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## The

 American Pattern Grader$\mathcal{A}$ Complete, Practical, Up-to-Date Work on the Grading of Patterns for MEN'S GARMENTS

The Use of BlockPatterns
Alterations and How to Srake
Them
By SAMUEL REGAL

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Introduction
DAPER in his "Intellectual Advancement of Civilization" says: "Individual advancement is the model for social progress." Nowhere is the truth of this to be found so fully realized as in these United States, where individual advancement is marked in every avenue of life. "Excelsior" is inscribed on the banner of every man and woman, borme onward and forward through the rush and crush, through the whirlpools and fast flowing streams of life's kaleidoscopic changes, ever reaching higher and higher and becoming more and more and still more perfect in their particular sphere and in their own individual calling.

For twenty-five years the author has devoted his time to the careful study of every subject applicable to the publication of this work, and has arranged this volume in such a manner that anyone of average intelligence can master this method with the employment of proper care and necessary diligence.

The student will find the system of Grading herein expounded simple and entirely free from complication. All which might have a tendency to mislead the student, has been eliminated so that every line drawn and applied may be easily grasped and perfectly understood.

## Preface

IN publishing the AMERICAN PATTERN GRADER, it is not the purpose of the author in any way particularly to advocate cutting by proportion in spite of the fact that he considers the knowledge of this art indispensable to him who proclaims himself a competent cutter and wishes to be considered so by his fellow workers.

It is and always will be, the wisest and best method to adopt drafting to measure where this is possible. In other words, the cutter who has the time to devote to each individual and is remunerated adequately for such services should never cut but by special measure. For the cutter, however, who is engaged in wholesale tailoring work or such work where prices are of a nature necessitating quick results, drafting by proportion, popularly known as "The Use of Block Patterns," becomes a necessity.

In order to thoroughly master the art of using block patterns, it becomes necessary first to learn how to grade, as the former is the result of the latter. In the lessons following this page, it will be found that the grade is started from a single pattern which is utilized for all sizes and when once made, is the basis for the making of block patterns.

In this volume, the author has aimed to put the art of using block patterns as plainly as possible to the student, and it is his firm belief that anyone who is conversant with cutting can easily follow the lessons given herein.

In order to facilitate the work of the man who is compelled to employ this method of cutting, a most complete course of instructions in the making of alterations is added. These alterations have all been practically tested and are the result of twenty-five years of actual practice during which period not the least time was given to the careful study of the necessities and requirements of altering garments encountered daily under various conditions.

# TABLE OF PROPORTIONS <br> FOR 

BOYS AND YOUTHS

| COATS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE | BREAST | WAIST | HIP | WAIST <br> LENGTH | $\begin{gathered} \text { FULL } \\ \text { LENGTH } \end{gathered}$ | SLEEVE | WRIST |
|  |  | 23 23 $23 / 2$ 24 $241 / 2$ 25 $251 / 2$ 266 $261 / 2$ 2771 278 $281 / 2$ $281 / 2$ $291 / 2$ 30 31 32 |  |  |  |  |  |

## TROUSERS

| AGE | BOYS' <br> VESTS | RISE | LENGTH | WAIST | SEAT | KNEE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{r} 4 \\ 5 \\ 5 \\ 6 \\ 7 \\ 8 \\ 9 \\ 10 \\ 11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16 \\ 17 \\ 18 \\ 19 \end{array}$ |  |  |  |  |  |  |

The short measures for the table of proportions for children's clothing are as follows: Scye dəpth, $1 / 4$ breast : strap, $1 / 3$ breast plus $3 / 4 \mathrm{inch}$; blade, $2 / 3$ breast plus $1 / 2 \mathrm{inch}$.

Make no extra additions, as all allowances have been made.

# TABLE OF PROPORTIONS FROM <br> NORMALS TO STOUTS 

| COAT |  |  |  |  | VEST | TROUSERS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BREAST | WAIST | HIP | SLEEVE | $\underset{\text { LENGTHS }}{\text { COAT }}$ | $\underset{\text { VESGT }}{\text { VESGS }}$ | RISE | WAIST | SEAT |
| 34 35 36 37 37 39 39 40 41 42 43 44 45 46 47 48 49 50 |  | $\begin{aligned} & 36 \\ & 37 \\ & 38 \\ & 39 \\ & 40 \\ & 41 \\ & 42 \\ & 43 \\ & 44 \\ & 45 \\ & 46 \\ & 47 \\ & 48 \\ & 49 \\ & 40 \\ & 51 \\ & 51 \end{aligned}$ |  | ${ }_{30}^{30}$ <br> $301 / 2$ <br> 3014 31 <br> 3114 $311 / 2$ $31 / 4$ 32 3224 323 324 33 3314 $331 / 2$ $\stackrel{33}{34}$ |  |  |  | 35 36 36 37 38 39 40 41 42 43 44 4.5 46 47 48 49 50 51 |

TABLE OF PROPORTIONS
FROM
STOUT TO CORPULENTS

| COATS |  |  | TROUSERS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BREAST | WAIST | HIP | WAIST | HIP | SEAT | RISE |
| 38 <br> 39 <br> 30 <br> 40 <br> 41 <br> 42 <br> 43 <br> 44 <br> 45 <br> 46 <br> 47 <br> 48 <br> 49 <br> 50 <br> 51 <br> 52 <br> 63 <br> 54 |  | 41 49 43 44 4. 46 47 48 49 50 51 59 53 54 51 56 57 |  |  |  | $\begin{aligned} & 10 \\ & 101 / 4 \\ & 101 / 2 \\ & 101 / 4 \\ & 11 \\ & 111 / 4 \\ & 111 / 2 \\ & 113 / 4 \\ & 12 \\ & 121 / 4 \\ & 121 / 2 \\ & 121 / 4 \\ & 13 \\ & 1311 / 6 \\ & 131 / 4 \\ & 133 / 3 \\ & 131 / 2 \end{aligned}$ |

TABLE OF PROPORTIONS FOR SHORT MEASURES BY HEIGHT AND BREASTS

| Brea | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | Breast |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Height$5-4$ | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | Waris lendth |
|  | 81／9 | 83／8 | $81 / 2$ | $8{ }^{5 / 8}$ | $8^{3 / 4}$ | 8\％／8 | 9 | 91／8 | 91／1／4 | $93 / 8$ | 91／2． | $9^{\frac{5}{8}}$ | 93／4． | 97／8 | 10 | 101／8 | 101／4 | Scye |
|  | 10 | $11^{1 / 8}$ | 111／3 | 111／2 | 113／4 | 12 | 121／8 | 12\％${ }^{3}$ | 125\％ | 123／4 | 13 | 131／4 | $13^{3 / 8}$ |  | 137 | 14 | 147／4 | St |
|  | 15\％ | 15\％ | $16^{1 / 8}$ | $16^{3 / 8}$ | $16^{3 / 4}$ | $17 / 18$ | $17^{3 / 8}$ | $17^{5 / 8}$ | 177／8 | 181／4 | 181／2 | 187／8 | 191／8 | 193／8 | 193／4 | 20 | 20\％ | melde |
| 5－5 | 16／4 | $16^{1 / 4}$ | $16^{1 / 4}$ | $16^{1 / 4}$ | 16 | 16 傀 | 161／4 | $16^{1 / 4}$ | 161／4 | $16^{1 / 1} 1$ | 161／4 |  | $16^{1 / 4}$ | $6^{1 / 4}$ | $16^{1 / 4}$ | 161／4 |  | Maris |
|  | $83 / 8$ | 81／2 | $85 / 8$ | 83／4 | $87 / 8$ | 9 | 91／8 | 91／4 | 93／8 | 91／2 | 95／8 | 93／4 | 97／8 | 10 | 101／8 | 101／4， | $10^{3 / 8}$ | sye |
|  | 11 | 11／1／4 | 111／2 | 112／3 | 1178 | 121／8 | 127／4 | 121／2 | 123／4 | 2 | 131／8 | 13 |  | ， | 14 | 1 | $3 / 8$ | Strap |
|  | 153／4 | 16 | 161／4 | 16\％ | 16\％／8 | 171／1 | 171／2 | $173 \%$ | 18 | $183 / 5$ | 185／8 | 19 | 191／4 |  | 19\％／8 | 20／8 |  | Aerstoubler |
| 5－6 | $16^{1 / 2}$ | 161／2 | $16^{1 / 2}$ |  | 161／2 |  |  | 161／2 | 16 | 1612 | 16\％ | 1 | 10\％ |  |  | 16 |  | Waistlength |
|  | 81／2 | 85／8 | $83 / 14$ | $8^{7 / 8}$ | 9 | 91／8 | $9^{1 / 1 / 4}$ | $9^{3 / 8}$ | 91／ | 95 | 93 | 78 | 10 |  | \％／4 | 10.38 | 101／2 | Scye |
|  | 111／8 | 113／8 | $15^{5} / 8$ | 113／4 | 12 | 121／4 | 1238 | $12^{5 / 8}$ | 1278 | 13 | 3 |  |  |  |  | $14^{1 / 4}$ | 14／2 | Strap |
|  | 15\％／8 | $16^{1 / 8}$ | $10 \%$ | 析 | 17 | 173／8 | 1758 | $17^{7} 8$ | 181／8 | 181／2 | 183\％ | 保 | $1{ }^{3 / 8}$ | 195\％ |  | 20／4 | 20\％ | DVerstoutlder |
| 5－7 | 163／4 | $16^{3 / 4}$ | $16^{3} / 4$ | $16^{3} / 4$ | 1634 | $16^{3} 4$ | $16^{3} /$ | 16\％ | $16^{3} /$ | $16^{3}$ | $16^{3}$ | 16 | 16 | 16 | 16 | $16^{3}$ | $16^{3 / 3}$ | Waistlength |
|  | $8 \frac{5}{8}$ | $8{ }^{3 / 14}$ | 87／8 | 9 | 91／8 | 9 $1 / 1 / 2$ | $9^{3 / 8}$ | 91／2 | 95／8 | 93／4 | 97／8 | 10 | 10／8 | 10 |  |  | $10^{5 / 8}$ | Scye |
|  | 111／9 | 111／2 | 112／3 | $11 \%$ | 121／8 | 121／3 | 121／2 | 123／4 | 13 | 13／8 | 13\％ | 135／8 | 133 | 18 |  |  | 1458 | ap |
|  | 16 | 161／4 | 16／2 | $16 \%$ | $17^{1 / 8}$ | 171／2 | $17^{3 / 4}$ | 18 | 181／4 | $185 / 8$ | $18^{78}$ | \％ | 191／2 | 193／4 | 20 | $0^{3}$ | 0\％ | Diesthoulder |
| 5－8 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | Waisllendth |
|  | $83 / 4$ | 87／8 | 9 | $9^{1 / 8}$ | 91／4 | 93／8 | 91／2 | 95／8． | 93／4 | 9\％／8 | 10 | 10＇s | 101／4 | $10^{3 / 8}$ | 1012 | 10\％ | $10^{3 / 4}$ | Scye |
|  | 113／8 | 115／8 | 117／8 | 12 | 121／4 | 12 | $12^{2}$ | 12\％ | 131／8 | 131／4 | 13 |  | $13 \%$ | 14／8 | 14．3／8 |  | $14^{3} / 4$ | Strap |
|  | 161／8 | $16^{3 / 8}$ | 163／4 | 17 | 171／4 | 析 | 177／8 | 18／8 | $183 / 8$ |  |  |  | 105 | 19\％／ | $20^{\prime \prime} /$ | 20 | $20^{3}$ | Derestoulder |
| 5－9 | 171／4 | $171 / 4$ | 171／4 | 171／4 | 171／4 | 17 I／4 | 171／4 | 171／4 | 17／4／1010 | 14／1／4 | $17^{1 / 4}$ | 寺 |  |  | $17^{1 / 4}$ | 17 | 17／3／ | Waist length |
|  | $87 / 8$ | 9 | 91／8 | 91／4． | $93 / 8$ | 91／2 | 95／8 | $93 / 4$ | 97／8 | 10 |  | $01 / 4$ | 10 |  |  | O | 107／8 | Scye |
|  | 111／2 | 113／4 | 12 | 121／8 | 123／8 |  | 123／4 | 13 | $131 / 1$ | 1338 |  |  |  |  |  |  | $14 \%$ | Strap |
|  | 161／4 | 161／2 | 16\％／8 | 77／8 | $1733 /$ | 173／4 | 18 | 181／4 | 18\％／ | 1878 | 19 | 1／2 | 19 | 20 | $20^{3} 8$ | 20\％\％ | 20\％ | Presthoulder |
| 5－10 | 171／2 | 171／2 | 171／2 | 171／2 | 171／2 | 17\％／2 | 171／2 | 1712 | 171／2 | 171／2 | 1\％\％ | $17 \%$ | 17 | 17／2 | $17 / 2$ | 17\％ | 17 |  |
|  | 9 | 91／8 | 911／4 | $9{ }^{3 / 8}$ | 91／2 | 95／8 | $9^{3 / 1}$ | 97／8 | 10 | 10\％ |  |  |  |  |  | 10\％ | 11 | Scye |
|  | 115\％ | 11\％ | 121／8 | 121／4 | 121／2 | 12\％ | 12\％ | $13 / 8$ | 131／3 | 13\％ |  |  |  |  | $14 \%$ | $143 / 3$ | 15 | Strap |
|  | $16^{3 / 8}$ | 165 | 17 | 171／4 | $17^{1 / 2}$ | 17\％ | $181 / 8$ | $18^{3 / 8}$ | 185 | 19 |  | 19.5 | 19\％ |  | 201／2 | 203\％ | 21 | Derestrowldr |
| 5－11 | $17^{3 / 4} / 1$ | $17^{3 / 4}$ | $173 / 4$ | 173／4／ | $1{ }^{17 \%}$ | $143 \%$ | 1734 | 1733 | 173／1 | $17^{3} / 4$ |  |  | $17^{3}$ |  |  | 173 | ＋ | WCais lenth |
|  | 91／8 | 91／4 | 93／8． | 91／2 | 9\％\％ | 914 | 97／8 | 10 | 10\％ | 10\％／1／ | $10^{3} / 8$ | 10\％ | 10\％ | $10^{3}$ | 10\％ | 11 | 11\％／8 | Scye |
|  | 113／4 | 12 | 121／4 | $123 / 5$ | 12\％／8 | 123／4 | 13 | 131／1／ | $13^{3} /$ |  |  | 14／818 | 14／1／4 | 14／2 | 143／3 | $14 / 7 /$ | 15\％ | Strap |
|  | 16／2 | $16^{3 / 4}$ | 17\％ | $1733 / 1$ | 175／8 | 18 | 181／4 | 18／2 | 183／4 | 19\％ | 19\％ | 193／4 | 促 | 20\％ | 20\％ | 20\％／8 | 21／8 | terestoubler |
| 6－0 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | Waistlength |
|  | 91／4 | 9 ${ }^{3 / 8}$ | 91／2． | 95／8 | 93／4 | 9\％／8 | 10 | 10\％ | $10^{1 / 4}$ | 103\％ | $10 \%$ |  | $1{ }^{3}$ | 10\％\％ | 11 | 11／8 | 111／3 | Scye |
|  | $117 / 8$ | 121／8 | 1213 | 121／2 | 123\％ | 12\％ | 13\％ | $13 \%$ |  |  | 14 |  |  |  | 14\％ | 15 | 15\％ | Strap |
|  | $16^{5 / 5}$ | $16^{7 / 8}$ | $171 / 4$ | 17／2 | 17314 | 181／8 | $18^{3 / 8}$ | $185 / 8$ | 18\％／8 | 191／4 | 19\％ | 19\％ | 20＇s | 20\％ | $0^{3,1}$ | 21 | $21 \% 13$ | Oershoubler |



## How to Grade a Sack Coat from a Single Pattern

The principle of grading sack coats is the same in all cases, whether the coat be single or double breasted. The idea is to distribute the increase in the larger patterns or the decrease in the smaller patterns in such a way that the backpart and front part will each receive their respective share. The sizes (meaning the breast measurements) are increased or decreased by an inch for each size, which leaves the pattern to be increased or decreased $1 / 2$ inch, and is distributed in the following manner: $1 / 4$ inch at the front edge and $1 / 4$ inch at the side seam, which makes the $1 / 2$ inch double or I inch. The $1 / 4$ inch at the side seam is divided in halves, which gives $1 / 8$ inch to the side of the forepart and the other $1 / 8$ inch to the side of the backpart. This latter $1 / 8$ inch is also added or deducted from the width of the back, thereby increasing or decreasing the shoulder width.

The scye depth is increased or decreased $1 / 6$ inch for every size. If all men were of the same height and the increase or decrease were in the breast and waist measures only, the scye depth would increase or decrease $1 / 8$ inch for every size, but as the majority of men range in height from 5 feet 5 inches to 5 feet 9 inches, we must cut patterns for the majority, or as men are; so beginning with a 38 breast coat for a man of normal height, and decreasing $1 / 6$ inch down to 33 , the 33 pattern will give a proportionate measurement for a man 5 feet 5 inches in height, and increasing $1 / 6$ inch up to 44 will make the 44 scye depth proportionate for a man 5 feet 9 inches in height, thereby striking the average.

## How to Grade from a Single Pattern

In grading from a single pattern it is necessary' to observe two rules:
First, be sure to have the breast and waist lines marked on the pattern; second, always use a medium size pattern, neither too large nor too small. A 38 breast is a good size, and from it you may first grade down to 33 and then up to 43 or 44 .

This grade is made from a 38 breast pattern and graded down to 33 .

## THE BACKPART.

Copy the 38 backpart on a sheet of stiff paper, mark the breast and waist lines and proceed as follows:

From A to B is $1 / 6$ inch for every inch the pattern is to be reduced, in this case $5 / 6$ inch; square forward from B and make the distance from B to $\mathrm{I}, \mathrm{I} / 6$ of 33 breast.

From I to 2 is $5 / 8$ inch.
From D to C is the same distance as from A to B. This will reduce each pattern $1 / 3$ inch in length or you can make the length of the 33 backpart from $B$ to $C$ according to your judgment.

From E to F is $1 / 8$ inch for every inch reduction, and from G to H is the same.
Place the side seam of the original 38 backpart to points $\mathrm{H}-\mathrm{F}$ and mark from 3 to H and from H through F to J .

From 4 to 3 is the same distance as from A to B, which is $5 / 6$ inch; place the top of back pattern to points $B-2$ and trace it, and do the same from 2 to 3 .

Now draw lines from 2 to 5,3 to $4, \mathrm{H}$ to G and from J to I; divide all spaces indicated into five equal parts, after which cut out the graded backpart and number each division to avoid mistakes.

## THE FOREPART.

Copy the 38 forepart on a sheet of paper and mark the breast and waist lines.
Ascertain the distance from O to P by sixths, $i$. e., the distance may be $1 / 6$ of the breast or $1 / 6$ plus $1 / 4$ inch, or $1 / 6$ less $1 / 4$ inch, in either case the shoulder point on the 33 pattern should be proportionately the same distance from O as the 38 pattern.

For instance, if the distance from O to P on the 38 pattern is $1 / 6$ of 38 breast plus $1 / 4$ inch, then the distance from $O$ to $Q$ should be $1 / 6$ of 33 breast plus $1 / 4$ inch; square up from $Q$.

Now reduce the front edge from L to $\mathrm{K}, 1 / 4$ inch for every inch, in this case 5 quarter inches.

From M to N is the same as from L to K ; place the original pattern, breast line on breast line, the front edge to touch points $\mathrm{N}-\mathrm{K}$, and trace the edge from Y through $\mathrm{K}-\mathrm{N}-\mathrm{II}$ and $\mathrm{I}_{3}$.

From 7 to 6 is $1 / 8$ inch for every inch reduction; from 9 to 8 and W to X are the same; place the side of the forepart to points $6-8$ and trace the side from 6 through 8 to X ; from X to V is the same as from C to D on backpart; 14 to 15 is the same.

Trace the side seam and bottom of forepart with the original pattern.
Measure from R to T $5 / 6$ inch or the same as from A to B on backpart; from 17 to 16 is the same as from T to star, and from 18 to 19 is the same; from $T$ to 19 is $3 / 8$ inch less than from 2 to 3 on the small backpart.

Ascertain the height of neck by eighths, i.e., from $R$ to $S$ in this case is $1 / 8$ of 38 breast plus $1 / 2$ inch.

Make the distance from $T$ to $U 1 / 8$ of 33 breast plus $1 / 2$ inch ; square forwards from $U$.
Now trace out the gorge, shoulder and armscye with the original pattern.
Draw lines from Y to $Z, T$ to R, 18 to 19,7 to $6, V$ to $W$, io to $I I$ and $I 2$ to $I_{3}$, and as many additional lines as will ensure perfect lines on the graded patterns, and divide each line into five equal parts.

The pockets are marked as follows:
From 38 to 33 is half the distance of C to D on backpart ; decrease the size of pockets on the 33 pattern according to your judgment, and draw lines, from 38 to 33 , each side of the pocket.

All points of division must now be numbered according to their respective sizes, and this partigftithe grade is then completed.

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DIAGRAM I.

The grading from 38 to 33 breast being completed, we will now proceed to make the increase from 38 to 43 breast.

Place the graded backpart on a paper, and mark around it; extend all the grade lines as from B to A; 2 to 5,3 to $4, H$ to $G, J$ to $I$ and $C$ to D.

At B-A add the same amount from 38 to 43 as the decrease was from 38 to 33 , which is $1 / 6$ inch for every size.

At $2-5$ add in the same proportion, $i$. $c$., whatever the decrease was from 38 to 33 , make the same increase from 38 to 43 breast. Increase at all grading points in the same way, adding at each point the same amount per size as the decrease was from $3^{8}$ to 33 .

## THE FOREPART,

Place the graded forepart on a paper and mark around it.
Extend all the grading lines as from 19 to 18 , 16 to 17 , $T$ to R, 23 to 22,25 to 24 , Y to Z, K to L, M to N, if to 10,13 to 12,15 to $14, \mathrm{~V}$ to W and 6 to 7 .

At K-L add $1 / 4$ inch for every inch; at line $\mathrm{M}-\mathrm{N}$, which is the waist line, add $5-16$ inch for every inch, which will make the sizes as follows:

| Breast. | Waist. |
| :---: | :---: |
| 38 | $341 / 2$ |
| 39 | 353/4 |
| 40 | . 37 |
| 41 | . $381 / 4$ |
| 42 | . $391 / 2$ |
| 43 | . $403 / 4$ |
|  |  |

At $11-10$ and 13-12, add the same as at $\mathrm{M}-\mathrm{N}$.
At all other grading points, add from the 38 to 43 breast in the same proportion as the reduction was from 38 to 33 ; number the various sizes and proceed to cut out the patterns.

Beginning with the 39 breast, mark around the lower part of armscye, prick through all points marked 39 and trace out with the next smaller pattern, which is the 38 size,


DIAGRAM 2.

## How to Grade a Stout Sack Coat from a Single Pattern

The principle of grading the stout coats is the same as that governing the normal coat, except that the pattern to grade from must be of larger size.

For instance, the stout sets are made to run in sizes from 38 to 48 breast measure. A 42 would therefore be a good size to grade from.

Now proceed as follows:
Place the backpart of a 42 stout on a stiff paper and mark around it; also mark the breast and waist lines.

Measure from 17 to $17,1 / 8$ inch for every inch reduction, which in this case is $5 / 8$ inch, or the difference between 42 and 38 .

From 15 to 15 is the same, $5 / 8$ inch.
Now place the back pattern to points $15-17$ and mark as from 12 through $13,14,15$ and I6 to 17.

From io to 10 is $1 / 6$ inch for every inch reduction, which is $5 / 6$.
Square out from the lower point io and make the distance from io to $11,1 / 6$ of 38 breast ; square up from II, $5 / 8$ inch.

From 12 to 12 is the same as from 10 to 10 ; place the pattern to points 11 - 10 and $11-12$ and shape the 38 back.

Now draw lines from II to II, 12 to 12, I3 to 13 and 14 to 14 :
Divide all the points as marked into five equal parts and number them.

## THE FOREPART.

Place the forepart on a paper and mark around it; also mark the breast and waist lines.
Reduce from 27 to $27,1 / 8$ inch for each inch; from 29 to 29 is the same as from 27 to 27 ; place your pattern to points $27-29$ and shape the side seam of the smaller size forepart.

From 23 to 23 reduce the forepart $1 / 4$ inch for every inch, and from 24 to 24 reduce the same.

Now place the pattern, the front edge to touch at the inner line $23-24$ and shape the front edge of the smaller coat as from 22 through $23,24,25$ and 26 .

Ascertain the distance from 32 to 33 or the neck point of the large pattern by sixths, $i$. $\ell$, it may be $1 / 6$ of the breast, or $1 / 6$ plus $1 / 4$ inch or $1 / 6$ less $1 / 4$ inch, and whatever the distance is give the same proportion to the small coat. In other words, if the distance from 32 to 33 is $1 / 6$ of 42 breast, make the distance from 32 to $341 / 6$ of 38 breast and square up from 34 .

From 20 to 20 is $1 / 6$ inch for each size, or the same distance as from to to 10 on backpart. From 19 to 19 and 18 to 18 are the same as from 20 to 20 ; measure the small backpart from II to 12 and make the small forepart from 20 to $18,1 / 4$ inch less.

From 20 to 35 on large pattern is $1 / 8$ of 42 breast plus $1 / 2$ inch; from 20 to 36 on small pattern is $1 / 8$ of 38 plus $1 / 2$ inch.

Now connect all points as shown and divide each space into five equal parts. All divisions must be numbered and the patterns cut out the same as explained before.


DIAGRAM 3.

## How to Grade a Stout Sack Coat from a Single Pattern

## Continued

The reduction in the patterns having been made, we will now increase the sizes from 42 to 46 inches.

## THE BACKPART.

Place the graded backpart on a sheet of paper and mark around it; also mark the breast and waist lines.

Extend all the grade lines from the original grade as shown from io up, from in up, from 12 up, from 13 out, from 14 out, from 15,16 and 17 out.

Increase the back height from the 42 grade up the same amount as the decrease was made from 42 down to 38 , which is $1 / 6$ inch for every inch.

Increase each size at in the same amount as the decrease was from 42.
Increase at points $12,13,14,15,16$ and 17 the same amount as the grade was decreased from 42 to 38 , which is $1 / 8$ inch for every inch.

## THE FOREPART.

Copy the graded forepart on a paper ; mark the breast and waist lines.
Extend all the grade lines as shown and proceed as follows:
Add at the breast point $23,1 / 4$ inch for every inch increase.
Add at points 24,25 and 26,5 -16 inch or $1 / 4$ and $\frac{1}{16}$ inch for every inch. This will increase waist size as follows:

| Breast. | Waist. |
| :---: | :---: |
| 42 | . 42 |
| 43 | . $43^{1 / 4}$ |
| 44 | . $44^{1 / 2}$ |
| 45 | . $453 / 4$ |
| 46 | . 47 |

Make the increase at 22 the same as the decrease was below 42, and increase proportionately at all grading points the same space per size as the decrease was from 42 to 38 .

Number all spaces as before and, beginning with 43 size, trace it out with the 42 pattern and so on, always tracing each pattern with the next smaller size.


DIAGRAM 4.

## How to Grade a Double-Breasted Sack Coat from a Single Pattern

This grade is made in the same way as the single breasted grade, but will describe it so as to avoid referring back to the first grade.

This pattern is for a 38 breast coat, and is graded down to 33 inches breast.

## THE BACKPART.

Copy the backpart on a sheet of paper and proceed as follows:
From A to A is $1 / 6$ inch for every inch.
$B$ is half scye depth of the small back. Square forward from A for the small backpart, and make the distance from A to E $1 / 6$ of 33 breast. Go up from E $5 / 8$ inch.

From M to M is $1 / 8$ inch for every inch reduction. I to I is the same.
Place the side of the backpart to points M-I, with breast line on breast line; and shape the side of small backpart from $F$ through $G$ to $H$ and from $H$ through $I$ and $K$ to $M$.

From $F$ to $F$ is the same as from $A$ to $A$ which is $5 / 6$ inch.
Place the top of the backpart to points $A-E$, and trace out from A to E and E to F.
Draw lines from E to $\mathrm{E}, \mathrm{G}$ to $\mathrm{G}, \mathrm{H}$ to H and K to K .
Divide all connecting lines into five equal parts, and mark the sizes.

## THE FOREPARTS.

Trace the forepart on a stiff paper, mark the breast and waist lines, also the pockets and proceed as follows:

From I to I reduce the forepart $1 / 4$ inch for every inch.
From 2 to 2 is the same as from $I$ to $I$, and from 3 to 3 is the same.
Place the pattern to points $\mathrm{I}-2$ and 3 and trace the front edge from $Z$ down.
From 6 to 6 reduce the side of forepart $1 / 8$ inch for every inch, and from 4 to 4 the same.
Place the side of forepart to points 6-4, and trace the side seam of the small pattern from 7 through 6 and 5 to 4 .

Ascertain the distance from D to J by sixths, and make the distance D to S proportionately the same.

For instance, if the distance from D to J is $1 / 6$ of 38 breast make the distance from D to S, $1 / 6$ of 33 breast. Square up from S.

From $Q$ to $Q$ is the same distance as from A to A on backpart, which is $1 / 6$ inch for every inch decrease.

From $Q$ on small pattern to $V$ is proportionately the same as from $Q$ to $L$ on the 38 pattern. i. e., if from $Q$ to $L$ is $1 / 8$ of 38 breast plus $3 / 4$ inch, then from $Q$ to V on small pattern is $1 / 8$ of 33 breast plus $3 / 4$ inch. Square out from V

From O to O is the same as R to Q .
From N to N is the same as O to O .
Now place the 38 pattern to points $\mathrm{N}-\mathrm{O}-\mathrm{Q}$ and trace out the shoulder of the small pattern; also from $Q$ to $U$ trace out the gorge.

Points Y-X is where the V is cut out of the gorge.
Make the distance from U to Y on the small pattern the same as U to Y is on the large pattern.

Now draw lines from 7 to $7, N$ to $N$, $O$ to $\mathrm{O}, \mathrm{Q}$ to $\mathrm{Q}, \mathrm{T}$ to $\mathrm{T}, \mathrm{Y}$ to $\mathrm{Y}, \mathrm{U}$ to U and $Z$ to $Z$.
Divide all connecting points into five equal parts and number them.
This finishes the grade.
Now place the graded backpart on a paper and mark the centre seam.
Prick through all points marked 37 and trace out the backpart with the 38 pattern.
Do this to all backparts, always tracing them with the next larger pattern.
Now place the graded forepart on a paper and mark the front of armscye.
With an awl prick through all points marked 37 . Remove the grade and trace out with the 38 pattern.

Do this to all sizes, always tracing out with the next larger pattern.

$$
A M E R I C A N P A T T E R N G R A D E R
$$



DIAGRAM 5.

## How to Grade a Frock Coat from a Single Pattern

The principle of grading this pattern is the same as the sack coat with this exception, the sack coat is cut in two parts and this coat has three parts, i.e., the back, sidebody and forepart. The division at the back seams must therefore be in three parts instead of two, and as 3-12 equals $1 / 4$, and the division is $1 / 4$ inch for every inch, each part must have either an increase or decrease of $\frac{1}{12}$ inch for every inch.

The size of this pattern is 38 breast and is graded down to 34 .
THE BACKPART.
From A to B is $1 / 6$ inch for every inch.
Square out from B and make the distance from B to I, $1 / 6$ of 34 breast.
From 1 to 2 is $5 / 8$ inch.
From G to H and 29 to 30 is $1 / 8$ inch for every inch, which is $4-8$ inch.
Place the backpart to points $\mathrm{H}-30$ and trace from 3 to H .
From 4 to 3 is the same as from A to B.
Place the backpart to points B-2 and 2-3 and trace out.
From E to F is $\frac{1}{12}$ inch for every inch.
From D to C and J to I are the same.
Place the backpart to points $\mathrm{H}-\mathrm{F}-\mathrm{C}-\mathrm{I}$ and trace out.
From the lower point at $H$ to 30 is the same as $G$ to 29 :
Draw lines connecting all grade points from 2 to 5,3 to 4,30 to $29, \mathrm{E}$ to $\mathrm{F}, \mathrm{G}$ to D and I to J.

Divide all points into 4 equal parts and number them.

## THE SIDEBODY.

Reduce the sidebody from 12 to $13 \frac{1}{12}$ inch for every inch, and from 6 to 7 the same.
Place the sidebody breast line on breast line to points $13-7$ and trace out from 8 to 7 , and from 7 through I3 and down.

From 9 to 8 is $\frac{1}{12}$ inch for every inch.
Place the sidebody to points $8-\mathrm{E}$ and trace out.
Now divide all grading points into four equal parts and number them.

## THE FOREPART.

Reduce from 17 to $16 \frac{1}{12}$ inch for every inch, and from K to 20 the same.
Reduce from P to $\mathrm{Y} 1 / 4$ inch for every inch, and from Q to Z the same.
Place the forepart, breast line on breast line to points $Y-Z$; and trace the front edge from 25 through Y and Z to S .

Place the side of forepart to points $20-16$ and trace out.
Ascertain the distance from 24 to L by sixths and make from 24 to 21 proportionately the same. (See first diagram.)

Square up from 21 .
From $M$ to $W$ is the same as from $A$ to $B$ on backpart.
From V to 23 and from 22 to U are the same as from 28 to W .
From W to U is $3 / 8$ inch less than 2 to 3 on backpart.
From W to X is proportionately the same as from M to N . (See first diagram.)
Square forwards from X .
Now place the pattern to points $\mathrm{U}-23-\mathrm{W}$, and trace out, also from W to 25 .
Connect all grading points as shown and divide all points into four equal parts and number them.

## THE SKIRT.

Reduce the skirt from 34 to $33,1 / 4$ inch for every inch.
Measure the small front and sidebody from $S$ to 16 and to $T$, and make the skirt from 33 to 32 the same,


DIAGRAM 6,

From 35 to 36 is the same as from 31 to 32 .
Place the skirt pattern to points $32-36$ and trace down; also trace down from 33 , divide into four equal parts and number each size.

For cutting out you proceed as follows:
Place the graded backpart on a paper and mark the centre seam, after which prick through all points marked 37 . Remove the grade and trace out with the next larger size which is the 38 backpart. Continue in the same way for the next size. Prick through all points marked 36 and trace out with the 37 pattern.

THE SIDEBODY.
Place the graded sidebody on a paper and mark down the side as from E to T and the bottom from T to 17. Prick through all places marked 37 and trace out with the 38 pattern. The foreparts are cut in the same way. First mark the front of the armscye, after which prick through all places marked 37 and trace out with the 38 pattern.

To increase the frock grade proceed as follows:

## THE BACKPART.

Extend lines B to A, 2 to 5,3 to 4,30 to $29, \mathrm{H}$ to $\mathrm{G}, \mathrm{C}$ to D and I to J.
At B-A increase from 38 to 43 in the same proportion as the decrease was from 38 to 34 , which is $1 / 6$ inch for every size.

At $2-5$ increase from 38 to 43 in the same proportion as the decrease was from 38 to 34 . Increase at all grading points in the same proportion as the decrease was from 38 to 34 .
The sidebody and skirt are increased in the same way as the backpart, i. e., increase in the same proportion as the decrease was made.

The forepart is increased as follows:
At line Y-P add $1 / 4$ inch for every size, at lines $Z-Q$ and $S-R$ add 5-16 inch for every size; at 17 and 16 add $\frac{1}{12}$ inch for every size; all other points are increased in the same proportion as the decrease was from 38 to 34 .


DIAGRAM 7.

## How to Grade a Stout Frock Coat from a Single Pattern

The size of this pattern is 42 breast and is graded down to 38 .

## THE BACKPART.

From A to B is $1 / 6$ inch for every inch.
Square out from B and make the distance from B to $1,1 / 6$ of 38 breast.
From I to 2 is $5 / 8$ inch.
From G to H and 29 to 30 is $1 / 8$ inch for every inch, which is $4-8$ inch.
Place the backpart to points $\mathrm{H}-30$ and trace from 3 to H .
From 4 to 3 is the same as from A to B.
Place the backpart to points B-2 and 2-3 and trace out.
From E to F is $\frac{1}{12}$ inch for every inch.
From D to C and J to I are the same.
Place the backpart to points $\mathrm{H}-\mathrm{F}-\mathrm{C}-\mathrm{I}$ and trace out.
Draw lines connecting all grade points from 2 to 5,3 to $4, \mathrm{E}$ to $\mathrm{F}, \mathrm{C}$ to D and I to J.
Divide all points into four equal parts and number them.
THE SIDEBODY.
Reduce the sidebody from 12 to 13 , $\frac{1}{12}$ inch for every inch, and from 6 to 7 the same.
Place the sidebody breast line on breast line to points $13-7$ and trace out from 8 to 7 , and from 7 through 13 and down; from 13 to 15 is the same as 12 to 14 .

From 9 to 8 is $\frac{1}{12}$ inch for every inch.
Place the sidebody to points 8-*, which is slightly above the breast line and trace out.
Now divide all grading points into four equal parts and number them.

## THE FOREPART.

Reduce from 17 to 16 , $\frac{1}{12}$ inch for every inch, and from $K$ to 20 the same.
Reduce from P to $\mathrm{Y} 1 / 4$ inch for every inch, and from $Q$ to $Z$ the same.
Place the forepart, breast line on breast line to points $\mathrm{Y}-\mathrm{Z}$; and trace the front edge from 25 through Y and Z to S .

Place the side of forepart to points $20-16$ and trace out. From 18 to 16 is the same as 19 to 17 . From io up to the small forepart is the same as 16 is above 17 .

Ascertain the distance from 24 to L by sixths, and make from 24 to 2I proportionately the same. (See first diagram.) Square up from 21 .

From M to W is the same as from A to B on backpart.
From V to 23 and from 22 to U are the same as from 28 to W .
From W to U is $3 / 8$ inch less than 2 to 3 on backpart.
From $W$ to $X$ is proportionately the same as from $M$ to $N$. (See first diagram.) Square forward from X.

Now place the pattern to points $\mathrm{U}-23-\mathrm{W}$, and trace out, also from W to 25 .
Connect all grading points as shown and divide all points into four equal parts and number them.

For cutting out always begin with the next to the largest size, in this case the 4 I .
Prick through all points marked 4 I and trace out with the next largest pattern, which is the 42.

In increasing the sizes begin with the 43 and trace out with the 42 which is the next smallest.


DIAGRAM 8.

## How to Grade a Double-Breasted Frock Coat from a Single Pattern

The size of this pattern is 38 breast and is graded down to 34 .
THE BACKPART.
From A to B is $1 / 6$ inch for every inch.
Square out from B and make the distance from B to 1 , $1 / 6$ of 34 breast.
From 1 to 2 is $5 / 8$ inch.
From G to H and 29 to 30 is $1 / 8$ inch for every inch, which is $4-8$ inch.
Place the backpart to points $\mathrm{H}-30$ and trace from 3 to H .
From 4 to 3 is the same as from A to B.
Place the backpart to points B-2 and 2-3 and trace out.
From $E$ to $F$ is $\frac{1}{12}$ inch for every inch.
From D to C is the same.
Place the backpart to points $\mathrm{H}-\mathrm{F}-\mathrm{C}-\mathrm{I}$ and trace out.
Draw lines connecting all grade points from 2 to 5,3 to 4,30 to $29, \mathrm{E}$ to $\mathrm{F}, \mathrm{C}$ to D and I to J.

Divide all points into four equal parts and number them.

## THE SIDEBODY.

Reduce the sidebody from 12 to $13 \frac{1}{12}$ inch for every inch, and from 6 to 7 the same.
Place the sidebody breast line on breast line to points $13-7$ and trace out from 8 to 7 and from 7 through 13 and down. From 13 to 15 is the same as 12 to 17.

From 9 to 8 is $\frac{1}{12}$ inch for every inch.
Place the sidebody to points 8-star, which is slightly above the breast line, and trace out.
Now divide all grading points into four equal parts and number them.

## THE FOREPART.

Reduce from 17 to $16 \frac{1}{12}$ inch for every inch, and from $K$ to 20 the same.
Reduce from P to $\mathrm{Y} 1 / 4$ inch for every inch, and from Q to Z the same.
Place the forepart, breast line on breast line to points $Y-Z$, and trace the front edge from 25 through Y and Z to S . Point S is as much above the lower line as line 16 is above line 17 .

Place the side of forepart to points $20-16$ and trace out.
Ascertain the distance from 24 to L by sixths, and make from 24 to 21 proportionately the same. (See first diagram.) Square up from 21 .

From $M$ to $W$ is the same as from $A$ to $B$ on backpart.
From V to 23 and from 22 to $U$ are the same as from 28 to W .
From W to U is $3 / 8$ inch less than 2 to 3 on backpart.
From W to X is proportionately the same as from M to N . (See first diagram.) Square forward from X.

Now place the pattern to points $\mathrm{U}-23-\mathrm{W}$, and trace out, also from W to 25 .
Connect all grading points as shown and divide all points into four equal parts and number them.

## THE SKIRT.

Reduce the skirt from 34 to $33,1 / 4$ inch for every inch.
Measure the small front from $S$ to 16 and 15 to $T$, and make the skirt from 33 to 32 the same.

From 35 to 36 is the same as from 31 to 32 .
Place the skirt pattern to points $32-36$ and trace down; also trace down from 33, divide into four equal parts and number each size.

For cutting out always begin with the next to the largest size, in this case the 37 . Prick through all points marked 37 and trace out with the next largest pattern, which is the 38 .

The rever is graded as follows:
From R to 10 is the same as $S$ to 25 on forepart, from 10 to 14 is the same as II to 15 , divide from 10 to II and 14 to 15 into four equal parts.


DIAGRAM 9.

## How to Grade Dress Coats from a Single Pattern

This grade is made from a 38 breast pattern and is graded down to 34 inch breast. The back and sidebody being graded the same as the other frock coats, we will just show the front and the skirt.

> THE FOREPART.

Reduce from i7 to $16, \frac{1}{12}$ inch for every inch.
From K to 20 is the same as 17 to 16.
Reduce from $P$ to $Y 1 / 4$ inch for every inch and from $Q$ to $Z$ the same.
Place the forepart, breast line on breast line to points $Y-Z$, and trace the front edge from 25 through Y and Z to S .

Place the side of forepart to points $20-16$ and trace down.
From C to 16 is the same length as from D to 17 .
Line A is as much above line B as line 16 is above line 17 .
Ascertain the distance from 24 to L by sixths and make from 24 to 21 proportionately the same. (See first diagram.)

Square up from 21 .
From M to W is $1 / 6$ for every inch.
From V to 23 and from 22 to U are the same as from 28 to W .
From $W$ to $U$ is $3 / 8$ inch less than the back shoulder seam.
From W to X is proportionately the same as from M to N . (See first diagram.)
Square forward from X .
Now place the pattern to points $\mathrm{U}-23-\mathrm{W}$, and trace out; also trace out from W to 10 .
From 25 to 14 is the same as from O to 15 .
From 10 to 26 and from 14 to 26 is where the $V$ is cut out of the small forepart.
Connect lines from 10 to II and from 14 to 15 ; also from 26 to 27 .
Now connect all grading points as shown and divide them all into four equal parts and number them.

## THE SKIRT.

Reduce the skirt from 34 to $331 / 4$ inch for every inch, and from 31 to 32 the same.
From 35 to 36 is the same as from 31 to 32 .
From 36 to 32 is the same as from 35 to 31 .
Connect points $32-3 \mathrm{I}-36-35,33-34$, and divide them all into four equal portions and number them.

Cut out these patterns in the same way as the other graded patterns beginning with the 37 and tracing it out with the 38 .


DIAGRAM 10.

## How to Grade a Waistcoat from a Single Pattern

This grade is made from a 38 breast and is graded down to 34 .

## THE BACKPART.

From A to B is $1 / 6$ inch for every inch reduction, which is $4-6$ inch. Square out from B and make the distance from B to C $1 / 6$ of 34 breast. From C to D is $5 / 8$ inch.

Place the square to the breast line so that the right angle will touch at G and square up from 3 to G .

From 3 to 2 reduce the backpart $1 / 8$ inch for every inch; square up from 2.
From $G$ to $F$ is the same as from A to B, which is $1 / 6$ inch for every inch.
From I to H reduce the backpart $1 / 4$ inch for every inch.
From K to J and M to L are $1 / 4$ inch for every inch.
Place the back pattern to points B-D and trace out; also trace out from D to F, from F to H and H through J to L .

Draw lines connecting points $\mathrm{D}-\mathrm{E}, \mathrm{F}-\mathrm{G}, \mathrm{H}-\mathrm{I}, \mathrm{J}-\mathrm{K}$, and $\mathrm{L}-\mathrm{M}$.
Divide all connecting points into four equal parts and number them according to size.

## THE FOREPART.

Ascertain the distance from 4 to R by sixths and make the distance from 4 to S proportionately the same.

For instance, if from 4 to R is $1 / 6$ of 38 breast plus $3 / 4$ inch make the distance from 4 to S $1 / 6$ of 34 breast plus $3 / 4$ inch; square up from S.

From Q to P is $1 / 6$ inch for every inch reduction ; from O to N is the same as from S to P .
From P to N is $1 / 4$ inch more than from D to F .
From W to V reduce the front $1 / 4$ inch for every inch.
From Y to X and Z to I are the same.
Place the front edge of pattern to points $\mathrm{V}-\mathrm{X}-\mathrm{I}$ and trace the front edge; also trace cut the shoulder, opening and armscye.

Draw lines connecting points $\mathrm{N}-\mathrm{O}, \mathrm{P}-\mathrm{Q}, \mathrm{V}-\mathrm{W}, \mathrm{X}-\mathrm{Y}$ and $\mathrm{Z}-\mathrm{I}$, and divide all connecting points into four equal portions and number them.

Now beginning with the backpart, mark the center seam and bottom.
Prick through all points marked 37 and trace it out with the 38 pattern.
Follow this up, and as before, prick through all points marked 36 and trace it out with the 37 pattern and so on until finished.

## THE FOREPART.

Place your graded forepart on a paper; mark the armscye and side seam, after which prick through all points marked 37 and trace it out with the 38 pattern. Keep on in the same way until finished, always tracing out with the next larger pattern,
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DIAGRAM in.

## Double Grading

For the man who is sure of his pattern there is nothing like the double grade. It is the quickest, surest and most simple way, and although some cutters will argue that in case of an alteration it is easier to make one model, alter it and grade from it, yet if the cutter finds it necessary to change one pattern it is just as easy to change the 42 breast pattern as the 36 or the 38 , and grade from two patterns. This grade is made from a 36 and a 42 breast pattern.

This grade is made from a 36 and 42 breast pattern.

## Single-Breasted Sack Coat

## THE BACKPART.

Place the backpart of a 36 breast pattern on the backpart of a 42 pattern, with the breast line on breast line, and centre seam to centre seam. Mark the small back on the large one.

Draw lines from $D$ to $\mathrm{D}, \mathrm{E}$ to $\mathrm{E}, \mathrm{B}$ to $\mathrm{B}, \mathrm{F}$ to $\mathrm{F}, \mathrm{C}$ to $\mathrm{C}, \mathrm{G}$ to G , and X to X . Divide all the corresponding points between the small and large patterns into six equal parts and number each division according to size.

## THE FOREPART.

Copy the forepart of the 42 breast pattern on a stiff paper; also mark the breast and waist lines and the pockets.

Place the front of the 36 breast pattern on the 42 front, with breast line on breast line, and front of armscye to front of armscye. Mark the small pattern on the large one; also mark the small pockets on the large pattern.

Now connect all the grading points as shown from $L$ to $L, K$ to $K, R$ to $R, S$ to $S, T$ to $T$, U to $\mathrm{U}, 6$ to $6, \mathrm{~J}$ to $\mathrm{J}, 5$ to $5, \mathrm{Q}$ to $\mathrm{Q}, \mathrm{P}$ to $\mathrm{P}, \mathrm{O}$ to O , and N to N , and make as many more lines as desired so as to ensure perfect lines; and divide them all into six equal parts and number them.

Now place the graded backpart on a paper and mark the centre seam.
Prick through all points marked 37 and trace out the backpart with the 36 pattern.
Do this to all backparts, always tracing them with the next smaller pattern.

## THE FOREPART.

Place the graded forepart on a paper and mark the front of armscye.
Prick through all points marked 37 and trace it out with the 36 pattern.
Do the same with the 38 forepart, and trace it with the 37 pattern and so on until finished.


DIAGRAM 12.

## Double Grading

This grade is made from a 38 and a 48 breast pattern.

Single-Breasted Stout Sack

THE BACKPART.
Place the backpart of a 38 breast pattern on the backpart of a 48 pattern with the breast line on breast line, and centre seam to centre seam. Mark the small back on the large one.

Draw lines from D to D, E to E, B to B, F to F, C to C, G to G and X to X.
Divide all the corresponding points between the small and large pattern into ten equal parts and number each division according to size.

## THE FOREPART.

Copy the forepart of the 48 breast pattern on a stiff paper ; also mark the breast and waist lines and the pockets.

Place the front of the 38 breast pattern on the 48 front, with breast line on breast line, and front of armscye to front of armscye. Mark the small pattern on the large one; also mark the small pockets on the large pattern.

Now connect all the grading points as shown from L to $\mathrm{L}, \mathrm{K}$ to $\mathrm{K}, \mathrm{R}$ to $\mathrm{R}, \mathrm{S}$ to $\mathrm{S}, \mathrm{T}$ to T , U to $\mathrm{U}, 6$ to $6, \mathrm{~J}$ to $\mathrm{J}, 5$ to $5, \mathrm{Q}$ to $\mathrm{Q}, \mathrm{P}$ to $\mathrm{P}, \mathrm{O}$ to O , and N to N , and make as many more lines as desired so as to ensure perfect lines; and divide them all into ten equal parts and number them.

Now place the graded backpart on a paper and mark the centre seam.
Prick through all points marked 39 and trace out the backpart with the 38 pattern.
Do this to all backparts, always tracing them with the next smaller pattern.

## THE FOREPART.

Place the graded forepart on a paper and mark the front of armscye.
Prick through all points marked 39 and trace it out with the 38 pattern.
Do the same with the 40 forepart, and trace it with the 39 pattern and so on until finished.


## Double-Breasted Sack Coat

THE BACKPART.

Place the backpart of a 33 breast pattern on the backpart of a 43 pattern, with the breast line on breast line, and centre seam to centre seam. Mark the small back on the large one.

Draw lines from $D$ to $D, E$ to $E, B$ to $B, F$ to $F, C$ to $C, G$ to $G, X$ to $X$ and $I$ to $I$.
Divide all the corresponding points between the small and large patterns into ten equal parts and number each division according to size.

## THE FOREPART.

Copy the forepart of the 43 breast pattern on a stiff paper; also mark the breast and waist lines and pockets.

Place the front of the 33 breast pattern on the 43 front, with breast line on breast line, and front of armscye to front of armscye. Mark the small pattern on the large one; also mark the small pockets on the large pattern.

Now connect all the grading points as shown from L to $\mathrm{L}, \mathrm{K}$ to $\mathrm{K}, \mathrm{R}$ to $\mathrm{R}, \mathrm{S}$ to $\mathrm{S}, \mathrm{T}$ to T , U to $\mathrm{U}, 6$ to $6, \mathrm{~J}$ to $\mathrm{J}, 5$ to $5, Q$ to $\mathrm{Q}, \mathrm{P}$ to $\mathrm{P}, \mathrm{O}$ to O , and N to N , and make as many more lines as desired so as to ensure perfect lines; and divide them all into ten equal parts and number them.

Now place the graded backpart on a paper and mark the centre seam.
Prick through all points marked 34 and trace out the backpart with the 33 pattern.
Do this to all backparts, always tracing them with the next smaller pattern.

## THE FOREPART.

Place the graded forepart on a paper and mark the front of armscye.
Prick through all points marked 34 and trace it out with the 33 pattern.
Do the same with the 35 forepart, and trace it with the 34 pattern and so on until finished.


DIAGRAM 14.

## How to Make a Double Grade for a Frock Coat

This grade is made from 34 to 42 breast.

## THE BACKPART.

Place the backpart of a 34 size frock coat on a 42 size, with breast line on breast line, and centre seam to centre seam.

Mark the small pattern on the large one.
Draw lines connecting points $\mathrm{A}-\mathrm{A}, \mathrm{D}-\mathrm{D}, \mathrm{E}-\mathrm{E}, \mathrm{B}-\mathrm{B}, \mathrm{F}-\mathrm{F}, \mathrm{C}-\mathrm{C}, \mathrm{G}-\mathrm{G}$ and $\mathrm{I}-\mathrm{I}$.
Now divide all the connecting lines into 8 equal parts and number them according to sizes.

## THE SIDEBODY.

Place the 34 sidebody on the 42 size, with breast line on breast line, keeping them even at line $8-9$, mark the small sidebody on the large one.

Draw lines connecting points $\mathrm{I}-\mathrm{I}, \mathrm{Y}-\mathrm{Y}$, and $\mathrm{U}-\mathrm{U}$, and draw as many more lines as you like so as to ensure perfect uniformity of the parts graded.

## THE FOREPART.

Copy the forepart of the 42 breast size on a stiff paper and mark the breast and waist lines.
Place the forepart of the 34 breast size upon it, with breast line on breast line and front of armscye to front of armscye.

Mark the small pattern upon the large one.
Draw lines connecting points $\mathrm{L}-\mathrm{L}, \mathrm{K}-\mathrm{K}, \mathrm{R}-\mathrm{R}, \mathrm{S}-\mathrm{S}, \mathrm{T}-\mathrm{T}, \mathrm{J}-\mathrm{J}, \mathrm{Q}-\mathrm{Q}, \mathrm{P}-\mathrm{P}$, and O -O ; and draw as many more lines as desired to ensure perfect uniformity of the foreparts.

Divide all connecting lines into 8 equal parts and number them.
To mark the pockets proceed as follows:
Mark the regular breast pocket on the 42 copy, and mark the regular pocket on the 34 forepart, after which mark the breast pocket of the small pattern on the 42 copy and divide the difference between the large and small pockets into 8 equal parts and number them.

THE SKIRT.
Place the 34 size skirt on the 42 size keeping them even as at io-7. Mark the small skirt on the large one.

Point 7 is where the skirts diverge.
Connect points $5-5$ and $6-6$ and divide the connecting lines into 8 equal parts and number them.

This finishes the grade.
Now beginning with the backpart, mark the centre seam and prick through all points marked 35 .

Remove the graded backpart and trace out the 35 with the 34 pattern.
Repeat in the same way marking out the 36 size and tracing it out with the 35 backpart.

## THE SIDEBODY.

Place the graded sidebody on a paper and mark as from star (which is where the two sidebodies diverge), through 8 to 9 .

Prick through all points marked 35 and trace it out with the 34 pattern.
THE FOREPART.
Place the graded forepart on a paper and mark the front of the armscye.
Prick through all places marked 35 and trace it out with the 34 pattern.
Repeat the same, marking the 36 and tracing it out with the 35 pattern, and so on until finished.

## THE SKIRT.

Place the graded skirt on a paper and mark from 7 where the two skirts diverge to 10 , down the front edge and the bottom.

Prick through at 5 and 6 at places marked 35 ; and trace it out with the 34 skirt pattern, making all points meet at 7 .
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DIAGRAM 15.

# How to Make a Double Grade for a Stout Frock Coat 

This grade is made from 38 to 48 breast.

## THE BACKPART.

Place the backpart of a 38 size frock coat on a 48 size, with breast line on breast line, and centre seam to centre seam.

Mark the small pattern on the large one.
Draw lines connecting points $A-A, D-D, E-E, F-F, C-C, G-G$, and $\mathrm{I}-\mathrm{r}$.
Now divide all the connecting lines into 10 equal parts and number them according to sizes.

## THE SIDEBODY.

Place the 38 sidebody on the 48 size, with breast line on breast line, keeping them even at line 8 - 9 ; mark the small sidebody on the large one.

Draw lines connecting points $\mathrm{I}-\mathrm{I}, \mathrm{Y}-\mathrm{Y}, \mathrm{X}-\mathrm{X}$, and $\mathrm{U}-\mathrm{U}$, and draw as many more lines as you like so as to ensure perfect uniformity of the parts graded.

## THE FOREPART.

Copy the forepart of the 48 breast size on a stiff paper and mark the breast and waist lines.
Place the forepart of the 38 breast size upon it, with breast line on breast line and front of armscye to front of armscye.

Mark the small pattern upon the large copy.
Draw lines connecting points $\mathrm{L}-\mathrm{L}, \mathrm{K}-\mathrm{K}, \mathrm{R}-\mathrm{R}, \mathrm{S}-\mathrm{S}, \mathrm{T}-\mathrm{T}, \mathrm{J}-\mathrm{J}, \mathrm{Q}-\mathrm{Q}, \mathrm{P}-\mathrm{P}$, and O -O ; and draw as many more lines as desired to ensure perfect uniformity of the foreparts.

Divide all connecting lines into 10 equal parts and number them.
Now beginning with the backpart:
Mark the centre seam and prick through all points marked 39.
Remove the graded backpart and trace out the 39 with the 38 pattern.
Repeat in the same way marking out the 40 size and tracing it out with the 39 backpart.
THE SIDEBODY.
Place the graded sidebody on a paper and mark as from star, (which is where the two sidebodies diverge), through 8 to 9 .

Prick through all points marked 39 and trace it out with the 38 pattern.

## THE FOREPART.

Place the graded forepart on a paper and mark the front of the armscye.
Prick through all places marked 39 and trace it out with the 38 pattern.
Repeat the same, marking the 40 and tracing it out with the 39 pattern, and so on until finished.


DIAGRAM 16.

## How to Make a Double Grade for a Double-Breasted Frock

This grade is made from a 38 to 44 breast.
THE BACKPART.
Place the backpart of a 38 size frock coat on a 44 size, with breast line on breast line, and centre seam to centre seam.

Mark the small pattern on the large one.
Draw lines connecting points $\mathrm{A}-\mathrm{A}, \mathrm{D}-\mathrm{D}, \mathrm{E}-\mathrm{E}, \mathrm{B}-\mathrm{B}, \mathrm{F}-\mathrm{F}, \mathrm{C}-\mathrm{C}, \mathrm{G}-\mathrm{G}$, and $\mathrm{I}-\mathrm{r}$.
Now divide all the connecting lines into 6 equal parts and number them according to sizes.
THE SIDEBODY.
Place the 38 sidebody on the 44 size, with breast line on breast line. Keeping them even at line 8-9, mark the small sidebody on the large one.

Draw lines connecting points $\mathrm{I}-\mathrm{I}, \mathrm{Y}-\mathrm{Y}, \mathrm{X}-\mathrm{X}$ and $\mathrm{U}-\mathrm{U}$ and draw as many more lines as you like so as to ensure perfect uniformity of the parts graded.

## THE FOREPART.

Copy the forepart of the 44 breast size on a stiff paper and mark the breast and waist lines.
Place the forepart of the 38 breast size upon it, with breast line on breast line and front of armscye to front of armscye.

Mark the small pattern upon the large copy.
Draw lines connecting points $\mathrm{L}-\mathrm{L}, \mathrm{K}-\mathrm{K}, \mathrm{R}-\mathrm{R}, \mathrm{S}-\mathrm{S}, \mathrm{T}-\mathrm{T}, \mathrm{J}-\mathrm{J}, \mathrm{Q}-\mathrm{Q}, \mathrm{P}-\mathrm{P}$, and $\mathrm{O}-\mathrm{O}$; and draw as many more lines as desired to ensure perfect uniformity of the foreparts.

Divide all connecting lines into 6 equal parts and number them.
THE SKIRT.
Place the 38 size skirt on the 44 size, keeping them even at star, which is half way between 5 and 7. Mark the small skirt on the large one.

Connect points $5-5,6-6,7-7$ and $8-8$ and divide the connecting lines into 6 equal parts and number them.

## THE REVER.

Place the rever of the 38 coat on the 44 rever, keeping them even on the straight line and bottom; connect points 9-9, and 10-10 and divide them into 6 equal parts.

Now beginning with the backpart, mark the centre seam and prick through all points marked 39 .

Remove the graded backpart and trace out the 39 with the 38 pattern.
Repeat in the same way marking out the 40 size and tracing it out with the 39 backpart.
THE SIDEBODY.
Place the graded sidebody on a paper and mark as from star, which is where the two sidebodies diverge through 8 to 9 .

Prick through all points marked 39 and trace it out with the 38 pattern.
THE FOREPART.
Place the graded forepart on a paper and mark the front of the armscye.
Prick through all places marked 39 and trace it out with the 38 pattern.
Repeat the same, marking the 40 and tracing it out with the 39 pattern, and so on until finished.

## THE SKIRT.

Place the graded skirt on a paper and mark across the top as from 5 through the star to 7 .
Prick through at $5-6-7-8$ at places marked 39 . Remove the grade and trace out with the 38 pattern. Do the same with the 40 and trace out with the 39 pattern and so on until finished.

The rever is cut out the same as the other parts.


DIAGRAM 17.

## How to Make a Double Grade for a Dress Coat

This grade is made from 34 to 42 breast.
This grade being made the same as the other double grade frock coats, it is only necessary to describe the foreparts.

## THE FOREPART.

Copy the forepart of the 42 breast size dress coat on a stiff paper and mark the breast line.
Place the forepart of the 34 breast size upon it, with breast line on breast line and front of armscye to front of armscye.

Mark the small pattern upon the large copy.
Draw lines connecting points $\mathrm{L}-\mathrm{L}, \mathrm{K}-\mathrm{K}, \mathrm{R}-\mathrm{R}, \mathrm{S}-\mathrm{S}, \mathrm{T}-\mathrm{T}, \mathrm{J}-\mathrm{J}, \mathrm{Q}-\mathrm{Q}, \mathrm{P}-\mathrm{P}$, and O-O.

Points $3-\mathrm{M}$ is where the V is cut out of the gorge, and points $11-12-13$ is where the fish is cut out at the waist.

Connect points $11-11,12-12$, and $13-13$, also $M-M$ and $3-3$.
Divide all connecting lines into eight equal parts and number them.
Place the graded forepart on a paper and mark the front of the armscye.
Prick through all places marked 35 and trace it out with the 34 pattern.
Repeat the same, marking the 36 and tracing it out with the 35 pattern, and so on until finished.


DIAGRAM 18.

## The Sleeve

The sleeves are graded as follows:
The coats being graded, measure the armscye of the smaller pattern and also the armscye of the largest pattern and cut a sleeve for each coat.

## HOW TO GRADE.

These sleeves are graded from 34 to 42 .
Place the top sleeve of the 34 pattern on the top sleeve of the 42 , the sleeves to lay even at O-A, so that the front notch will come together on both sleeves.

Mark the small pattern on the large one.
Draw lines connecting $\mathrm{E}-\mathrm{E}, \mathrm{C}-\mathrm{C}, \mathrm{B}-\mathrm{B}$ and $\mathrm{A}-\mathrm{A}$. Put in other lines as at $\mathrm{F}-\mathrm{F}$, $\mathrm{G}-\mathrm{G}$, and $\mathrm{H}-\mathrm{H}$, so as to ensure perfect uniformity of the patterns.

Divide all connecting lines into eight equal portions and number them according to sizes.

## THE UNDERSLEEVE.

Place the undersleeve of the 42 size on a stiff paper and trace it out.
Place the undersleeve of the 34 pattern on the 42 undersleeve.
Keep them even at points N-J. Mark the small undersleeve on the large one.
Now connect points $\mathrm{N}-\mathrm{N}, \mathrm{J}-\mathrm{J}$; also connect at the elbow at $\mathrm{M}-\mathrm{M}$ and $\mathrm{P}-\mathrm{P}$.
Divide all connecting lines into eight equal parts and number them.
Now place the graded top sleeve on a sheet of paper and mark as from I (which is where the two sleeves diverge), to point $O$ and from $O$ to $A$.

Prick through all points marked 35 and trace it out with the 34 pattern.
Continue in the same way pricking through all points marked 36 and trace it out with the 35 pattern.

## THE UNDERSLEEVE.

Place the graded undersleeve on a paper and mark as from N to J .
Prick through all points marked 35 and trace it out with the 34 pattern.
Continue in the same way pricking through all points marked 36 , and tracing it out with the 35 pattern, and so on until finished, always tracing out with the next smaller size.


DIAGRAM 19.

## How to Grade Collars

The grading of collars ought to be well understood after the description of the other grades. Cut a collar for the smallest pattern and one for the largest pattern.
Place the small pattern on top of the large one, the crease line as at point A to meet.
Draw lines connecting the small collar with the large one, divide them into as many parts as the difference is between the smallest and the largest pattern, number them, cut them out in the same way as all double grades are cut, beginning with the next to the smallest collar and always tracing it out with the smaller size.

$$
A M E R I C A N P A T T E R N \text { GRADER }
$$



DIAGRAM 20.

## The Double Grade

## How to Grade Vests from Two Patterns

This grade is made from 34 inches to 42 inches breast.
Place the backpart of a 34 inch breast waistcoat on a 42 inch back pattern with breast line on breast line and centre seam to center seam. Mark the small pattern on the large one.

Draw lines connecting all grading points as from $\mathrm{A}-\mathrm{A}, \mathrm{B}-\mathrm{B}, \mathrm{C}-\mathrm{C}, \mathrm{E}-\mathrm{E}, \mathrm{F}-\mathrm{F}$, and G-G; also connect the two armscyes as at D-D, and divide all the grading points into eight equal parts, and number them.

## THE FOREPART.

Trace out the forepart of a 42 inch breast waistcoat on a paper; mark the breast and waist lines, also the pockets.

Now place the forepart of a 34 inch breast waistcoat on the 42 forepart with breast line on breast line, and front of armscye to front of armscye; mark the small pattern on the large one; also prick through the pockets of the small waistcoat on the large pattern.

Now draw connecting lines between the two foreparts as from J-J, L-L, M-M, O-O, and $I-I$; also connect the pockets as from $S-S, R-R, Q-Q$, and $P-P$.

Put in as many extra lines as you like so as to ensure perfect uniformity.
Divide all the connecting lines into 8 equal parts and number them. This finishes the grade.
Now, beginning with the backpart, mark the centre seam and bottom, after which prick through all points marked 35 .

Remove the grade and trace out the 35 backpart with the 34 pattern.
Continue in the same way with the 36 , tracing it out with the 35 pattern.

## THE FOREPART.

Place the graded forepart on a sheet of paper and mark around the lower part of the armscye, the side of the forepart and part of the bottom, after which prick through all places marked 35.

Remove the grade and trace out with the 34 pattern.
Continue it the same way, always tracing out-with the next smaller pattern.


DIAGRAM 21.

## The Double Grade

How to grade stout vests from two patterns.
This grade is made from 38 inches to 48 inches breast.
Place the backpart of a 38 inch breast waistcoat on a 48 inch back pattern with breast line on breast line and centre seam to centre seam. Mark the small pattern on the large one.

Draw lines connecting all grading points as from $\mathrm{A}-\mathrm{A}, \mathrm{B}-\mathrm{B}, \mathrm{C}-\mathrm{C}, \mathrm{E}-\mathrm{E}, \mathrm{F}-\mathrm{F}$, and $\mathrm{G}-\mathrm{G}$; also connect the two armscyes as at $\mathrm{D}-\mathrm{D}$, and divide all the grading points into ten equal parts, and number them.

## THE FOREPART.

Trace out the forepart of a 48 inch breast waistcoat on a paper ; mark the breast and waist lines also the pockets.

Now place the forepart of a 38 inch breast waistcoat on the 48 forepart with breast line on breast line, and front of armscye to front of armscye. Mark the small pattern on the large one; also prick through the pockets of the small waistcoat on the large pattern.

Now draw connecting lines between the two foreparts as from $\mathrm{J}-\mathrm{J}, \mathrm{L}-\mathrm{L}, \mathrm{M}-\mathrm{M}, \mathrm{O}-\mathrm{O}$, and $\mathrm{I}-\mathrm{I}$; also connect the pockets as from $\mathrm{S}-\mathrm{S}, \mathrm{R}-\mathrm{R}, \mathrm{Q}-\mathrm{Q}$, and $\mathrm{P}-\mathrm{P}$.

Put in as many more lines as you like so as to ensure perfect uniformity.
Divide all the connecting lines into ten equal parts and number them. This finishes the grade.

Now beginning with the backpart.
Nark the centre seam and bottom, after which prick through all points marked 39.
Remove the grade and trace out the 39 backpart with the 38 pattern.
Continue with the 40 in the same way, tracing it out with the 39 pattern.
THE FOREPART.
Place the graded forepart on a sheet of paper and mark around the lower part of the armscye, the side of the forepart and part of the bottom, after which prick through all places marked 39.

Remove the grade and trace out with the 38 pattern.
Continue in the same way, always tracing out with the next smaller pattern.


DIAGRAM 22

## How to Grade a Double-Breasted Waistcoat from Two Patterns

The double grade for the double breasted waistcoat is made the same as the other waistcoats, except lines $\mathrm{L}-\mathrm{V}$, which shows the centre of lap.

Trace out the forepart of a 42 inch breast waistcoat on a paper; mark the breast and waist lines, also the pockets.

Now place the forepart of a 34 inch breast waistcoat on the 42 forepart with breast line on breast line, and front of armscye ta front of armscye. Mark the small pattern on the large one; also prick through the pockets of the small waistcoat on the large pattern.

Now draw connecting lines between the two foreparts as from $\mathrm{J}-\mathrm{J}, \mathrm{L}-\mathrm{L}, \mathrm{M}-\mathrm{M}, \mathrm{O}-\mathrm{O}$, and I-I ; also connect the pockets as from $S-S, R-R, Q-Q$, and $P-P$.

Put in as many more lines as you like so as to ensure perfect uniformity.
Divide all the connecting lines into eight equal parts and number them. This finishes the grade.

Place the graded forepart on a sheet of paper and mark around the lower part of the armscye, the side of the forepart and part of the bottom, after which prick through all places marked 35.

Remove the grade and trace out with the 34 pattern.
Continue in the same way always tracing out with the next smaller pattern.


DIAGRAM 23.

## How to Grade Trousers

These trousers are graded between 34 and 40 seat.

## THE FOREPART.

Place the forepart of a 34 size pattern on the forepart of a 40 pattern with lines B-G on lines $\mathrm{B}-\mathrm{G}$, and centre line on centre line.

If the trousers have no centre line, a centre line may be drawn in the following manner: Point E is half way between D and L and the double circle line is half way between B and G .

Draw a line from $E$ through the double circle.
Now place centre line on centre line.
Draw lines connecting the smallest with the largest pattern, as from A to A, I to I, B to $B, C$ to $C, D$ to $D, L$ to $L, K$ to $K, G$ to $G, J$ to $J$, and $H$ to $H$.

Divide all connecting lines into 6 equal parts and number them.

## THE BACKPART.

Place the 34 backpart on the 40 backpart, keeping them even at the side seam.
Connect points $\mathrm{M}-\mathrm{M}, \mathrm{N}-\mathrm{N}, \mathrm{O}-\mathrm{O}, \mathrm{P}-\mathrm{P}, \mathrm{Q}-\mathrm{Q}, \mathrm{R}-\mathrm{R}, \mathrm{S}-\mathrm{S}, \mathrm{T}-\mathrm{T}, \mathrm{U}-\mathrm{U}, \mathrm{V}-\mathrm{V}$, and W-W.

Divide all connecting lines into 6 equal portions and number them.
The backpart may be graded either in the way as explained here, or it may be graded half and half in the same way as the forepart is.

If the side seams of the smallest and largest backparts are even, it is best to grade in this way because it saves time, but if the side seams do not come out even it is bost to grade them half and half the same way as the foreparts are graded.

Now place the graded foreparts on a paper; prick through all points marked 35 and trace it out with a 34 pattern.

Continue in the same way pricking through all points marked 36 and trace them out with the 35 pattern and so on until finished.

## THE BACKPART.

Place the graded backpart on a piece of paper and trace down the side seam; prick through all points marked 35 and trace it out with the 34 pattern.

If the backpart is graded half and half then it must be cut out in the same way as the forepart.


DIAGRAM 24.

## ${ }_{58}{ }^{8}$ Block Patterns and How to Use Them

In the use of block patterns, the various attitudes are divided into three degrees, i.e., the slightly erect, the erect and the over-erect ; the slightly stooping, the stooping and the very stooping (the hunchback is not considered in the stooping class) ; the slightly sloping, the sloping and the very sloping shoulders; the normal, the square and the high shoulders.

To meet these attitudes, use $1 / 4$ inch for each degree in the following manner:
For instance, if your order calls for a coat or a waistcoat for a slightly stooping figure, it means that the scye depth is to be lengthened $1 / 4$ inch and the strap to be left as it is.

If the figure is described as stooping, add $1 / 4$ inch to the scye depth and deduct the same amount from the strap. This makes the back part $1 / 2$ inch longer than the forepart.

If the figure is described as very stooping, add $3 / 8$ inch to the scye depth, and deduct the same amount from the strap. This makes $3 / 4$ inch difference between the back and forepart.

The reverse is the rule for the erect. If the figure is described as slightly erect, reduce the scye depth $1 / 4$ inch and leave the strap as it is.

If erect, reduce the scye depth $1 / 4$ inch and add the same to the strap, which makes the forepart $1 / 2$ inch longer than the backpart. If over-erect, reduce the scye depth $3 / 8$ inch, and add the same to the strap, which again makes up three degrees.

For the sloping shoulder, add $1 / 4$ inch to both scye depth, and strap for each degree, and for the square shoulders, reduce $1 / 4$ inch from both scye depth and strap for each degree, of course the various heights must be considered, and these will be explained in connection with the proportion table on the first and second diagrams of How To Use Block Patterns.

## DIAGRAM 25

The measurements given for block patterns are usually in the following manner:
 Breast over vest .................. 38 inches Height ...................... 5 feet 4 inches Waist . ......................... 34 inches Figure ................................ . . . Normal Hip ........................... 40 inches Shoulders ............................ . . Normal

By consulting the proportion table, we find the short measures as follows:
Scye depth ................... 9 inches Overshoulder ................... $173 / 8$ inches Waist length ................... i6 inches Blade (actual)................ II I/2 inches Strap ......................... $12^{1 / 8} 8$ inches To which add................. $11 / 2$ inches Total .......................... I3 inches
Select a block pattern to correspond with the breast measure of your order and proceed as follows:

From M to B is the scye depth for a 38 breast, 5 feet 4 inches in height, plus $3 / 8$ inch, which is $93 / 8$ inches.

Move the backpart down to $B$ and keeping even at the centre seam, mark from B to D.
From E to F is $1 / 2$ the distance of A to B . Turn the back shoulder and mark from D to F .

## THE FOREPART.

From I to J and K to L are the same as from A to B .
From $G$ to $H$ is the same as from $E$ to $F$ on backpart.
Move the pattern down, keeping it even at the front edge, and mark from J to L . Turn the front shoulder and shape from $H$ to $J$ and finish.

## SLEEVES...-DIAGRAM 26

The sleeves are used as follows:
Measure the upper part of the armscye from 6, which is the notch, to F, and from 5 , which is the front notch, to H ; in this case, the measure is $91 / 4$ inches.

Now select the sleeve to correspond with the pattern used, and draw a line from I (which is the front notch) to 2 .

From 1 to 2 is $91 / 4$ inches.
Reshape the top of sleeve as per broken line.
Now measure the width of back from 6 to the centre seam, apply the amount to 2 , and measure down to 3 , full length plus $3 / 4$ inch.

Move the pattern up to 3 , keeping it even at the front of sleeve and re-shape.


DIAGRAM 26.


## DIAGRAM

The measurements are as follows:
Full length .................. $32^{1 / 2}$ inches Sleeve .............................. 34 inches
Breast over vest . . . . . . . . ..... $3^{8}$ inches Height ............................. 6 feet
Waist ........................ 34 inches Figure ................................. Normal
Hip ....................... 40 inches Shoulders ........................... Normal
By consulting the proportion table, we find the short measurements as follows:
Scye depth ................... 1 io inches Overshoulder .................. $183 / 8$ inches
Waist length ................... i8 inches Blade............................ $111 / 2$ inches
Strap .......................... $13^{1 / 8}$ inches Add for make-up ................ $11 / 2$ inches
Total ......................... 13 inches
Measure from M to A, the scye depth, plus $3 / 8$ inch, which is $103 / 8$ inches.
From $F$ to $E$ is $1 / 2$ the distance from $A$ to $B$.
Move the backpart up to A and keeping the back pattern even at the centre seam, mark from $A$ to $C$. Turn the back pattern and mark from $C$ to $E$ and finish.

## THE FOREPART.

From J to I and $L$ to $K$ are the same distance as from $B$ to $A$.
Move the pattern up to K and keeping it even at front edge, mark from I to K ; Turn the front shoulder and shape it from I to G.

From I to $G$ is $3 / 8$ inch less than $C$ to $E$. The waist length and full length are measured out in the regular way.

## THE SLEEVE...DIAGRAM 28

Measure the upper part of armscye from 6 to E , and 5 to G , in this case the measure is $93 / 4$ inches.

Now take the same sleeve pattern and measure from 1 to $2,93 / 4$ inches. Re-shape the top of sleeve from 2 .

Measure the back width from 6 to the centre seam. Apply the amount to 2 and measure down to 3 for full length plus $3 / 4$ inch.

Move the pattern down to 3 , keeping it even at the front and re-shape as per broken line.


DIAGRAM 28.


## Block Patterns and How to Use Them

This will show how to change a pattern from a normal to an erect figure. The erect figure must be classified into at least two degrees, i.e., the erect and over-erect.

For the erect figure the change is made as follows (see diagram 29) :
Shorten the back scye from 14 to 15,16 to 17 and 18 to 19 , say $1 / 4$ inch.
Raise the forepart or lengthen the strap from 22 to $23,1 / 4$ inch; add the same $1 / 4$ inch from 20 to 21 and from 24 to 25 ; reshape as per broken lines.

The over-erect is the figure that not alone walks erect with shoulders thrown back, but whose back is small or flat and whose chest is full.

The change is therefore made as follows (see Diagram 30):
Reduce the backpart from 2 to $I$ and 4 to $3,1 / 4$ inch; also reduce the same amount from 6 to 5,8 to 7 and io to 9 ; re-shape as per broken line.

## THE FOREPART.

Reduce the side seam of the forepart from 20 to 19 and 18 to $17,1 / 4$ inch. This makes the coat $1 / 2$ inch smaller at the side.

Now add $1 / 2$ inch at the front edge of the forepart as from 16 to 15 all the way down; also add $1 / 4$ inch from I4 to I3 and form I2 to II and re-shape. Cut out a $V$ at the gorge and finish.



## Block Patterns

## DIAGRAM 33

## The Hunchback

There is no set rule for changing a pattern from a normal to a hunchback, for the reason that the largest part of the hump is not always in the same place, neither is it always in the centre of the back, but in a general way the pattern may be fixed as follows:

Select the pattern corresponding with the breast measure and height. Split the backpart and open it as from A to B say $3 / 4$ inch or I inch if the hump is very prominent, after which reduce the same amount from $C$ to $D$ and $E$ to $F$ and re-shape to $G$.

THE FOREPART.
Reduce the forepart from H to J and K to L the same amount as from C to D on the backpart.

Move the pattern down to points $\mathrm{J}-\mathrm{L}$ and re-shape as per broken line. From J to M is $3 / 8$ inch less than F to G on backpart.

DIAGRAM 34

## Normal Figure, Square Shoulders

Reduce the backpart from A to $\mathrm{B} 1 / 4$ inch and from C to D the same.
Move the backpart down to points $\mathrm{B}-\mathrm{D}$ and re-shape as from B to D and D to E .
THE FOREPART.
Reduce the forepart from I to $\mathrm{J} 1 / 4$ inch and from K to L the same.
Move the pattern down to $\mathrm{J}-\mathrm{L}$ and trace out ; also trace out from G to J .
From J to H is $3 / 8$ inch less than D to E . Finish as per broken line.



## DIAGRAM 31

Figure Stooping, Shoulders Normal
THE BACKPART.
Add from A to B and C to D $1 / 4$ inch.
Move the backpart up to points $\mathrm{B}-\mathrm{D}$ and trace out from B to D and D to L .
THE FOREPART.
Reduce the forepart from E to F and G to $\mathrm{H} 1 / 4$ inch.
Move the forepart down to $\mathrm{F}-\mathrm{H}$, and trace out from J to F and F to H broken line. From F to J is $3 / 8$ inch less than D to L .

DIAGRAM 32

## Stooping Figures with Flat Chest, Shoulders Normal

THE BACKPART
Add from $A$ to $B, C$ to $D, E$ to $F, G$ to $H$ and $I$ to $J 1 / 4$ inch and reshape as per broken line.

THE FOREPART
Add to the side of forepart $1 / 4$ inch as from K to L .
Reduce the forepart at the front edge the same amount that has been added to the side seams, which is $1 / 2$ inch.

Reduce from M to $\mathrm{N}, \mathrm{O}$ to P and R to $\mathrm{Q} 1 / 4$ inch.
From N to P is $3 / 8$ inch less than D to F on backpart. Reshape as per broken line.



## DIAGRAM 35

Figure Erect, Shoulders Square
Reduce the backpart from A to B and C to $\mathrm{D} 1 / 2$ inch, and re-shape to E .
Reduce the forepart from F to $\mathrm{H} 1 / 4$ inch.
From H to G on forepart is $3 / 8$ inch less than $D$ to $E$ on backpart; re-shape as per broken line.

## DIAGRAM 36

## Stooping Figure, Square Shoulder

These figures are usually built with large blades and flat chest. (See diagram showing stooping figure flat chest), but the actual change for the stooping figure, square shoulders with the normal blade is made as follows:

Leave the backpart as it is and reduce the forepart from 1 to 2 and 3 to $4,1 / 4$ or $3 / 8$ inch and re-shape from 5 .



## DIAGRAM 37

## Normal Figure, Sloping Shoulders

THE BACKPART.
Add from B to A $1 / 2$ inch and from $D$ to $C$ the same.
Move the backpart up to $A-C$ and re-shape as to $E$.
THE FOREPART.
Add from J to $\mathrm{I} 1 / 2$ inch and from L to K the same.
Move the pattern up to $\mathrm{I}-\mathrm{K}$ and re-shape.
From I to G is $3 / 8$ inch less than C to E . Finish as per broken line.
DIAGRAM 38

## Shoulders Sloping, Figure Erect

THE BACKPART.
Add to the scye depth $1 / 4$ inch from A to B and C to D. Re-shape as per broken line to E.

THE FOREPART.
Add $3 / 4$ inch from H to J and F to G . Re-shape as per broken line to point K .



## DIAGRAM 39

## Stooping Figure, Sloping Shoulders

## THE BACKPART.

Raise the backpart from $A$ to $B$ and $C$ to $D 3 / 4$ inch. From $B$ to $D$ is the same as $A$ to C. Re-shape to E as per broken line.

THE FOREPART.
Raise the forepart from H to $\mathrm{I} 1 / 4$ inch.
Add $1 / 4$ inch from $F$ to $G$ and re-shape as per broken line.

## DIAGRAM 40

## How to Increase the Waist

Add from $D$ to $E 1 / 4$ inch for every inch addition to the waist. Sweep from B to C pivoting at A.
From B to C is $1 / 2$ the amount of from D to E . Re-shape as per broken line.

> AMERICAN PATTERN GRADER



DIAGRAM 41

## How to Decrease the Waist Size

Reduce from D to $\mathrm{E}, \mathrm{I} / 4$ inch for every inch the waist is to be reduced. Sweep from B to C pivoting at A.
Advance from B to C $1 / 2$ the amount of D-E.
Place the forepart to points $\mathrm{H}-\mathrm{E}$ and reshape.
Add from F to G the same amount as the front edge is reduced at the bottom.

## DIAGRAM 42

## How to Exaggerate a Coat from a Block Pattern

## THE BACK.

Mark around the back from A to K and from K down to L .
Add from B to C $1 / 4$ inch for every inch exaggeration, in this case $1 / 2$ inch for 2 inches.
From F to $G$ is the same as $B$ to $C$.
From D to E is the same as B to C .
Move the pattern, the side seam to touch at G-C and E, and reshape.

## THE FOREPART.

Add from $H$ to $L$ on forepart the same as from B to $C$ on backpart.
From $J$ to $R$ and $O$ to $M$ are the same as from $H$ to I. Move the pattern forwards, the front edge to touch at $\mathrm{R}-\mathrm{I}$ and reshape.



# How to Make a Double-Breasted Forepart from a Single-Breasted Pattern DIAGRAM 43 

Drop the garge $1 / 2$ inch at $A$.
Add from B to C $21 / 4$ inches and from D to E the same.
From $E$ to $G$ is $I$ inch.
Place the square to points $\mathrm{F}-\mathrm{G}$ and square down to H . Re-shape as per broken line.

How to Make a Norfolk Coat from an Ordinary Sack Coat Pattern<br>DIAGRAM 44

After the pattern is cut out as usual, proceed as follows:

## THE BACKPART.

Point $F$ is half way between $E$ and $G$; from $E$ to $A$ is $I 1 / 4$ inches; $G$ to $B$ is the same; cut the back through as marked; now add a seam to the lower portion of the back and add the same to the yoke.

The forepart is made in the same way. From K to J is I inch; I is half way between H and J ; from H to C is $\mathrm{I} / 2$ inch; K to D is the same; cut the pattern through as from C to I and from I to D; add a seam to the lower part of the front and the same to the yoke. .



## How to Increase the Waist Length in a Frock Coat

Apply the waist length desired as from O to B .
From C to D is the same as from A to B.
Move the back pattern down to $B-D$ and re-shape.

## THE SIDEBODY.

From E to F and G to H are the same as from A to B. Move the sidebody down to $\mathrm{F}-\mathrm{H}$ and re-shape.

## THE FOREPART.

From I to J and K to L are the same as G to H .
Move the front pattern down to J-L, keeping it even at the front edge and re-shape.


DIAGRAM 46.

## How to Shorten the Waist of a Frock Coat

Apply the waist length desired from O to B .
From C to D is the same as from A to B .
Move the backpart up to B-D and re-shape.
THE SIDEBODY.
From $E$ to $F$ and $G$ to $H$ are the same as from $A$ to $B$.
Move the sidebody up to $\mathrm{H}-\mathrm{F}$ and re-shape.
THE FOREPART.
From I to J and K to L are the same as G to H .
Move the front pattern up to J-L, keeping it even at the front edge and re-shape.


## Frock Coat for Stooping Figure, Shoulders Normal

 THE BACKPART.Add from $A$ to $B$ and $C$ to $D 1 / 4$ inch.
Move the backpart up to points B-D and trace out from B to D and D to J.

## THE FOREPART.

Reduce the forepart from E to F and G to $\mathrm{H} 1 / 4$ inch.
Move the forepart down to $\mathrm{F}-\mathrm{H}$, and trace out from N to F and F to H broken line. From F to N is $3 / 8$ inch less than D to J .


DIAGRAM 48.

## Frock Coat for Stooping Figure with Flat Chest, Shoulders Normal

## THE BACKPART.

Add from $A$ to $B$ and $C$ to $D, 1 / 4$ inch.
Add at $E$ and $F$ the same and re-shape.
THE SIDEBODY.
Add $1 / 4$ inch at G and H and the same at H and I , and re-shape.
THE FOREPART.
Add to the side of forepart $1 / 4$ inch at J and K .
Reduce the forepart at the front edge the same amount that has been added to the side seams which is $1 / 2$ inch.

Reduce from R to S and P to $\mathrm{Q}, 1 / 4$ inch.
Reduce the same at T and re-shape,


DIAGRAM 49.

## Frock Coat for Hunchback

Select the pattern corresponding with the breast measure and height. Split the backpart and open it as from A to B say $3 / 4$ inch or I inch if the hump is very prominent, after which reduce the same amount from C to D and E to F and reshape to $G$.

## THE FOREPART.

Reduce from H to J the same as C to D on backpart.
From K to L is the same as H to J .
Place the pattern to points $\mathrm{L}-\mathrm{J}$ and trace out: also trace out the shoulder from J to N .
From J to M is $3 / 8$ inch less than F to G on backpart. Reshape as per broken line.


DIAGRAM 50.

## Frock Coat for Over Erect Figure, Shoulders Normal

## THE BACKPART.

Reduce the backpart from A to B and C to $\mathrm{D}, 1 / 4$ inch.
Reduce at E and $\mathrm{G} 1 / 8$ inch and re-shape as per broken line.
THE SIDEBODY.
Reduce at F and 19 , $1 / 3$ inch.
Reduce the same amount from 19 to 20 and re-shape.
THE FOREPART.
Reduce the forepart at 16 and $211 / 8$ inch.
Add from 12 to 13 and 15 to $141 / 4$ inch, which is the amount the sidebody and side of forepart have been reduced.

Add from 6 to 7 and 8 to $91 / 4$ inch and reshape as per broken line.

# How to Make a Square Shouldered Inverness Out of a Regular Overcoat 

Select an overcoat pattern of the size required and proceed as follows:
THE BACKPART.
Reduce the backpart from B to A and D to C until the side seam is straight.

## THE FOREPART.

Add from M to N and P to Q the same amount as the backpart is reduced from B to A and D to C . Extend the breast line as to U .

From K to R is the sleeve length.
Sweep from $R$ forward to $S$ and back to $U$, pivoting at $F$.
From S to T is I inch. From K to L is 3 inches.
Square back from $L$ and shape the armscye from $G$ through $H$ and back to $O$.
From G to H is $1 / 4$ breast. Sweep from G to J, pivoting at H .
From $G$ to $J$ is $I / 2$ inches. Draw a line from $U$ to $J$. Add $3 / 4$ inch rounding to line $U-J$ and finish.


# How to Use Block Patterns How to Make a Round Shouldered Inverness Out of a Regular Overcoat Pattern 

Select an overcoat pattern of the size required and proceed as follows:

## THE BACKPART.

From A to B is $11 / 4$ inches. Shape the backpart through B and the notch as indicated.

## THE CAPE.

Extend the breast line from E back. From E to M is $1 / 2$ breast. Draw a line from M to K. Point N is half way between M and K . From N to O is $\mathrm{I} 1 / 4$ inches.

K to L is $3 / 4$ inch. Shape the cape from M through O and L to J. Now mark around the pattern from $J$ to $T$, around the gorge and down the front edge. From $E$ to $P$ is the sleeve length. Sweep from $P$ forwards to $R$ and back to $Q$, pivoting at $T$. From $R$ to $S$ is I inch. Re-shape as indicated.

THE FOREPART.
From E to F is $3^{1 / 2}$ inches. Square back from F to G. Shape the armscye from J to G. From C to D on backpart is the same as H to G on forepart. Notch the back at D .


DIAGRAM 52.

## Circular Cape

Square down and out from B.
Take overcoat pattern of the size required and place the center of back pattern to line A-C; place the forepart, the front edge to touch at line B-D with the back and shoulder pitch to touch as at point 4 ; mark around the back as from $A$ to $U$ and from $U$ to 4 and the forepart from 4 to I and from I to 24 .

Point 24 is where the notch comes on the forepart; add from $U$ to 7 on the backpart $1 / 4$ inch and reduce the front shoulder from I to 25 the same; re-shape as indicated.

Reduce the cape at the front edge at $24-\mathrm{Z}$, I inch; draw a line from A to 24 ; point O is half way between A and 24 ; from A to $C$ is the length of the cape desired; sweep from $C$ to $Z$, pivoting at $O$; from $C$ to $E$ is $1 / 2$ inch; $Z$ to $I$ is $I$ inch; re-shape the cape and finish.


DIAGRAM 53.


## Shoulder Cape

Select the overcoat pattern for the size desired and proceed as follows:
Draw line A-C; place the backpart pattern, the edge to touch at A-C, and mark around it as from $A$ to $D$ and $D$ to $E$; line $B$ is the breast line; from $B$ to $F$ is $1 / 2$ breast; $F$ to $G$ is $1 / 3$ breast.

Draw a line from D through G ; from A to C is the length of the cape desired; sweep from C to H , pivoting at D ; from H to I is $23 / 4$ inches; from I back to J is I inch; shape the side as indicated from D through E to J and shape the bottom of the cape from C to J .


THE FOREPART.
The forepart is made as follows:
Place the forepart pattern on a sheet of paper and mark around it as indicated.
From $A$ to $D$ is $1 / 4$ breast ; from $A$ to $B$ is $I$ inch; A to $C$ is the same; from $D$ to $C$ is the same length as $D$ to $B$; line $E$ is the breast line; from $E$ to $O$ is $I$ inch; $O$ to $F$ is $3^{1 / 2}$ inches; from $F$ to $G$ is $1 / 2$ breast; $G$ to $H$ is $1 / 3$ breast; draw a straight line from $C$ through $H$ to get $J$; from $J$ to $K$ is $I$ inch; sweep from $K$ to $L$, pivoting at $P$; from $L$ to $M$ is $I$ inch and from $M$ to $N$ is the same; from $P$ to $B$ and $C$ to K of the forepart is $1 / 2$ inch more than $D$ to $J$ of the backpart. Shape the front of cape and finish as represented.


## Shoulders Normal, Figure Erect

THE BACKPART.
Reduce the scye depth $1 / 4$ inch from $A$ to $B$ and $C$ to $D$. Re-shape as per broken line to point E .

THE FOREPART.
Add $1 / 4$ inch from $H$ to $G$ and $F$ to J . Re-shape as per broken line to J.


Flat Blade, Full Breast
THE BACKPART.
Reduce from A to B $1 / 4$ inch, and re-shape as per broken line to E .
THE FOREPART.
Add from O to P and M to $\mathrm{N} 1 / 2$ inch.
Reduce from I to J and K to $\mathrm{L} 1 / 2$ inch and re-shape as per broken lines.


Shoulders Square, Figure Erect THE BACKPART.

Reduce the scye depth $3 / 8$ inch from A to B and C to D . Re-shape as per broken line to E . THE FOREPART.

Reduce $1 / 8$ inch from $G$ to $H$. Re-shape as per broken line to point $F$.


Shoulders Sloping, Figure Erect THE BACKPART.

Add to the scye depth $1 / 4$ inch from $B$ to $A$ and $D$ to $C$. Then re-shape as per broken lino to E.

THE FOREPART.
Add $3 / 4$ inch from H to G . Then re-shape as per broken line to F .


DIAGRAM 60.

Stooping Figure, Normal Shoulders
THE BACKPART.
Add from $A$ to $B$, and $C$ to $D 1 / 4$ inch.
From B to D is the same as A to C.
Re-shape to point $E$, as per broken line.

## THE FOREPART.

Reduce the forepart from H to $\mathrm{I}, 1 / 4$ inch.
Add $1 / 4$ inch from $G$ to $F$, and re-shape.


DIAGRAM 6i.

Stooping Figure, Sloping Shoulder THE BACKPART.

Add from $A$ to $B$ and $C$ to $D 3 / 4$ inch and re-shape to $E$. THE FOREPART.

Add from G to $\mathrm{F} 1 / 4$ inch and from I to H the same. From $H$ to $F$ is $3 / 8$ inch more than from $D$ to $E$.
Re-shape as per broken line.


Stooping Figure, Square Shoulders
THE BACKPART.
Reduce the back from B to A $1 / 4$ inch.
From D to C is the same as A to B .
The distance from A to C is the same as B to D. Re-shape.
THE FOREPART.
From $H$ to $I$ is $1 / 2$ inch, re-shape as per broken line.


## Large Blade, Flat Breast

THE BACKPART.
Add from G to H and I to $\mathrm{J} 1 / 2$ inch.
Add from E to F $1 / 4$ inch and re-shape as per broken line.
THE FOREPART.
Reduce from M to N and K to $\mathrm{L} 1 / 2$ inch and re-shape as per broken line.


## A Vest for a Hunchback

THE BACKPART.
Reduce from A to B and E to F 1 inch, and re-shape as per broken line to G.
Split the backpart as from C to H and open it until the distance from C to D is I inch.
THE FOREPART.
Reduce the front shoulders from K to L I inch and re-shape it as per broken line from I to L.

From L to J is $1 / 2$ inch more than F to G . Re-shape armscye.


DIAGRAM 65.

## How to Make a Clerical Waistcoat Out of an Ordinary Pattern

Point A is the shoulder point.
Place the square to the breast line, and square from $B$ to $E$.
Square from B forward to C.
From B to C is $1 / 6$ breast plus $1 / 2$ inch.
Shape the front edge from C down.
From C to D is $1 / 6$ breast plus $1 / 2$ incin.
B to F is $1 / 6$ breast. Draw a line from F to D , and shape the gorge.
THE COLLAR.
From D to H is $\mathrm{I} / 2$ inch.
Draw a line from $H$ through $B$ to get $I$.
From I to J is $3 / 4$ inch.
Shape the collar from J to H and finish, making the height of the same as desired.


DIAGRAM 66.

## A Clergyman's Waistcoat to Button on the Side

Point A is the shoulder point.
From $A$ to $B$ is $3 / 4$ inch.
Place your square to the breast line and square from $B$ to $E$.
Square forward from B to C $1 / 6$ breast, plus $1 / 4$ inch.
Reduce the front at G and J one seam or $1 / 4$ inch, and shape the front edge from C to J . From C to D is $1 / 6$ breast plus $1 / 2$ inch.
B to F is $1 / 6$ breast. Draw a line from F to D and shape the gorge.
The collar is made the same as on the ordinary clergyman's vest.
The piece for the button stand is cut as follows:
Follow the side of forepart, shoulder and armscye as indicated.
From B to K is I inch. L is $\mathrm{I}^{1 / 4}$ inches from the side seam. Cut the piece as from L to K and finish. The buttonholes are cut in the forepart and the buttons are placed on the small piece.


DIAGRAM 67.

## How to Make a Doubled-Breasted Vest Out of a SingleBreasted Pattern

Go back from A to B $1 / 2$ inch, and from E to D the same.
Draw a line from B through D to F .
From C to J is 3 inches. F to G is $\mathrm{I} 1 / 4$ inches.
Draw a line from $J$ to $G$.
From J to I is $5 / 8 \mathrm{inch}$.
G to H is the same.
Re -shape the gorge and finish the bottom.


DIAGRAM 68.

How to Make a Double-Breasted Dress Waistcoat Out of a Single-Breasted Block Pattern

From 5 back to. 4 is $1 / 2$ inch. 7 back to 6 is the same.
Draw a line from 4 through 6 to get 10 .
From io to 11 is $I^{1 / 4}$ inches. II to 12 is $3 / 4 \mathrm{inch}$.
6 to 8 is $21 / 2$ inches, and 8 to 9 is $3 / 4$ inch.
Draw lines from 8 to II , and from 9 to 12 .
From 5 back to 3 is $1 / 6$ breast.
Draw a line from 2 through 3 down.
Apply the opening measure plus $1 / 2$ inch from $A$ to $B$ and 2 to 6 ; and the full length plus $I^{1} / 4$ inches to 10 .

Sweep from 10 to 12 and back, pivoting at 4, and re-shape as indicated.


DIAGRAM 69.

## How to Make a Dress Vest Out of a Regular Pattern

From 6 to 5 is $31 / 2$ inches.
Place the bottom buttonhole at 5 . The top buttonhole place at point 4 , which is $1 / 2$ inch above the waist line.

From 2 to 3 is $1 / 6$ breast.
Draw a line from I to 3 and shape the gorge.


## How to Reduce the Rise; Also How to Shorten or Lengthen Trousers

THE FRONTPART.
Reduce the rise from A to B as much as desired.
From $C$ to $D$ is the same as from $A$ to $B$.
Move the pattern down to $\mathrm{B}-\mathrm{D}$ and measure $1 / 4$ of waist from B to D .
THE BACKPART.
Reduce the rise from V to W and X to Y the same as the forepart is reduced from A to B .

## How to Shorten Trousers

Apply the inseam length from the crutch down to H .
From E to F is the same as G to H .
Move the pattern up to $\mathrm{F}-\mathrm{H}$ and re-shape.
From $L$ to $M$ and $J$ to $K$ is half the distance of $G$ to $H$.
THE BACKPART.
From $N$ to $Q$ and $O$ to $P$ is the same as $G$ to $H$ on forepart.
From $S$ to $T$ and $R$ to $U$ are the same as $L$ to $M$ on forepart.
DigMove the back pattern up to $\mathrm{P}-\mathrm{Q}$ and re-shape.


The size of trousers is indicated by the seat measure, so in using block patterns always take the pattern corresponding with the seat measure and alter as follows:

To reduce the waist:
THE FRONT PARTS.
From C to B is $1 / 4$ of waist measure, i.e., 9 for 36 or 10 for 40 ; re-shape as per solid line.

THE BACKPART.
From V to W is $1 / 4$ waist plus $21 / 4$ inches, re-shape as per solid line, and take out a $3 / 4$ inch V as indicated.

To reduce the knee:
Point F is half way between H and J .
From F to I is $1 / 4$ of knee desired. F to G is the same; re-shape as per broken line.

## THE BACKPART.

Point $O$ is half way between $Q$ and $S$. From $O$ to $R$ is $1 / 4$ of the knee desired plus $1 / 2$ inch for seams. $O$ to P is the same; re-shape.

To increase the size of knee proceed in the same manner.


The size of trousers is indicated by the seat measure, so in using block patterns always take the pattern corresponding with the seat measure.

To increase the waist, proceed as foilows:

## THE FRONTPARTS.

Point 9 is half way between 3 and 4 .
From 9 to 5 is $1 / 8$ of the full waist, $i$.e., 5 for 40.
9 to 2 is the same.
From 5 to 6 is $1 / 2$ inch more than 4 to 5 .
Draw a line from 2 to 6 and re-shape as per broken line.

## THE BACKPART.

If the seat measure is only $I$ or 2 inches larger than the waist measure, leave the $V$ out of the backpart, and measure as follows:

From 7 to 8 is $1 / 4$ waist plus I inch for seams. Re-shape.


## How to Make Peg Top Trousers Out of a Normal Block Pattern

Take a normal pattern with the seat measure corresponding, and proceed as follows: After measuring and marking the proper lengths apply the knee measure required from N to E.

Draw a line from $F$, through $E$, to get point $C$, or add from $B$ to $C$ say I inch, or as much as wanted, and shape from $A$ through $C$ and $E$ down to $F$.

## THE BACKPART.

From $K$ to $L$ is the same as $D$ to $E$ on forepart. $H$ to $J$ is the same as $B$ to $C$ on forepart. Shape from G through J and L down to M .


## How to Make Trousers for a Bow Legged Person

Ascertain the amount the legs are bowed by having the person stand with his feet close together. Measure as nearly as you can what space is between the knees and alter your pattern as follows:

Split the pattern as from A to B and open (see diagram B) from C to D $1 / 4$ inch for every inch space between the knees, straighten the inseam by filling it in slightly from $E$ to $F$.

Open the backpart from $G$ to $\dot{H}$ the same as the frontpart is opened from C to D .


## TOE IN.

For a man whose toes point inward the crease of the trousers turns outward.
The alteration on the block pattern should be made as follows:
Add from 4 to 5 on the forepart say $3 / 4$ inch more or less as may be necessary, and reduce the same amount on the outside seam from 2 to 3 . Re-shape as from A to 3 and B to 5 , broken lines.

## THE BACKPART.

Add to the outside seam from 7 to 6 the same amount as the forepart has been reduced from 2 to 3 . Reduce the same amount from 9 to 8 and re-shape as per broken lines.


## TOE OUT.

For the man whose toes point outward the crease of the trousers falls to the inseam.
The alteration on the block pattern should be made as follows:
Add to the outside seam of forepart from 3 to 2 , say $3 / 4$ inch, or as much as necessary. Reduce the same amount from 5 to 4 on the inseam and re-shape as per broken line.

THE BACKPART.
Reduce the outside seam of the backpart from 6 to 7 , the same amount as the forepart is increased from 3 to 2 , add the same amount from 8 to 9 on the inseam and re-shape as per broken lines.


The facing for broad falls are cut as follows:
After the side pockets are marked and notched on the forepart, mark from C to D 1 inch. F to H is $21 / 2$ inches, H to J is $3 / 4$ inch, F to G is the same. Shape the facing as indicated.
The narrow falls are cut as follows:
Line $\mathrm{D}-\mathrm{F}$ is the center of forepart.,
From $D$ to $F$ is the same $A$ to $C$.
Square back from F. From F to E is 2 inches.
Draw a line from $D$ to $E$.
$D$ to $G$ is $21 / 2$ inches. If to $K$ is the same. Draw a line from $G$ through $N$
From K to I is $3 / 4 \mathrm{inch}$. H to J is the same. Draw a line from J to L .
Cut in the forepart from $D$ to $E$ and finish as represcmed.

## How to Make Knickerbockers from a Regular Trouser Pattern

Select a block pattern to correspond with the seat measure and proceed as follows:

## THE FOREPART.

Line C-J is the knee length.
From $C$ to $D$ is $21 / 2$ inches. $J$ to $M$ is the same.
D to E is 4 inches. M to O is the same.
P is half way between E and O .
9 is half way between B and H.
Draw a line from 9 to P .
From P to N is $1 / 4$ of the calf measure.
P to R is the same.
8 to L is $1 / 4$ of small of knee measure, 8 to S is the same.
Draw a line from $L$ to $N$.
From $S$ to $T$ is $I$ inch. $R$ to $Q$ is the same.
Draw a line from T to Q .
H to I is $3 / 4$ inch. B to F is $\mathrm{I} 1 / 4$ inches.
Shape the forepart as per solid line.

## THE BACKPART.

Line $\mathrm{II}-\mathrm{Y}$ is the knee length.
From Y to 2 is $21 / 2$ inches. 2 to 7 is 4 inches.
Draw lines across from 2 and 7 .
From Y to Z on backpart is the same as J to K on forepart.
2 to 3 on backpart is the same as $M$ to $L$ on forepart. 7 to 6 on backpart is the same as O to N on forepart.

Draw a line from 3 to 6 .
W to X is $3 / 4$ inch. Shape the inseam as indicated.
Apply the small of knee measure plus 1 inch from L to $T$ on forepart and 3 to 4 on backpart.

Apply the calf measure plus I inch from N to Q on forepart and 6 to 5 on backpart.
From V to $U$ is $I T / 4$ inches. Shape the backpart and finish.


DIAGRAM 79.

## DIAGRAM 80

## How to Make Golf Breeches Out of an Ordinary Block Pattern

Select a block pattern to correspond with the seat measure and proceed as follows:
Line C-F is the knee line.
From C to D is 5 inches. F to E is the same. Draw a line from D to E . Point H is half way between D and E . Square up from H to locate J .

From J to M is $1 / 4$ of knee measure. J to N is the same.
From B to O is $\mathrm{I} 1 / 4$ inches, G to P is $1 / 2$ inch.
From H to L is $1 / 2$ inch. H to K is the same.
From L to I is $1 / 4$ bottom plus $1 / 4$ inch. K to 10 is the same. Cut out a V between L and K and shape the forepart as indicated.

## THE BACKPART.

From R to W is 5 inches. S to X is the same.
Draw a line from X to W . Point T is half way between X and W . Square up from T to get $Q$. From $Q$ to 3 is $1 / 4$ of knee plus $1 / 2$ inch.
$Q$ to 2 is the same.
From 4 to 5 is. $I 1 / 4$ inches. 8 to 9 is $1 / 2$ inch and 6 to 7 is the same.
From T to U is $1 / 2$ inch. T to V is the same.
Cut out a V between U and V as indicated.
From $U$ to $Z$ is $1 / 4$ bottom plus $3 / 4$ inch.
V to Y is the same. Shape the backpart and finish.


DIAGRAM 80.


FIGURE A.

## The Low Shoulder

Figure A shows a fault which is caused by one shoulder being lower than the other, as seen on illustration.

The coat on the low side is tight over the hip, and the fulness therefrom is carried over to the high shoulder side. This not alone causes the low side to wrinkle under the arm, but also to make the coat hang to one side.

How to alter this defect, see Diagram A.
Ascertain the difference in the shoulder heights and proceed as follows:
Let us say the difference between the high and the low shoulder is $3 / 4$ inch.
Split the backpart as from A to D, overlap as from D to E, $3 / 4$ inch and re-shape.

## THE FOREPART.

Split the forepart as from B to $G$ and overlap from $G$ to $F, 3 / 4$ inch, which is the difference between the high and the low shoulder.

The alteration in the frock coat (Diagram AI) is made in the same way. Place the sidebody alongside of the backpart in the same position in which they were cut, and split and overlap the same way as the sack coat.


If the difference between the low and the high shoulder is not so great, alter as follows (Diagram A2):

Move the backpart down as from I to $2,3 / 8$ or $1 / 2$ inch, reduce the back shoulder from 3 to 4 the same amount. Make the distance from 4 to 6 the same as from 3 to 5 , leaving the front shoulder as it is.

Should this alteration be required when the coat is finished, or should the goods be of a striped material, make the alteration as follows (Diagram A3):

Lower the backpart as from 1 to 2 (as previously explained) the difference between the high and low shoulder, reduce the shoulder from 6 to 5 the same amount, make the backpart from 5 to 7 the same length as the original backpart is from 6 to 8 .

## THE FOREPART.

Reduce the side of forepart from 3 to 4 the same amount as the backpart was reduced from I to 2. From 9 to A is the same as from 3 to 4 . Place the forepart pattern at points 4-A and re-shape as per broken line.


DIAGRAM A2.



FIGURE B.
FIGURE Bi.

Figures B and Bi show the front and back of the same coat.
At the back the coat catches, and is too tight at the hip, wrinkles at the upper part of the side seams, and shows a wrinkle under the collar.

At the front the coat looks as if it were made for a fat man ; it is all too large at the lower button, and sticks out below the waist.

The cause of these defects is the back is too long for the foreparts.
How to alter, see Diagram B.
We will now show how to make these alterations in detail.
As the back shows a slight wrinkle under the collar, there must be too much shoulder slope, or a tightness over the shoulder pitch. We will therefore reduce the backpart from 1 to 2 and 3 to 4 about $3 / 8$ inch and leave point 5 as it is.


We will now consider the forepart.
As the coat is too large in front below the waist, it shows that the tightness at the hip is only caused by a poor balance, i. e., if the fulness of the front edge were transferred to the side, there would be no tightness at the hip; therefore, the proper alteration is to swing the forepart so as to bring the front fulness to the side.

To do this, proceed as follows:
Should there be any tightness at the first button, all that is necessary is to crook and raise the shoulder (see Diagram B-I, broken line) about $1 / 2$ inch. But if the first button is right, then make the alteration as shown on Diagram B.

Raise the shoulder from 9 to 8 and 7 to 6 about $1 / 4$ inch, and drop the backpart from 14 to 15 the same amount; lengthen the forepart from 13 to 12 the same as the back is lowered from 14 to 15 , which is $1 / 4$ inch.



DIAGRAM C.

Figure C shows the back of a sack, coat, with what is called the "horse shoe" wrinkles. This defect is caused by the backpart being too short for the forepart.
How to alter, see Diagram C.
As the collar and shoulders seem to be all right there is nothing to be done except to lengthen the back, which is done in the following manner:

Cut the back down from 4 to 5 , say $1 / 2$ inch, and move point $5 u p$ to point 8 . After the back is moved up the shoulder will become a little too loose, so reduce the shoulder from I to 2 about $1 / 4$ inch. Lengthen the back from 6 to $7,1 / 2$ inch.


## FIGURES D and DI

Defect-The wrinkles at the back of the neck, as illustrated by Figures D and Di arise from entirely different causes, as will be seen. See Figure D.

Cause-The collar is just right for height; yet there is a surplus amount of cloth between the shoulder-pitch and the neck, which shows that there is too much back length from the shoulder-pitch up; and yet, if the back scye were too deep, the backpart would drop and show a wrinkle at the back of the armscye; but as such is not so in this case, then the coat is too tighi at the shoulder-pitch and must be altered as follows. (See Diagram D.)

To alter-Reduce the backpart from A to B and C to D, say, $1 / 2$ inch, re-shape as per broken line to E , make the back slightly wider at F , so as to retain the shoulder width, and let out the front shoulder as from H to G, say $1 / 4$ inch.

Fig. Di-In this case the wrinkle is different from the preceding, and shows that it is caused by the stretching of the collar stand from the fact that the collar lacks in height the same amount that the wrinkle takes up.

The collar stand, as cut and after the seam is sewed up, will fit to the back as on Figure Diagram D2; but when the stand is stretched, it becomes rounder than the back will allow (see Diagram DI), and thus forces the back away from its proper place and leaves a wrinkle underpeath.

To alter-So, in order to fix this wrinkle, put in a new collar and don't stretch the stand.




FIGURE E.


DIAGRAM E.

Figure E shows a coat that flares out at the lapel. The cause of this defect is that the shoulder is too crooked. How to alter, see Diagram E.

Sweep from B to C pivoting at A ; make the distance from B to C $1 / 2$ inch, or as much as is necessary. Lower the gorge from $F$ to $G$ the same amount as from $B$ to $C$. From $C$ to $D$ is the same length as from B to E. Re-shape as per broken line.


FIGURE $F$.

Figure F shows a coat that has too much overlap at the front.


How to alter, see Diagram F.
Should the coat have one inch too much overlap, straighten the shoulder $1 / 2$ inch, as from A to B, which is half of the excess overlap. Reduce from E to F, C to D, I to J and G to H the same amount.


FIGURE G.

Figure G shows a fault that has been very common lately, and for the want of a better name, some cutters call it "carbuncles."

These wrinkles are caused by the stretching of the front shoulder without adding extra height to the shoulder pitch.

The stretching of the front shoulder is not good at any time and is positively bad on striped materials, for no matter how careful you are, you cannot keep the stripe straight; but if the gorge is stretched and the shoulder pitch made higher, these wrinkles would disappear. But in order to stretch the gorge, it is necessary to first advance the shoulder point, i. c., straighten the shoulder.


DIAGRAM G.

This change may be made in the pattern before the coat is cut, or as an alteration after the garment is finished.

To alter see Diagram G.
Raise the shoulder pitch from 8 to 9 about $3 / 4$ inch; straighten the shoulder as from io to II half that amount; make the length from 7 to II the same as from 7 to io and re-shape.


FIGURE H.
FIGURE Hi.

## Alterations and How to Make Them

Fault: Coat wrinkles across the back under the collar and at the front shoulders. This fault is more common in the summer time, as at that season of the year most people wear turn-down collars and no waistcoats.

On the turn-down collar, the outer leaf invariably sticks away from the collar band, and leaves a vacuum between the shirt and the outer edge of the collar.

Therefore, when a coat is put on over a collar of that kind, especially when no waistcoat is worn, the coat collar cannot come close to the neck, because the shirt collar keeps it away and causes the wrinkle.

Naturally, if a waistcoat was worn the wrinkle might still be there, but the back and shoulders of the waistcoat would act as a pad (so to speak) filling the vacuum, and minimizing the wrinkle.

But the actual cause of the trouble is that the backscye is too deep, and in measuring for a summer coat, the scye depth should begin just where the collar edge ends.

If an alteration is to be made on a garment of that kind it should be made as follows:
Shorten the scye depth as from I to 2 and 3 to 4 (Diagram H) say half an inch, more or less, according to the size of the wrinkle.

A tight shoulder will often make a wrinkle across the back, in which case leave out the front shoulder, as from 5 to 6 , and re-shape as per broken lines.

In case there is no outlet on the shoulder, make your alteration as in Diagram Hi. Shorten the scye depth from 1 to 2 and 3 to 4 , half an inch, shorten the front shoulder from 6 to 7 the same, and re-shape as per solid lines.




FIGURE I.


Figure I shows a coat with what some tailors consider too much fold over the breast.
While we do not consider this a fault, yet we have so many inquiries as to how to reduce this fold, that we herewith show how to make the alteration.

Diagram I shows how the alteration is to be made.
Pare out the armscye from $B$ to $A$, say $1 / 2$ inch; reduce the side seam $C$ to $D$ the same and re-shape as per broken line.


FIGURE J.
FIGURE Ji.


## FIGURE J1

Fault-This sleeve wrinkles from the top of the undersleeve upwards.
Cause-It has too much sleeve head.
How to alter-(See Diagram Ji)-Reduce the sleeve head from I to 2 , say $1 / 2$ inch, and re-shape as per broken line. Reduce the undersleeve from 3 to 4 the same amount as the upper sleeve and re-shape.

## FIGURE J

Fault-The sleéve draws in long folds from the sleeve head down, both front and back.
Cause-The sleeve head is too short.

## DIAGRAM J

How to alter-Reduce the sleeve from $A$ to $B$ and $C$ to $D$, say $1 / 2$ inch, and re-shape as per broken line. Reduce the under sleeve from $G$ to $H$ and $E$ to $F$ the same amount and re-shape. Lengthen the sleeve from K to L and I to J the same, $1 / 2$ inch.


FIGURE K.


Figure K shows two defects.
First-The coat shows a wrinkle under the collar.
Second-It shows a slight wrinkle on the side seam and does not drape well at the bottom. The cause of this defect is the back is too long.
How to alter, see Diagram K.
Shorten the back from A to B and C to D $1 / 2$ inch more or less as may be necessary.
From B to D is the same as A to C.
From E to F is $1 / 2$ the distance of A to B .
Re-shape the back as per broken line.
The shoulder from $G$ to $H$ is $3 / 8$ inch less than D to $F$. Shrink the backpart between J and K as indicated.


FIGURE L.


## FIGURE L

Fault-The backpart wrinkles at the sides.
Cause-The backpart is too short for the forepart.

## DIAGRAM L

How to alter-Cut the backpart down from A to B, say $1 / 2$ inch, and move point $B$ of backpart up to point $A$ of forepart, reduce forepart from $C$ to $D$ as much as necessary.


FIGURE M.


## FIGURE M

Fault-Too much lap at the breast and not enough at the bottom. Cause-A crooked shoulder.

DIAGRAM M
How to alter-Sweep from $A$ to $B$, pivoting at $G$. Advance from A to B, say $3 / 4$ inch.
Drop, the gorge from C to $\mathrm{D} 3 / 4$ inch.
From B to E is the same as A to F,
Re-shape as per broken line,


FlGURE N.


DIAGRAM N .

The fault shown on Figure N is one that is frequently seen on overcoats, and many otherwise faultless garments have this defect. When the garment is first put on and the undercoat pulled down, the collar sets up well and ciose to the neck, but after a little while it seems to gradually slide down and show the collar of the undercoat. The cause of this defect is that the backpart is too short.

How to alter (see Diagram N).
Lengthen the back from A to B and C to D say $1 / 2$ inch, more or less as may be necessary. From $G$ to $F$ on forepart is $1 / 2$ inch less than $D$ to $H$ on backpart. Re-shape as per broken line.


Fault-The coat wrinkles at the sides and hangs away from the waist. Cause-The backpart is too short for the forepart.
How to alter (see Diagram O)


DIAGRAM O.


DIAGRAM Oi.
If there is sufficient outlet on the top of back, leave out from A to B and C to D, say, $3 / 4$ inch. The distance from B to D ought to be the same as from A to C, which would bring it to E, but as there never is any outlet on the back shoulder, make the width from B to D as wide as you can. If the backpart is much too short, the front shoulder ought to be somewhat shortened, but as in this case the backpart from B to D is somewhat too narrow, leave the front shoulder as it is, and the result will be the same as if the front shoulder were shortened.

Another way to make this alteration is as follows (see Diagram OI): Lengthen the back waist from A to B, say, $3 / 4$ inch; bring point B to F; baste up the side seam and leave out the sidebody from $C$ to $D$ as much as necessary.


FIGURE P.


FIGURE $P$
Fault-The coat wrinkles under the collar and down the sides. The center vent opens. Cause-The backpart is too long for the forepart.
How to alter (see Diagram P) -Shorten the back from A to B and C to D, say $1 / 2$ inch. Lengthen the front shoulder from $F$ to $G$ and $H$ to $J$, say $1 / 2$ inch, or as much as necessary.


FIGURE Q.


## Fat Man's Double-Breasted Frock

Fault-The skirt hangs close to the sides and flares at the front.
Cause-The skirt is too short at the front.
How to alter-See Diagram Q.
Shorten the skirt from solid line B to broken line C, say $1 / 2$ inch or $3 / 4$ inch and re-shape to point A. Lengthen the skirt from E to F , the same amount as it has been shortened from $B$ to C .


FIGURE R.


DIAGRAM R.

Figure R shows the back skirts over-lapping ; in which case alter, as on Diagram R.
From 2 to 3 is $1 / 2$ the distance the skirts overlap, say $3 / 4$ inch if the overlap is $1 \frac{1}{2}$ inches.
Reduce the skirts, beginning with nothing at the point of sidebody, and shape gradually as per broken line 3 .


Figures S and SI are the back and front view of the same coat.
The fault is-Wrinkles on the forepart from the sides slanting upwards, and on the back slanting downwards, and the skirts open at the back.

The cause is-The fronts are too short for the backpart, or the backpart is too long for the fronts, which is one and the same fault.

How to alter-Let me be plainly understood when I say the fronts are too short for the back. I do not mean to say they are too short in the length, on the contrary, they may be full long, and yet too short to balance with the back

As there are several ways to alter this fault I will here give three diagrams showing three different ways to alter it.

If the fronts are long enough for proper length, alter as follows:


DIAGRAM S.


DIAGRAM $\mathrm{Si}_{1}$


## DIAGRAM S

Reduce the back from $A$ to $B$ and $C$ to $D$, say $1 / 2$ inch or $3 / 4$ inch.
From E to F reduce $1 / 2$ the amount, widen the back slightly at F , and re-shape as per broken line.

## DIAGRAM SI

If the fronts are too short for proper length alter as on Diagram Si.
Reduce the back from 2 to 3 and 4 to 5 , say $1 / 4$ inch.
Let out the outlet from 8 to 7 , and 10 to 9 , say $1 / 2$ inch, and re-shape as per broken line.
This alteration will require a new collar.
It sometimes happens that there is no more goods for a new collar, or that there is no outlet on the shoulder, in which case alter as on Diagram S2.

## DIAGRAM S2

Cut down the armscye from $\bar{F}$ to $G$, say $1 / 2$ or $3 / 4$ inch. Lengthen the fronts from H to J and K to $\mathrm{L}, \mathrm{M}$ to N , and O to P , the same amount and re-shape as per broken line.


FIGURE T.


DIAGRAM T.

## DIAGRAM T

Fault-The skirts flare at the front edge.
How to alter-If the pleats are right, and do not overlap, alter as on Diagram T.
Reduce the skirt at the waist seam as from 2 to $3,3 / 8$ or $1 / 2$ inch, and re-shape as per broken line.


FIGURE Uı.

FIGURE U.

Fault-The collar is too loose does not come close to the shirt collar.
Cause-The shoulder is too tight at the pitch.
How to alter-There are two ways to make this alteration.
If the looseness is slight, and the armscye a little close make the alteration as on Diagram U. Just raise or loosen the shoulder as from A to B, say $1 / 2$ inch. This will let the coat come down to its proper place and leave the collar closer. If the collar is loose and the armscye is easy and deep enough, make your alteration as on Diagram Ur. Straighten the shoulder as from D to C, say $1 / 2$ inch or as much as necessary.

Make the length from $G$ to $C$ the same as from $G$ to $D$.
From C to E is the same as from D to F .
Reshape as per broken line.


DIAGRAM U.


## DIAGRAM U.

Figure U does not alone show a looseness in the collar, but also a faHing away of the collar from the neck, which does not alone necessitate the straightening of the shoulder as on Diagram Ui, but also the crooking of the collar. See Diagram U.

From C to E should be the full width of collar stand, which is $11 / 4$ inches, and should be made as follows:

Draw a line from the lapel break $F$ through $E$ to $G$.
From $G$ to $K$ is $I / 4$ inches.
From $E$ to $G$ is the same as the top width of back; shape as per broken line.


FIGURE V.


DIAGRAM V.
FIGURE V
Fault-The vest is too tight across the front of breast. It may be large enough or even too large at the sides. A vest of this kind is also apt to be too loose or to stick away from the body at the bottom button.

How to alter-See Diagram V.
One alteration will remedy both defects:
Unbutton the vest all but the bottom button and see what the distance is between the Diupperl button and buttonhole. Say the distance is I inch, now crook the shoulder as from A to $\operatorname{INTERNB}$ half of that amount, i. e., $1 / 2$ inch, and reduce the backpart from $\mathrm{C} \mathrm{t}_{\text {to }} \mathrm{P}$ the same. $S S$


FIGURE W.


DIAGRAM W.

## FIGURE W

Fault-This vest flares at the opening and is too loose at the upper buttons.
Cause-The shoulder is too crooked.
How to alter-If the vest is without a collar the only thing to do is to stretch the armscye as from $E$ to $G$ and the shoulder from $F$ to $B$ forwards, and draw in the neck from $C$ to $D$. If there is a collar then proceed as follows: Advance the shoulder point from A to $\mathrm{B} 1 / 2$ or $3 / 4$ inch as may be necessary. Shorten the strap $1 / 4$ or $1 / 2$ inch, and reduce from J to H the same amount as you have advanced from $A$ to $B$.


FIGURE X.


DIAGRAM X.


Fault: Figure X shows a very common fault, i.e., the vest is too low at the back of the neck, and does not cover the collar button.

Cause: There are several causes for such a fault: (I) The scye depth may be too short. (2) The strap may be too long for the scye depth. (3) It also happens sometimes that while the vest is not high enough at the back of neck, there is a wrinkle across the back part 2 or 3 inches below the neck.

How to alter:
We will treat each cause separately.
If the first is the reason and the vest length is just right, make the alteration as follows: (See Diagram X.) Raise the backpart from A to B, and C to D I inch, add the same from C to 2 , and from $E$ to $F$. Measure the distance from $A$ to $C$ and from $B$ to $D$; the distance from $B$ to $D$ is now slightly increased, so reduce the increase from $H$ to $G$ on forepart.,

If the trouble arises from the second cause the same alteration will remedy the difficulty, excepting where the vest can stand being shortened, in which case leave the backpart as it is and shorten the strap. (See Diagram Xi.)

Should the third cause be responsible for the defect, and if the backpart has a wrinkle across somewhere between the neck and scye depth and still is too low in the neck, proceed as on Diagram X2. Advance the shoulder point from I to I $1 / 2$ or $3 / 4 \mathrm{inch}$. Reduce the same from K to L. as per broken line.


FIGURE Y.


DIAGRAM Y.
Fault-The vest back wrinkles below the neck.
Cause-The vest back is too long from the shoulder pitch up.
How to alter-(See Diagram Y).
Reduce the back from $A$ to $B$ and $C$ to $D$, say $1 / 2$ inch and re-shape as per broken line to $E$.
Measure the back shoulder from C to E and from D to E and whatever difference there is, reduce the same amount from $F$ to $G$ on forepart.


FIGURE $Z$.


DIAGRAM $Z$.

The fault of the trousers herein shown is one frequently seen,
When the man stands straight, the trousers hang well and fall straight with very little fulness at the crotch; but when the knee is bent as in walking or sitting down, the forepart catches at the knee, drawing wrinkles from the crotch downward, at the same time causing the forepart to be held tight in the front at the bend of the ankle and the backpart to stick away at the heel

The cause of this defect is:
The backpart is cut too straight. We know that it is every cutter's desire to cut trousers that will have little or no surplus length at the back crotch, but there is a limit to straight trousers, especially when the goods happens to be a hard worsted or any hard woven material, when such a defect is more apt to occur.

How to alter, see Diagram Z.
Reduce the backpart from C to O, say I inch, or as much as you think necessary to relieve the draw ; add from A to B the same.

Raise $1 / 2$ inch at $O$ and reshape as per broken line.


FIGURE AA.


## Fat Man's Trousers

## FIGURE AA

Fault-The trousers wrinkle and seem to draw at the fly below the stomach.
Cause-Too much waist and stomach.
How to alter-(See Diagram AA).
By too much waist we do not mean that the trousers are too large at the waist, but that in distributing the cloth the front has got too much of it. Therefore reduce the waist from C to $\mathrm{D} 1 / 2$ inch, reduce from E to F the same as C to D and re-shape. Add from B to A on backpart the same amount as the front is reduced from C to D .


FIGURE BB.

## FIGURE BB

Fault-The crease of the trousers turns to the inseam.
Cause-The cause may be in cutting or in the making.
If a fault of this kind happens often the cause is in the cutting, in which case reduce the backpart as from 9 to $10,1 / 2$ or $3 / 4$ inch and advance the same amount from 6 to $\mathbf{1 2}$.


## DIAGRAM BB.

But it happens once in a while that the fault is the tailor's. For instance:
If the forepart is stretched between 2 and io more thar the inseam between 3 and 8 , the crease will fall to the inseam. Sometimes the notches do not meet, in which case the alteration is simple, but no matter from what cause, if you drop the notch on the backpart as from 4 to 5 and make the forepart notch meet it, the crease will fall to the center.

In moving the notch down reduce the back part from 13 to 14 the same amount as the notch has been moved down and add the same from 12 to 7 .


FIGURES CC


Figures C C show the front and back of the same trousers. This fault can often be seen on what is called a back bow. The cause of this defect is the backparts are too long and the front parts too short. How to alter, see Diagram C C.

THE FOREPART.
Reduce and raise the forepart from D to C, say $1 / 2$ inch each way, and add the same amount from B to A. Re-shape as per broken line.

## THE BACKPART.

Reduce the side seam of the backpart from $N$ to $M$ about I inch, and leave out the outlet on the inseam from $L$ to $K$ the same amount. Leave out from I to J, say $1 / 2$ inch, and from $G$ to H the same. Reduce the same amount from E to F and re-shape as per broken line.


FIGURE DD.


DIAGRAM DD.

Fault-The trousers wrinkle in front of crotch.
Cause-This is sometimes caused by the forepart being stretched on the inseam.
Some trouser makers have a habit of stretching the inseam while shrinking the backpart, after the seams are sewed up, which is decidedly wrong, for while the inseam of the backpart must be stretched between the knee and the crotch, yet it must be done before the seams are sewed up, so that the inseam of the forepart will not stretch.

How to alter-To remedy this defect is easy, all that is necessary is to rip the inseam, press the forepart straight and sew it up again.

Sometimes, however, this defect is caused by the inseam being too long in which case see Diagram DD.

To avoid such a defect-In cutting the trousers advance the line from A to B $1 / 2$ or $3 / 4$ inch and reduce from C to D the same amount, cut the backpart accordingly, that shortens the inseam. If, however, the trousers are finished and from A to B cannot be advanced, there being no outlet on the forepart, make your alteration as follows:

Let out the outlet on the backpart from E to F, say I inch, and take in the same amount on the outside seam.

## Instructions for Tailoring Coats

In order to be a successful cutter, the first thing necessary is to work in harmony with your tailors. It is not essential to have the best tailors, for every tailoring house can't have the best trade, but, no matter how good a tailor a man may be he must look to his cutter for instructions. It is the cutter who is held responsible by the firm for the good or bad garment produced, and so it naturallyfollows that his instructions must be followed.

The indiscriminate stretching of shoulders or gorge by good coat makers has done more to produce bad garments than many cutters are aware of, and the drawing in and shrinking of armholes for chest effect where no provision for such work has been made has killed many a job. In the back shops, where many good coat makers come together and where work of a high-class is made, the best coat maker is looked up to for pointers as to how stylish garments ought to be made, and, as it is every coat maker's ambition to be considered as good or better than the best, he will not alone follow the good man, but go him one better. That is, if it is good to stretch the shoulder seam a little, it is better to stretch it much, at the same time forgetting the old story, "That what will cure an Irishman may kill a Dutchman."


The proper way to make a coat depends upon the way the coat is cut. We have now what is known among cutters as three kinds of shoulders, viz.; the straight, the crooked and the normal shoulder, each of which requires manipulation of its own to produce the proper effect. To make myself more clearly understood I must explain where the crooked shoulder begins and where the straight shoulder ends. To the average cutter's judgment a crooked shoulder is one where the distance from the line in front of the armscye to the shoulder point is less than $1 / 6$ of the breast measure, and a straight shoulder is one that measures more than $1 / 6$ of breast. $1 / 6$ of breast is therefore normal. That is true providing the breast and waist at the front edge are on a square with the breast line on the normal coat. (See Diagram AA.)

However, should the distance from the same line in front of the armscye to the shoulder point be $1 / 2$ inch less than $1 / 6$ of the breast measure, and the waist at the front edge extend $1 / 2$ inch in front of the breast line, (see Diagram BB) then the shoulder is not crooked but normal.

Diagram CC is a copy of Diagram BB with an imaginary breast line squared back by the front edge. (See broken line.) By squaring up from the present breast line in front of the armscye and measuring from that line to the shoulder point the distance will be $1 / 6$ of the breast measure and the shoulder is therefore not crooked.


The same is true the other way; on the normal figure, where the distance from the line in front of the armscye to the shoulder point is $1 / 6$ breast, plus I inch, and the waist point recedes $I$ inch from the line squared down from the breast, (see Diagram DD), the shoulder is not straight but normal. Now let us consider the shoulder from the present point of view.

I will now proceed to explain how coats ought to be made up. As the greater part of the making, up of coats are known to every tailor, I will explain only those points which deal with the vital fitting points and artistic lines, i. e., the shoulders, collars, sleeves. chest effect and the front edges.

## The Crooked Shoulder

The coat with the crooked shoulder must not have the chest worked in from the armscye; the chest must be worked in from the front edge. At the armscye the canvas must be cut and the armscye stretched. The overshoulder must have no extra additions except for the seams. The high shoulder is produced by the stretching of the armscye. The upper s?eeve may be cut $1 / 2$ inch larger than the armscye because the stretching of the armscye requires a larger upper sleeve. The collar may be put in easy at the hollow of the gorge, but not too long, and must be shrunk in at the crease. This kind of a coat used to be made by almost every tailor some years ago, and is still made by some tailors now.

The coat with a normal shoulder must be made up as follows: The chest is worked in slightly from the armscye and the rest from the front edge. The shoulder seam of the forepart must not be stretched unless extra height is given to the shoulder pitch, the collar is put in longer than in the coat with a crookedshoulder and is also slightly shrunk in at the crease. The armscye must not be stretched and the sleeve, which is cut to measure, is put in in the usual way.

## The Coat With The Straight Shoulder

The manipulations of this coat depends upon how straight the shoulder is cut. Let us assume that the shoulder point is $1 / 6$ of breastplus $1 / 2$ inch from in front of the armscye. The shoulder ought to be raised the same amount in height as the shoulder is straightened, in which case the manipulations are as follows: The front of the armscye should be drawn in and shrunk $1 / 2$ inch. The gorge may be slightly stretched, but if not stretched at all and the collar is put in full long it is just as good. The canvas must have a $3 / 4$ inch V cut out from in front of the armscye, and a $3 / 4$ inch short $V$ set in at the shoulder near the gorge. The upper sleeve may be slightly reduced in width, especially if the material is worsted, and may be raised $1 / 4$ to $1 / 2$ inch if the shoulder is narrow. The front edges must not be worked in much at the breast, and at the lowe1 part of the edge the stay tape must be put in short enough to prevent the edge from being stretched. The collar crease must not be shrunk in. Keep the crease straight.

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