE.—Closely resembling lawn, but with a more wiry finish.

CAMBRIC.—An imitation in cotton of *linen cambric*, generally spotted or printed with a small set design.

CHAMBRAY.—A thick, strong, coarse zephyr.

COTTON CRAPE } —(See "Transparent Fabrics" and
COTTON CREPON } "Woollens.")

DELAINETTE (Cotton Delaine).—Cotton copy of *mousse-line-de-laine*, having all its characteristics of dull surface, floral designs, etc.

DIMITY.—Two varieties are used in dressmaking, generally for children's frocks. One has a fine raised hair-cord running with the selvedge upon it, and generally resembles a thin, soft piqué; the other has a raised diamond pattern or quilting. The latter is thicker and firmer. There are floral dimities, but they are only used for upholstery.

DRILL.—A very thick, hard, twilled cotton, dull face.

FLANNELETTE.—Cotton fabric woven and finished to imitate flannel. It is more easily crushed by pressure, and can be distinguished by its weight and thicker (downier) feel.

GALATEA (Ticking).—A strong, firm, striped cotton, generally blue-and-white stripe, woven in imitation of linen.

GINGHAM.—A firm, stout cotton, the yarn dyed before weaving, so that both sides are alike. It is smooth and close, and generally woven in checks or plaids which are the same size down as across, by reason of the warp and weft being of equal thicknesses. It will wash and wear well; is sometimes twilled in heavy makes.

JEAN.—A very thick, firm, twilled sateen. *Jeannette* is a thinner, finer, lighter make of jean.

LAWN.—A copy of linen lawn, close, fine, and soft-finished. It is generally used for the bodices and plain parts of embroidered robes.

MUSLIN.—A fine, thin cotton fabric, the threads (both warp and weft) being extremely fine and the weave always plain. *Indian muslin* is soft, thin, opaque and silky. *Mull muslin* is similar to Indian, fine and soft, but not silky. *Swiss muslin* has a hard finish, and is clear, or nearly transparent. *Book muslin* in finish and transparency resembles Swiss, but is less fine and more uneven in make. *Leno muslin* is exceedingly open and stiff. *Victoria lawn*, which is used for inside finishing for both bodice and skirt bottom edges, is a variety of book muslin. *Madras muslin* has a transparent ground and a pattern apparently darned upon it in thick, soft thread, quite different from the yarn used in weaving it. *Organdi muslin* is a soft, opaque, muslin, with a raised spot worked in afterwards with a different-coloured thicker thread. Some varieties of muslin—notably Madras—are tinted, but they are usually made in white only. Of course, in a fabric so popular as muslin, there must be a great variety. It is made in stripes, checks, and cords, and with the fine fabric of the muslin alternated with stripes of more open design, gauze, canvas, etc.

PIQUÉ.—A firm cotton fabric with a distinct raised rib running across from selvedge to selvedge; generally used in white only.

PRINT.—A well-known standard cotton fabric, with the colour printed or laid on the face only, not dyed through. Plain prints are seldom made; more usually a complicated design is laid on the face as well as the ground colour, making the matching a terror to the dressmaker. Print is generally

of the substance and hardness of ordinary calico, this being, in fact, the foundation on which the colours are laid.

SATEEN may be described as the satin of cotton goods. It has a bright glossy face and dull back, and is soft, thin, and pliable to the touch. It is sometimes printed in floral designs, but a printed sateen may be distinguished from print by the back, as the ground colour is dyed through, not simply laid on the face as in the latter. Sateen is both plain and twilled.

VELVETEEN.—(See page 173.)

ZEPHYR.—A lighter and finer make of gingham, thin, silky, and pliable, generally woven from coloured warp and a finer weft, which is either white or lighter in colour than the warp, and so gives a slightly streaky or shot appearance to the plain (or unpatterned) zephyr. Zephyr checks or plaids are never perfectly square, owing to the finer weft.

LINEN.

CAMBRIC AND LAWN.—Beautifully thin, close, linen fabrics, woven from very fine yarn, the lawn having a softer finish than the cambric, which is the fine linen generally used for pocket-handkerchiefs. These are very seldom used in dress-making, the cotton fabric of the same class being preferred. *Holland* is perhaps the linen fabric most used for dresses; it has all the distinctive qualities of linen, being cool, thin, and flat in the thread. It is generally used in a pale drab or whitey-brown shade, but linens of other colours are slowly establishing themselves in popular favour for summer dresses. *Silesia* should, strictly speaking, be a soft, thin, open, twilled linen; but it is now so universally made from cotton that the latter is accepted as its proper basis.

CHAPTER X

QUANTITY, COST, AND PRICE.

Average Width of Materials—How to Judge Quantities—Different Modes of Planning Out—Average Quantities for Bodice, Sleeves, Skirt, Collars, &c.—Calculations of Cost—Slow and Quick Workers—No Fixed Standard of Charges—Average Prices for Different Kinds of Dresses—Average Prices of Dress Materials—Inside Finishings for Bodice and Skirt.

Average Width of Materials.

Silk	{	18 to 22 inches wide; occasionally from 24 inches upwards in the more expensive qualities. Raw silk averages 27 to 36 inches wide.
Velvet	{	
Plush		
Poplins and Bengalines	{	24 to 27 inches wide.
Velveteen	{	
Cottons		
Prints... ..	{	27 to 32 " "
Ginghams		
Sateens	{	24 to 32 " "
Muslins		
Single - width Woollens (beige, delaine, etc.)	{	24 to 27 to 30 inches wide upwards.
Double-width Woollens ...	{	42 to 46 inches wide upwards.
Cloth, Tweeds, etc. (mantle cloth width) ...	{	52 to 56 inches wide.
Imperial Waterproofing (for skirts of bicycling, boating or climbing dresses)...	{	60 to 62 " "

It is usual to find thin or transparent fabrics wider than heavier goods made of the same fibre: thus cotton

muslin is generally wider than print, delaine than beige, and diaphanous silk fabrics (as chiffon) than velvet.

Any method of calculating quantity must, if it is to be of practical value, take changes of fashion into account; yet any one who has followed these changes round will have noted how little the total quantity of material required for the complete dress varies, standing as it does at from six to seven yards of double-width material forty-four inches wide, or twice that quantity of single-width if narrow, or a yard less, perhaps, if the single-width material is wider than half the double-width, as is generally the case.

There are styles and materials where careful planning and close cutting will considerably reduce this allowance, as there are others that exceed it: gored skirts of reversible materials, such as alpaca, come under the first head, and the same from rich fabrics with a large and bold design upon them (as brocaded velvet) under the second. In gored skirts, whether of print or brocade, cut from fabrics where there is a pattern, pile, nap, or sheen, one gore is upside down and inside out where only two side gores are cut; all can be made right side out if there are four gores (two at each side), but then those at one side will still be upside down, and where this cannot be admitted, owing to the pattern or the way of the cloth, the gores which cannot be used in the skirt must be utilised for the bodice and sleeves, where they cut to less advantage. It is therefore the established rule in dressmaking to plan off or cut out the skirt before the bodice.

It is of extreme practical value to the cutter to have a clear idea of how each part of the dress can be cut from material of a certain width, how much each part will take, and whether cuttings from one part can or cannot be utilised in the cutting out of the others. Stock cutters for wholesale houses are experts at such planning; they seem able to cut garments from incredibly small quantities of material, for by dint of long practice they have learned to lay the patterns

on the material to fill every hollow and to utilise every scrap of space. Every dressmaker, too, has her own way of placing the pattern on the lining to cut correctly, and yet from the smallest quantity of material.

Facility in judging quantities may be gained by cultivating the habit of measuring up the lining, stuff, etc., which has been planned out, and making a rough diagram showing the width and length, and how each part was obtained from the whole, and in a lesser degree by making model "lays" or diagrams. This may be done in the following manner :—

Tapes or rulers should be made to a reduced scale—say half an inch to the inch, or a quarter of an inch to the inch; the latter is the best scale for ordinary practice. The tapes or rulers can easily be made from strips of sectional paper gummed over tape; the lines already ruled on the sectional paper can then be inked and figured, either for the half or the quarter-inch scale.

By this tape or ruler a reduced pattern (bodice and sleeves) to an average set of measures should be drafted, the bottom edge shaped off to prevailing fashion—as round, pointed, box-pleated basque to back, etc.—and the model pattern cut out in thin cardboard or cartridge-paper, the proper allowance for turnings on the reduced scale being made upon it or not, according to the discretion of the worker.

Strips of paper or lining should be cut the width of the material they are intended to represent, and as many yards of such material allowed as it is calculated that a dress will require, width and length both being measured by the reduced scale tape or ruler, the scale being the same as that of the model bodice pattern. If it is meant for double-width stuff it should be folded and creased, and then the planning-out should be done upon it, the pieces of the model pattern being laid out for the bodice and sleeves and the lengths for the skirt marked off, gored, and otherwise

arranged exactly as would be done with a full-sized bodice pattern and the real material.

Different workers prefer different methods of planning out. Some open out all linings and fold over to the other end, spreading the pattern to fill up spaces and finally cutting the lining double; others place the pattern on the lining doubled as it is bought. The latter plan is perhaps less confusing, but each has its own advantages; and as long as the pieces are properly placed with regard to the way and thread of the material, and with full appreciation of the value of economical planning out, every good method has its own value.

The same holds good of the material; with double cutting there is less labour and time spent in the actual cutting out, and there is no risk of any of the pairs of pieces being cut both for one side of the garment, as there always is in single cutting, even when the planning has been very carefully done. Still, in planning out narrow single-width material, especially if the skirt is a gored one, there are little spaces that can be utilised if the pieces are laid on singly, and for practice in this kind of very close cutting, paper with a distinct right and wrong side may be cut double to represent the actual pieces of the lining, or pairs of models may be made, the back of each piece being marked to ensure that no two are laid on for one side of the bodice, and then the whole laid out singly on the paper representing the material. Lines should be drawn round the model for fitting-lines and also for turnings, and the spaces inside the outlines lightly shaded in to throw up the shape of each piece more clearly from the background. The habit of calculating by "lay" is one the most experienced cutter cannot afford to despise, and it is of inestimable value to the inexperienced.

If the cutter can readily judge the average quantity which bodice, sleeves and skirt will take, her rough mental calculation for a dress would run like this:—

*Plain Gored Skirt and Bodice from Serge, 27 inches Wide,
Reversible.*

Bodice and full sleeves...	...	...	about $2\frac{1}{2}$ yards.
Skirt (four lengths $1\frac{1}{4}$ yards long will give front breadth, four side gores, and one back breadth)	...	...	" 5 "
Hem or facing (five strips, each 7 inches deep)	...	...	" 1 "
Half-yard extra for margin on cut- ting	...	...	" $\frac{1}{2}$ "
About			9 yards.

Strips down from front breadth might help out the bodice, little if it is not long.

Or thus :—Calculation of quantity for a fashionable dress (1893).—Empire skirt would take three double widths about one and a-quarter yards each, including turnings and shaping off; pieces from wedges would give facings or inside hem for bottom edge, or an extra half-yard would give them six inches deep. Bodice and sleeves would take about one and a-half yards for an ordinary figure, but more for present fashion of full sleeves—say two yards. The margin on allowances would give shoulder-frills, vest, double-breasted fronts and revers, small zouave fronts, or other extra trimmings, as well as facings-up and facings-in for those parts of the dress that require it, such as the placket, the mouth of pocket, lining of habit backs, etc., For a small figure it might also give a flounce or band round the skirt, but for a larger one the extra material would require extra allowance.

Bodice, sleeves, and collar, with a margin for variety in style—as full front, fancy back, large sleeves or collar, etc.—can be cut for average figures from :

- $1\frac{1}{2}$ to 2 yards double-width dress stuff.
- 3 to $3\frac{1}{2}$ yards silk or rich stuffs.
- $2\frac{1}{4}$ to $2\frac{3}{4}$ single width woollen or cotton.

Average Quantities of Linings are :

1½ to 2 yards bodice lining, double width (38).

4½ yards skirt lining, single width (27).

3¾ yards skirt lining, double width (38).

From calculations of quantity we naturally proceed to calculations of cost, and here we come to the question of the basis on which such a calculation is to be made.

If the worker has to supply all the finishings beyond the outside material, linings and trimmings (as is generally the case), the cost of each item (even though trifling in itself, as a strip or two of muslin or a few hooks and eyes) must be considered, or she would be at a loss when these items are repeated in a large number of cases. On the other hand, the charge for "sundries" should be kept as low as it can, consistently with fashion's demands, or a feeling of dissatisfaction and distrust is created in the mind of the customer. Where the worker has only the value of her own labour to consider when settling what the cost of making is to be, it is simply a case of time and quality of work. Where there are workwomen, improvers, and apprentices to be paid, each according to the value of her work, and rent for city workrooms, etc., to be considered, the manager has a more complicated calculation to make, and buying in the best markets has to balance the increased working expenses. The latter consideration, however, need not be entered into in detail here.

The time used in making a dress varies ; some fashions may involve more labour than others, or the length of the working-day may differ, but two dresses per week is considered fair work for one unaided worker. Some can make a dress in a day, but good finish could hardly be expected with such rapid work, though a certain speed is correctly considered one of its elements. Slow workers seldom set in their stitches with the same beauty and regularity as quick ones ; it would seem that a certain speed is necessary before they can acquire that power, and with it comes a

lightness of hand which seems to hold the work without touching it; the fresh look of a bodice which has been lightly handled is certainly one of the items which both employer and worker take into strict account when considering finish.

Good sewing, good pressing, flat seams, well-finished ends and corners are expected with good work, and the employment of the finest finishings would be useless if the work put in did not match them in character.

Ready-made clothing, which is cut out in bulk and made up almost entirely by machine without preliminary tacking or such preparation, is quickly got through, and can hardly be regarded as skilled labour, or command the pay accorded to the latter. Hand-work takes more time, and so commands a better price, especially when skill has to be brought to bear upon it to produce a satisfactory finished effect; and the fit of the garment has also to be adapted to the individual wearer. Better pay is always expected for work on costly material, it being justly considered to require greater judgment, experience, and skill on the part of the worker, and these qualities having (in every trade) a distinct monetary value. Quality of work (style*, fit, and finish) on materials employed and time used are therefore the great price regulators.

Price of making is a little influenced by the style of dress chosen, being generally a little higher for elaborately trimmed dresses than for plainer ones. Many dress-makers refuse to recognise this, declaring that the plainer styles require much more careful making and finishing than fancy ones. Dresses of rich material, such as silk, velvet, lace, etc., generally command a higher price for making than woollens, and these again than cottons, which vary in cost of making according to the style chosen, ladies'

* Good style may be defined as the ability to select from the prevailing styles the one most suited to the material to be made up, and to the age and appearance of the wearer.

summer dresses costing nearly as much for making as their winter ones, whilst a servant's print gown is usually charged at a very low rate indeed. It is unfortunate for the average dressmaker that there is no fixed standard of price for making in the trade. She cannot say "The trade price is ——" The pay varies with the neighbourhood, the social position of the customers, and the necessities of the worker, a reputation for style and fit being no inconsiderable factor in the matter of the charges made by a well-established dressmaker, whilst a good worker with her connection yet to make may have to work for very much lower pay. This, however, is the same in every trade. The price paid for a servant's print gown varies from half-a-crown to seven shillings and sixpence, according to neighbourhood, three-and-sixpence to five shillings being the middle-class average, the latter price commanding good work and good finish.

A fashionably-made washing dress may vary in price from seven-and-sixpence to fifteen shillings, according to neighbourhood; nine-and-sixpence is a very fair middle-class average. Woollen dresses range within the same limits of price, but from ten-and-sixpence to seventeen-and-sixpence is the average, with a slight increase if the disposal of much rich trimming is included in the making.

Dresses of washing silk would come between the woollen and silk dress in scale of price.

Evening dresses, or those of rich material, generally command an average price of from fifteen to thirty shillings for making, one guinea being about the middle-class medium price. These prices cover labour only, all sundries being charged extra. Of course a dressmaker of established reputation and with a good connection can command prices considerably higher than those quoted above, and exclusive houses that make for a few special customers only, and reserve their designs for them, can almost name their own prices. The prices given represent the average

labour prices only, without reference to special advantages of any kind.

The quality and price of the linings, finishings, and trimmings should be proportioned to the cost of the dress material itself, cheaper ones being chosen for dresses of poor material than for those of better quality, and the price of making regulated in the same way. It would be absurd to line a dress made of cheap serge costing, say, ninepence the yard double width, with a lining costing ninepence the yard too, or to bind all the turnings with sarcenet ribbon and finish the front edges with lining silk. Cheap silesia or grey Oxford is good enough, and such a dress should be finished as inexpensively as possible (the turnings overcast and facings of the stuff itself used), good inside finishings being as unsuitable as expensive outside trimmings would be with a dress of this class. Some general rules for proportioning the cost of finishings to that of the outside material may here be given.

Average Prices of Dress Materials, etc.—Manufactured silks for dresses, four shillings upwards (about five shillings and sixpence, if good wear is to be expected); trimming silks, three shillings and sixpence upwards; soft washing silks, two shillings upwards. Velveteen, though only a cotton fabric, can hardly be procured of fair quality under two shillings per yard. Silk velvet averages seven shillings and sixpence to ten shillings and sixpence per yard. Medium quality double-width woollens average two shillings and sixpence to three shillings and sixpence, rising to five shillings and sixpence. Heavier wide width (56 inches), five shillings and sixpence upwards. Single-width, from one shilling and fourpence upwards. Mixtures, as Henrietta cloth, poplin, etc., four shillings per yard upwards. Ordinary cottons, prints, sateens, ginghams, etc., fourpence halfpenny to tenpence, sixpence halfpenny being average. Finer cottons (either fashionable or delicate fabrics), up to one shilling and sixpence per yard. (Very fine muslins rise considerably

above this.) Cotton bodice-lining, threepence halfpenny to sixpence halfpenny to tenpence per yard upwards. Linen lining, one shilling upwards. Silk lining (silk width), two shillings and sixpence upwards.

Cotton, alpaca, linenette, and glazed skirt linings average sixpence to ninepence per yard. Coloured linens cost little more than cotton. Silk linings average two shillings and sixpence per yard upwards.

Bodice and skirt linings for average woollen stuffs (middle-class quality, two shillings to three shillings and sixpence per yard double width) should run about one-sixth to one-quarter of the price per yard of the outside material. Silk linings about one-third the price of the outside silk. Trimming of silk, satin, or velvet for woollens, once and a-half to twice the price per yard of the outside material. Buttons (per dozen) about half the price of the stuff per yard. Average cost of making an ordinary cotton or woollen dress would be about the same as cost of material without linings, finishings, fastenings, or trimmings. For rich stuffs this would not hold good; about half the cost should be fair pay.

Low-class bodices would be lined with cheap silesia, the fronts, bottom edges of sleeves and bodice, and inside of collar faced with narrow strips of the dress stuff on the cross, the inside seams machined down, pinked out, or whipped; cheap cased bones tacked in.

Medium-class, lined with good twill, faced and turned up with deep facings of sarcenet, Paris binding bone casings, French horn for boning; the seams overcast or bound with cheap sarcenet ribbon.

High-class, lined with silk; seams scalloped and bound with fine sarcenet, finished with fine sarcenet or silk; bone casings fine sarcenet; fine thin whalebone.

Tailor-made bodices, interlined with fine French canvas or firm muslin and lined with Italian cloth or silk, all seams between; the wadding machined to the lining; the fronts

further stiffened under the button-holes with firm linen; button-holes on left front and with rounded ends; deep facings of silk.

Washing dresses of any class are faced and turned up with the outside material.

Low-class skirts, lined with common silesia or glazed lining, narrow facings on the straight pleated in (sometimes made of the lining only, instead of the stuff), bottom braid machined on with the same; common webbing for the belt; seams whipped or simply scalloped out.

Medium-class skirts, lined with linenette, sateen, or cheap alpaca; deep shaped facings of outside stuff; good quality belting; bottom braid doubled and machined through or hemmed up by hand; seams overcast, bound, or made between.

High-class skirts, lined with fine alpaca, polonaise, or silk; deep facings of the stuff shaped and hemmed up by hand; silk belting; bottom braid or velvet binding run on face and turned over bottom edge, and carefully hemmed or slip-stitched up; seams bound or made up to come between.

Tailor-made skirts, much the same, but linings made separately so that seams come between; pocket and placket openings strengthened by strips of linen or canvas and pocket dropped between skirt and lining.

Washing-dress skirt linings should be made separately wherever it is impossible to avoid having a lining altogether.

A list of the materials generally used in finishing is sub-joined, those marked by a star being at present out of use. Quantities are placed against those that vary but little, but such quantities can only be approximate, changes of style making a difference here and there that must be duly taken into account.

Inside Finishings for Bodice.—Lining, $1\frac{1}{2}$ to 2 yards. Wadding, $\frac{1}{4}$ to $\frac{1}{2}$ yard. Tacking cotton. French canvas or firm linen for front edges, $\frac{1}{8}$ yard. *Piping cord. Mull muslin for interlining, $1\frac{1}{2}$ yards. Machine cotton (2 reels),

3d. worth; machine silk (1 reel or less), 6d. worth. China or sarcenet ribbon for binding seams (bodice and sleeves), 12 to 18 yards. Paris binding or galloon† (for bone casings and to go under buttons, to bind in sleeves, hangers, etc.): an average of 2 yards for neatening-in sleeves, going under fronts and making hangers, and 4 yards for bone casings may be allowed. Muslin for bottom edges of bodice and sleeves, $\frac{1}{2}$ yard. Lining silk for bodice finishing, $\frac{1}{2}$ yard; or ribbon, $1\frac{1}{2}$ inches wide, 3 yards. Button-hole twist, 1 yard for each button-hole, $\frac{1}{2}$ yard for each eyelet-hole. Buttons, an average of 2 dozen. Whalebone or substitute: an average of $\frac{1}{4}$ yard whalebone for each seam. Buckram or stiff muslin for collar, $\frac{1}{2}$ yard. Hooks and eyes for collar, 2 of each; for belt, 2 of each; for fastening skirt to bodice, 2 of each. Belting for bodice, $\frac{3}{4}$ yard. Buckle for belt, 1. *Weights for points of bodice, 2. Preservers, 1 pair.

Inside Finishings for Skirt.—Skirt lining, 3 lengths of double-width or 4 of single (or $3\frac{1}{2}$ to 4 yards double or 5 single). Muslin, stiff or soft, for interlining, about 4 lengths or 5 yards. Horse-hair (hair-cloth), for stiffening the hem, about 2 yards, but varies with width of skirt. Tape or elastic for setting the back gathers, 12 inches. Ribbon or belting for waist, $\frac{3}{4}$ yard. Piping cord for cording waist, 1 yard. Hooks and eyes for fastening belt, 3 of each; for fastening placket, 1 of each; for attaching skirt to bodice, 1 or 2 of each. Bottom braid or velvet binding, 3 to 4 yards. *Broad tape for slots, 1 yard for each slot; *narrow tape for runners, 1 yard for each runner; *Muslin and tape for lining and taping stiffened kilts (vary with style). *Steels for setting out the back breadths (vary with style).

† Paris binding, Prussian binding, flannel-binding, galloon, ferretting, etc., are different names for bindings differing so slightly that they may practically be counted the same thing, and any one of them used as galloon at the worker's discretion.

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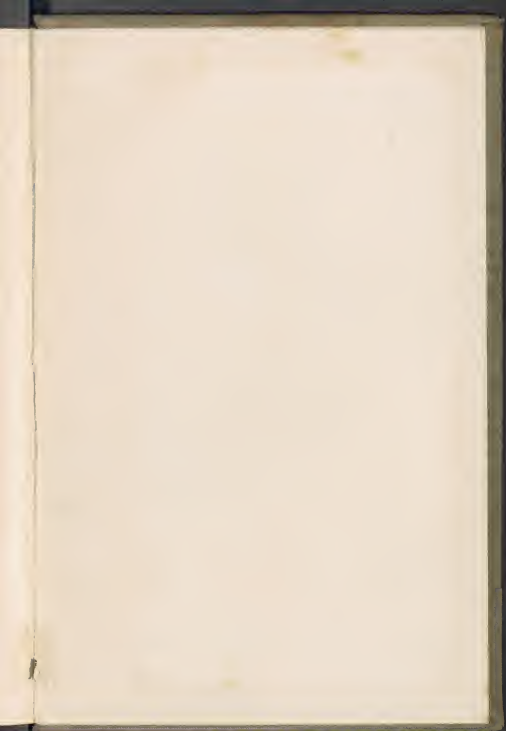
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