

STONE'S  
NEW SUPERLATIVE  
TROUSER SYSTEM

CHAS. J. STONE

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*Yours Truly*  
*Chas. Stone*

\* STONE'S \*

NEW SUPERLATIVE

# TROUSER SYSTEM

BASED UPON A SCIENTIFIC,  
SURE AND SIMPLE METHOD

....BY....

CHAS. J. STONE

CHICAGO, ILL.

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## DEDICATION

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To all cutters who desire to tread the upward path in sartorial research and to acquire a wider and higher education in this Art, I dedicate this book; thanking the profession for their appreciation of my first edition on Trousers Cutting.

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## PREFACE.

Books rule the world to a very considerable extent, and with an advancing civilization there must be an increase of books and a broader sweep of power proceeding therefrom, for they exert a mighty influence in the way of educating the people. It is as an educator to the progressive cutter that I present this book on Trouser Cutting, on this the beginning of the Twentieth Century.

The basis upon which the entire foundation of this work is built is by proportions of the human form, and a careful, earnest, thorough study will reward you with results even beyond your most sanguine expectations.

Sir Francis Bacon said, "Reading maketh a full man, conference a ready man, and writing an exact man." Read this book from preface to the last page, not beginning in the middle, but read and digest the contents of each page in succession; then confer with successful cutters; after this reading and conference write on the tablets of your memory the information gained thereby.

I have laid down the fundamental principles, endeavoring to illustrate and explain the diagrams in the most accurate and lucid manner, and it now remains with the progressive cutter to utilize the instruction for his advancement.

THE AUTHOR.

## INTRODUCTORY.

There has perhaps not been as much progress made in trousers cutting as there has in coat and vest cutting, for the simple reason that cutters pay less attention to this most important problem. Every cutter has his specialty, but we find very few specialists on trouser cutting. Why is this? It is because cutters very seldom, if ever, study the shape of the lower half of their client, and whenever the cutter turns out a good fitting pair of trousers it is more by luck than by actual experience. In order to enable us to properly cut and make all kinds of garments for all shapes and forms it becomes necessary for us to study the form that we are called on to cut a covering for, and with this view in mind the author of this work on trouser cutting has started from the very beginning by taking the human form and dividing it into sections so as to give us some basis to work from. There must be and is a reason why for everything we do when we cut a pair of trousers, and a system which has not for its foundation the anatomical divisions of the human form certainly has not got any foundation to build on, and in order to become a successful cutter it becomes necessary to first study the proportions of the human form. Learn first how to cut a proportionate pattern for a proportionate form, then learn how to cut a disproportionate pattern for a disproportionate form. Always put in the foundation first before you begin to build. This work starts out with the foundation and proportions, followed

by all kinds of disproportions, and in order to be able to fully understand the working of the system the cutter must start at the very beginning, read and study carefully every diagram; take your time and study them carefully and you will be rewarded by being able to cut a good fitting and well balanced pair of trousers, providing you follow the instructions, and whenever you fail to do so, look for the reason why.

You may have been careless in taking the measures. You must be observing; note your customer's attitude; note his shape. If he has a normal, flat, or prominent seat, small or large thighs, large or small calves, straight or bowlegs, or perhaps knock-kneed: does he toe out or in? These are the peculiarities that must be observed and the trousers must be cut and made up accordingly, in order to produce satisfactory results. The cutter must be painstaking if he wants to produce satisfactory garments. A system of cutting is somewhat like a musical instrument, it requires a good operator in order to bring anything out of it; and it matters not how good the system is, if the cutter is not willing to educate himself how to use the system he will get but poor results, the same as a poor player will produce only poor music out of a good musical instrument. But with a good practical cutter in possession of a good fundamental system of cutting the very best of results may be obtained. Here I lay before you the fundamentals, study them well and you will be benefited.

### HOW TO TAKE THE MEASURES.

In measuring for trousers I first take the inseam, then the rise from the crotch up to the waist. This measure is best taken by placing an ordinary square between the legs, measure up to the waist and deduct the width of the short arm of square, which is usually  $1\frac{1}{4}$  inches. The outside length from the waist to the floor may be taken and used in drafting, and the rise will then be the difference between the outside and inside length.

The waist measure is taken medium, the hip measure is taken quite snug, as an allowance of  $1\frac{1}{2}$  inches is added to half of the seat measure in drafting, which will give one inch extra for ease, the thigh measure is taken medium close and should be taken

as high up as possible; the knee and bottom measures are, of course, as to prevailing style.

After the measures are taken, be sure to note the shape of the legs as well as of the seat and hips, and make a note of these peculiarities. If the client has bowlegs have him place his two feet close together so that the toes touch; in this position he can not, if he is bow-legged, close the legs at the knee; to measure for the bow, stick your one, two or three fingers between the knees and determine how much space there is between the knees and mark down the amount of the bow; be sure and note down all the irregularities in the shape, and it will greatly assist you in producing a pattern that will fit.

## EXPLANATION OF PLATE I.

### PROPORTIONS OF THE HUMAN FORM.

#### THE DIVISION OF HEIGHT

The theory advanced by our most noted sculptors, painters, artists and professors of anthropology regarding the height of the human body and its proper division, is that the entire height, from the crown of the head to the end of the big toe, contains eight faces or heads, and on this theory they divide the human form into eight faces or heads. The distance from the bottom of the heel to the end of the toe is estimated to be  $\frac{1}{2}$  of the entire height. They also claim that the proper way to measure for height is to have the subject in a lying-down position with feet stretched out, or if in a standing position it must be on tip toe. This theory is undoubtedly correct if we want to find the correct length of the face, but to tailors this is of less importance. What we want is the division of the parts of the body that we are required to cover, and it matters not if the face of our client is one-sixteenth of an inch longer or shorter, and while the distance from the crown of the head to bottom of heel does not contain eight times the length of the face, yet I find in my practice that this distance can be correctly divided into eight parts and each of these parts subdivided into eighths, giving us 64 parts or units for height, and on this theory the accompanying diagram of the human figure is divided:

From the crown of the head to the pelvis bone, line F V, where the legs join the trunk of the body, is half of the entire height.

From F to J is  $\frac{1}{2}$  the distance from F to M, or  $\frac{1}{4}$  of entire height, and V to X is  $\frac{1}{8}$  of entire height.

V to C is  $\frac{1}{4}$  of entire height. This distance will vary according to flesh development. In a lean man it will be a little less and in a fleshy man more. The inseam will therefore be for a lean man not quite  $\frac{1}{4}$  less than  $\frac{1}{2}$  of height, and for a fleshy man as much as  $\frac{1}{4}$  less than  $\frac{1}{2}$  of height. For a cutter to fully understand this variation, it is necessary for him to understand the laws of form growth.

The rise of the waist is  $\frac{1}{8}$  and  $\frac{1}{4}$  of height, and to this may be added  $\frac{1}{2}$  inch, or according to the fancy of the wearer.

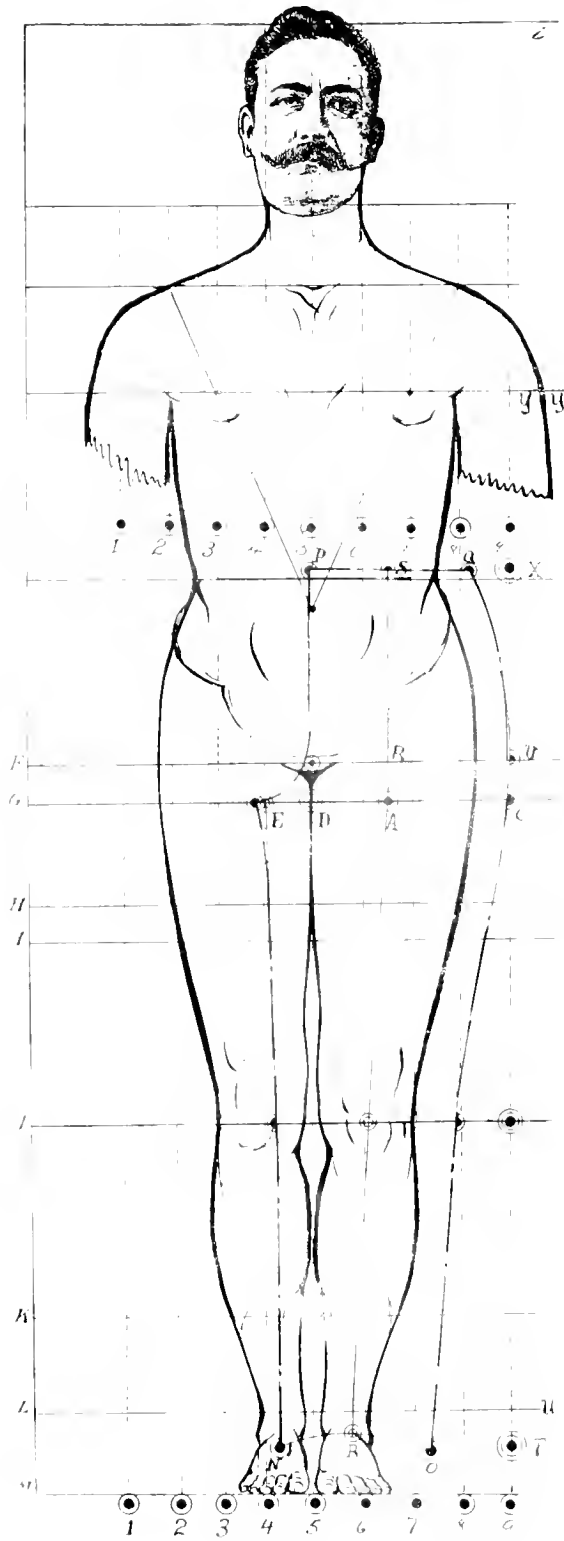
The breast circumference of the body I divide into 6 parts, six for the front, six for the back, and two for each side. This I fully explain in my Proportions on Coat Cutting.

C to D is  $\frac{1}{2}$  seat on division, and D to E is  $\frac{1}{8}$  seat.

A is halfway between C and E. This I square up to S, and this line is the center of the thigh.

Now, if we locate the center of the foot or ankle, it will be found that point A is not on a straight line with A S, therefore it is necessary to swing in the center line at the foot. The reader will ask how much? This depends on the size of the trouser legs. If they be small, the center must be swung in more, and if wide, less. For the present style of trousers, 18 $\frac{1}{2}$  to 19 knee and 16 $\frac{1}{2}$  to 17 bottom, I swing the center line in at bottom  $\frac{1}{8}$  of the seat measure, as will be more fully explained in the regular drafts.

PLATE I.



## EXPLANATION OF PLATE II.

### THE DIVISION OF WIDTH.

In drafting I use half of seat measure. This I divide into eighths.

From A to B is four-eighths, which equals  $\frac{1}{2}$ , and from B to C is one-eighth.

B to 7 is  $\frac{1}{8}$  seat, which locates the beginning of the rounding of the lower portion of the trunk of the body.

The center of the thigh D is halfway between A and C.

Square up from D to E.

The center line at F should be swung in  $\frac{1}{16}$  of seat, then divide the forepart equally on both sides of the center.

(In drafting, the forepart is reversed from what it appears in this diagram, which is left-handed, so as to show the shape of the stride and its divisions.)

The forepart is cut out and laid on backpart so that the center lines meet. 1 to 5 is four eighths, the same as the forepart. 5 to 6 is  $\frac{1}{8}$ , and 6 to C is  $\frac{1}{8}$ , making

the distance from B to 5,  $\frac{1}{4}$  and  $\frac{1}{8}$  seat, which equals  $\frac{1}{3}$  seat on division.

5 to Z is  $\frac{1}{8}$  seat on division.

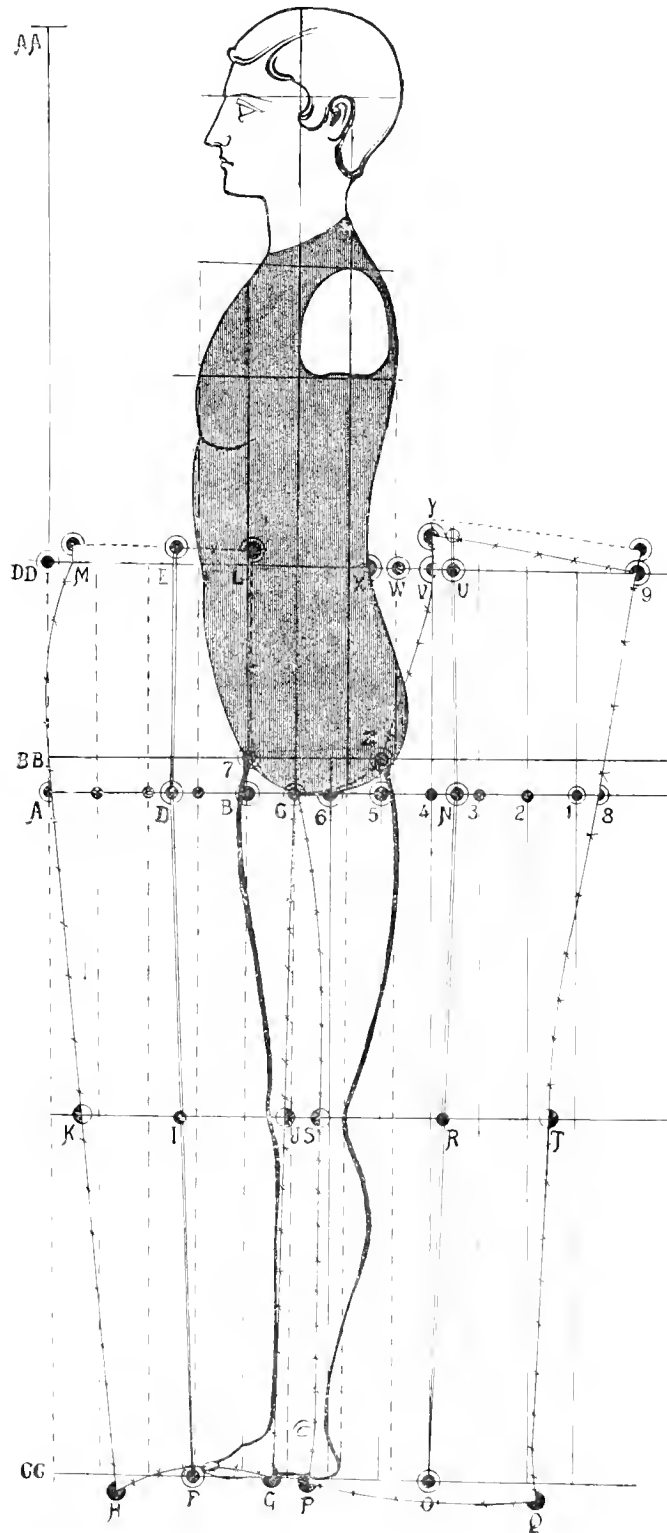
Perpendicular line W, it will be noted, is on a plumb line from the shoulder-blade. The seat will extend over this line, and the first impression that the reader will get by looking at the diagram undoubtedly will be that the seat line of the trousers should run with the shape of the body; but on second thought he undoubtedly will understand that when the backpart is turned around, it will come in a different position.

U to V is  $\frac{1}{16}$  waist and V to Y is  $\frac{1}{6}$  of the entire height (3 inches in all sizes may be used successfully). If the indentation could be successfully taken and applied, W to V should then be  $\frac{1}{2}$  inch more than W to X. 1 to 8 is  $1\frac{1}{4}$  inches for make-up and seams.

The width of the legs is equally divided on both sides of the center line. The seat should measure  $\frac{1}{2}$  seat and  $1\frac{1}{2}$  inches added for seams. The waist  $\frac{1}{2}$  of waist measure and 1 inch for seams, and if a V is taken out add  $1\frac{1}{2}$  inches for seams.



PLATE II.



## EXPLANATION OF PLATES III AND IV.

### THEORIZING.

If we want to study the practical as well as the systematical methods of cutting trousers, we must begin with the proportions of the human form; we must first take into consideration the shape and form of that part of the human body that we are about to cut a covering for, and to make this more plain I have drawn the accompanying diagrams which I now present to our readers. (See Plate III.) The two circles A E B, represent the legs set on to the body, and the circumference around these two circles is the size of the trunk of the body. A B is the two sides, D is the front and C the back. The buttocks will project out  $\frac{1}{2}$  of the seat, so the back fork must be that much more than the front fork; take the seat measure and divide it by four,  $\frac{1}{4}$  or as we use it in drafting,  $\frac{1}{2}$  seat, from B to D. Now if we swing in D it will strike as at L; we then will need a little less than  $\frac{1}{8}$  seat to bring the front fork to point E.

In practice I use for the forepart  $\frac{1}{2}$  and  $\frac{1}{8}$  seat. The extra amount gained as from K to L is needed for seams and ease. There is  $\frac{1}{4}$  of the seat measure from B to D, and  $\frac{3}{8}$  of thigh from B to K and K to E  $\frac{1}{8}$  thigh. One-half of the thigh will be a little less than  $\frac{3}{8}$  of the seat, but whatever extra size is gained in the stride by using the seat measure is needed for seams and ease. Five-eighths of half of the seat measure will reach from B around the back to P, and from P to E is  $\frac{1}{8}$  seat. This is the real foundation for our division in drafting.

The legs are like two cylinders laid alongside one

another and joined on to the body as at line A B. If the legs were two cylinders of equal size, top and bottom as indicated by the circles A E B and G V, we could then make the trouser legs the same size at top and bottom. A center line drawn from M through F J to G would then be the correct center and we would have no such thing as a long inseam, but as the size of the ankle is not more than one-third the size of the thigh, and it is customary to cut the trousers  $16\frac{1}{2}$  bottom to about 24 thigh, we find that the size of the lower end of the trouser leg is only about two-thirds of the size of the upper end, or if we take the diameter of both ends we find it to be a difference of  $2\frac{1}{2}$  inches. Now the question arises, where shall we reduce this extra size? Of course, if our client will keep his feet close together it is quite plain that the center line should be swung in from G to H, the  $2\frac{1}{2}$  inches difference between the two diameters, but if our subject stands apart 5 inches with his feet there is no need of swinging in the center line, and we can divide the forepart equally on both sides of the center line E on Plate IV, as per dotted lines, but if the man stands closer together with his feet it will be necessary to move or swing in the center line as from E to G on the average of  $\frac{1}{8}$  seat for a normal figure.

If we square down from D to E and I to S we have the two centers of the legs, but in an open position, so if the trousers are cut using this line for center of the legs, the inseams will be too long, as the legs are cut too open. Therefore I swing in the center line  $\frac{1}{8}$  of the seat as from line E to G, and use lines D, G and I, T for center of legs.

PLATE III.

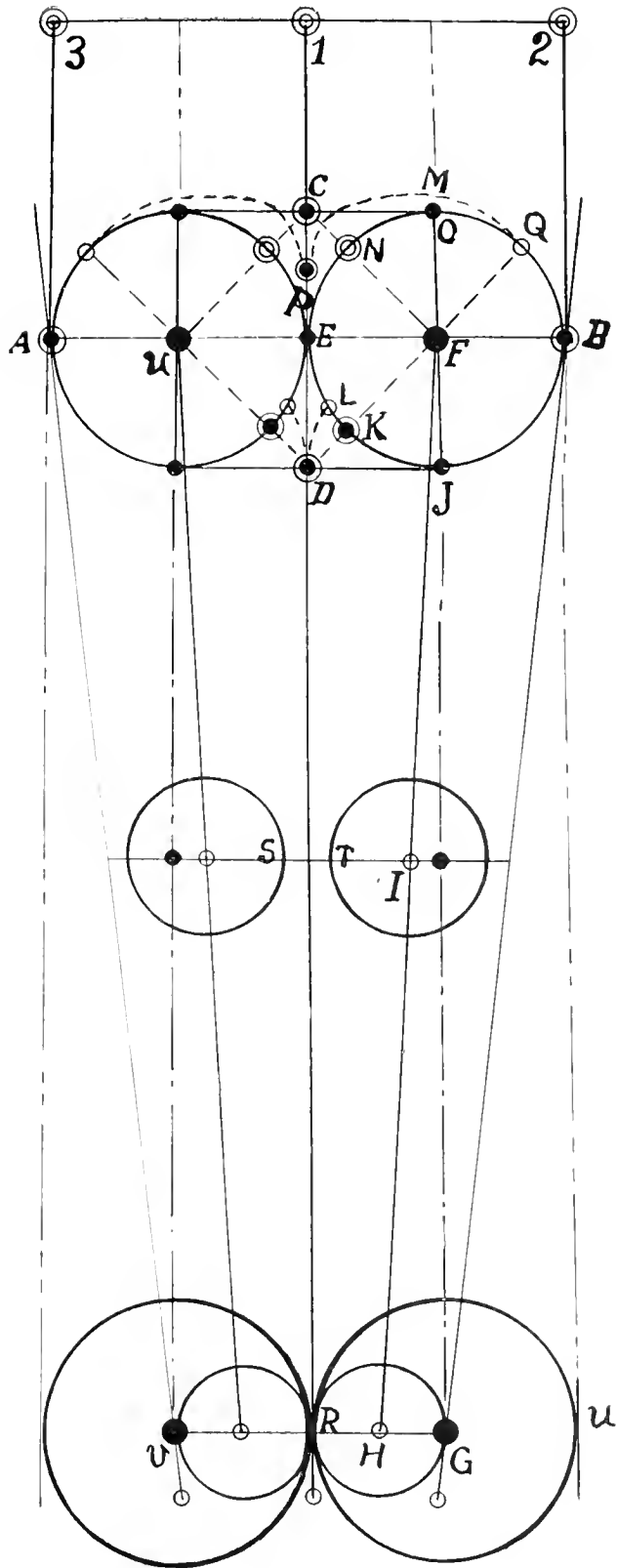
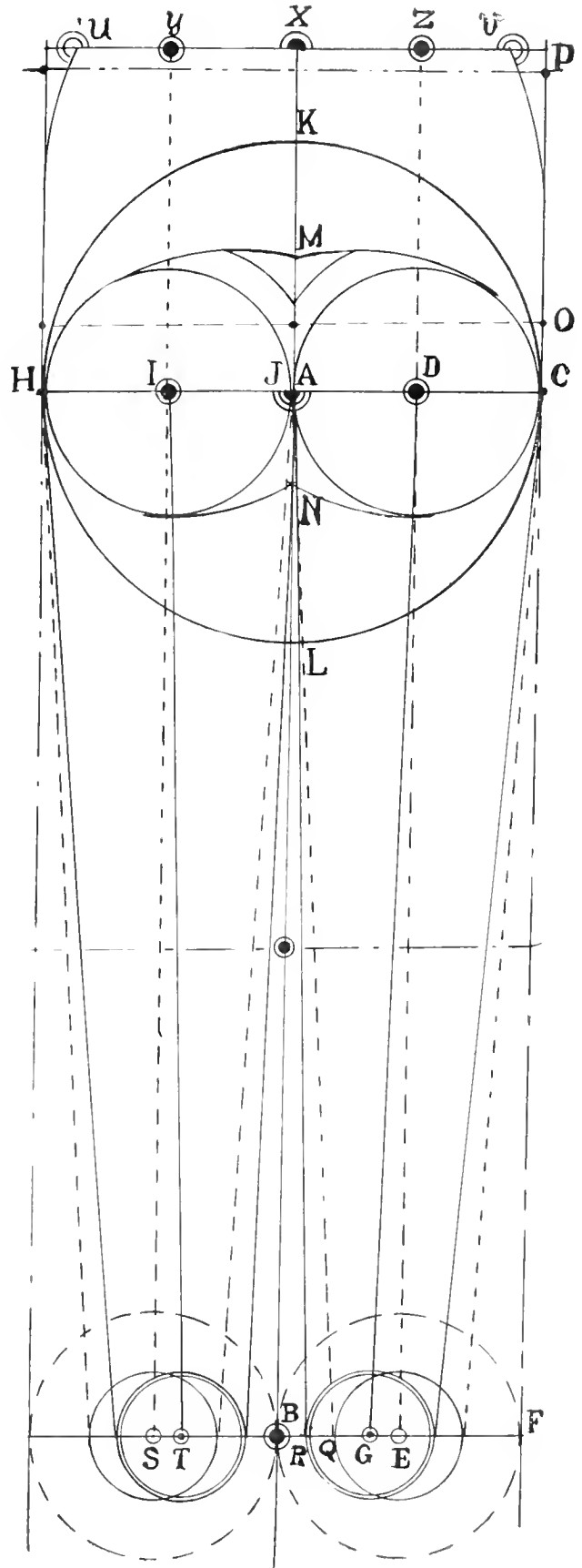


PLATE IV.



## THEORIZING.

### DIAGRAM A.

Diagram A represents the two legs laid close together at the thighs, point A. If we take the whole circumference measure of the seat it will, of course, take in the two thighs, and if the two legs are set close together onto the trunk of the body the seat measure will give the proper size for the thighs. If we take one-fourth of the seat measure (half on division) it will reach as from C through B to H. If we sweep down from C to L we have the width of the forepart as from L to H. If we sweep from H to G the measure B to H will reach to G, and it will require another  $\frac{1}{3}$  seat from G to A.

The circumference around these two legs simply illustrates the two thighs. If these two thighs are set onto the body, as per illustration in Diagram B, it would seem at first glance that the application of the seat measure would be too large for the thighs, but such is not the case, for although the seat measure is used to get the size of the legs, yet it requires  $\frac{1}{3}$  of seat extra in the back stride, as from K to A, in order to give the proper amount of goods around the thighs. One-half of seat measure, 18 inches, and  $\frac{1}{3}$  of 18, which is 6 inches, added to half of seat measure, 18, makes the thigh 24 inches; this includes allowance for seams and ease. The actual size of the thigh in a normal figure is  $\frac{1}{3}$  of the seat measure, which, for a 36 seat, will be 22  $\frac{1}{2}$  inches; for a 40 seat, 25 inches, and a 46 seat, 28  $\frac{1}{4}$  inches. These proportions hold good only in young men and athletes. The middle aged as well as old men who do not get any exercise to strengthen the muscular development of the thighs, fall below this standard, and it is here where the cutter will have to use an extra thigh measure, and in drafting compromise and use the difference of the actual and the proportionate thigh. The small thigh and flat seated figure perhaps is the hardest of all forms to cut trousers for. Diagram C illustrates this form where the two legs are set apart onto the body, leaving a space of from one to two inches between the two legs, as from 1 to 2. In this form the thighs must be reduced on the inside so as to give a curve on both the front and backpart, as from T to

S and V to S; be sure to reduce the thigh on the inside with a short, sharp curve, if you want the inseam

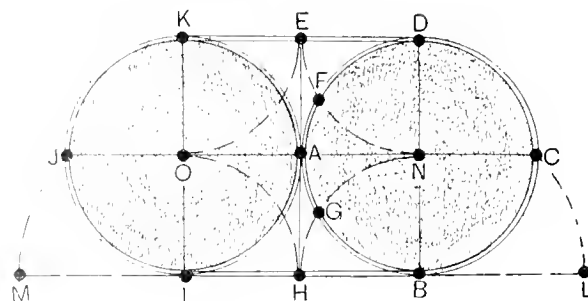


DIAGRAM A.

to hang straight. Some cutters imagine that by cutting a straight inseam for all shapes the trouser leg will hang

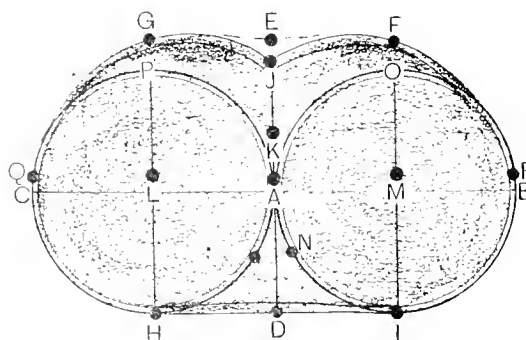


DIAGRAM B.

straight, but this is an illusion, and sooner or later the cutter will discover that in this particular case the

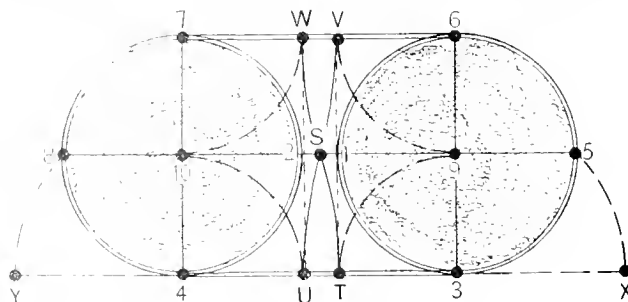


DIAGRAM C.

inseam must have a short curve just below the crotch in order to get the trouser up and set smoothly in the fork and hang straight in the legs.

PLATE VI.

TO DRAFT THE FOREPART FROM PROPORTIONS.

These are the fundamental principles on which this system is based, "the proportions of the human form," and by first studying the anatomical divisions of the form that we have to cut a covering for, we will have a better knowledge of the system employed in drafting. The cutter will know the whys and wherefores of all the different divisions used in drafting. We must first know the proportions before we can find what the disproportions are. First lay the foundation, then build on it.

Height, 5 feet 8 inches (68 inches).

Seat, 36 | Waist, 31.

A to G is  $\frac{1}{8}$  of height and G to C is  $\frac{1}{2}$  of height plus  $\frac{1}{4}$  of height.

M is halfway between G and C.

G to 1 is  $\frac{1}{8}$  of seat and 1 to I is  $\frac{3}{8}$  of seat, making the distance from G to I  $\frac{1}{4}$  or  $\frac{1}{2}$  seat on division.

W to J is  $\frac{1}{8}$  seat on division.

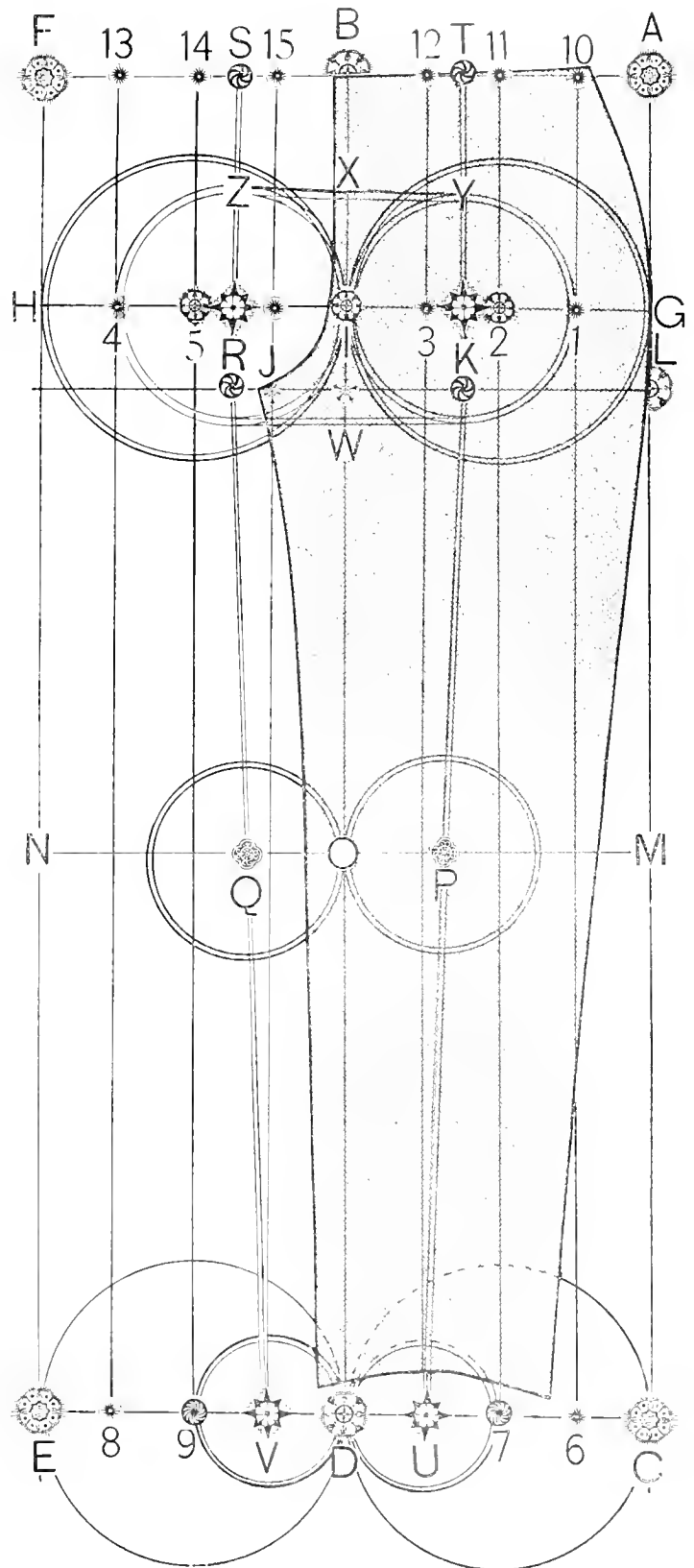
Square up and down lines 1, 2, 3 and I.

L to J is  $\frac{5}{8}$  of seat and K is halfway between L and J. Square up from K through Y and T.

As center line K is halfway between 2 and 3, it is  $\frac{1}{8}$  seat from K to 3, so by swinging in center line  $\frac{1}{8}$  at bottom it will strike on line U 3.

Apply knee measure one-half of knee each way from P, and bottom measure  $\frac{1}{4}$  inch less than one-half of bottom measure each way from U.

Now, if one-half of the seat measure will cover  $\frac{3}{4}$  of the thigh, one-third of this amount will be the correct quantity to cover the remaining  $\frac{1}{4}$  of thigh. So if in a 36 seat measure 18 inches will cover the three sides of thigh,  $\frac{1}{3}$  of 18, or 6 inches, is the correct amount for the front and back stride. Now, then if we use  $\frac{1}{8}$  seat, which is  $2\frac{1}{4}$  inches, for the front fork, we must add the remainder for the back fork, as follows,  $\frac{3}{8}$  and  $\frac{1}{8}$  seat, making the stride  $\frac{1}{4}$  and  $\frac{1}{2}$  seat, which is equal to  $\frac{1}{3}$  seat on division.



## EXPLANATION OF PLATE VII.

## THEORY IN PRACTICE.

The accompanying draft is for a normal figure. The draft is made from the following measurements:

Outside seam,	$42\frac{1}{2}$	Seat,	40
Inseam,	32	Knee,	20
Waist,	36	Bottom,	17

## TO DRAFT.

Square out and down from A.

A to B is outside length.

B to C is inside length.

D is 2 inches above half the distance from B to C.

C to E is  $\frac{1}{2}$  seat; square lines, E, C, D and B.

C to F is  $\frac{1}{2}$  seat and E to F is  $\frac{1}{4}$  seat.

G is halfway between C and F.

C to 15, 15 to 16, and 16 to 17, is  $\frac{1}{8}$  seat, thus dividing the forepart into eighths of the seat measure.

The center line G being in the center of points 16 and 17, the distance from G to 17 is  $\frac{1}{16}$  seat, therefore the center line should be moved in  $\frac{1}{16}$  seat at bottom, as from 40 to point M.

Point 40 is opposite point G.

E to F is  $\frac{1}{2}$  inch for dress, and F to T and F to U is  $\frac{1}{2}$  inch for dress.

N to O and N to P is  $\frac{1}{4}$  knee measure.

M to Q and M to R is  $\frac{1}{4}$  inch less than  $\frac{1}{4}$  of the width of bottom.

J to K is  $\frac{1}{2}$  waist (18 on halves).

C to 1 is 38 inch; lengthen outside at Q one-fourth the amount that forepart has been swung in from 40 to M, and shape forepart as represented.

## THE BACKPART.

Extend lines from H to X and V to W.

H to X is 3 inches or  $\frac{2}{3}$  of entire height of the client.

Point S is halfway between lines E and I.

Draw seat line from S through V.

F is halfway between X and W.

Apply waist measure from J to K; place this at 7 and measure back to 10, half of waist and  $2\frac{1}{4}$  inches for seams and  $\frac{3}{4}$  inch V taken out, as from 8 to 9.

Apply seat measure from S, line E to L, place this on seat line 31, which point is  $\frac{1}{8}$  seat up from S, and measure out to Y, half of seat measure and  $1\frac{1}{2}$  inches for seams and ease.

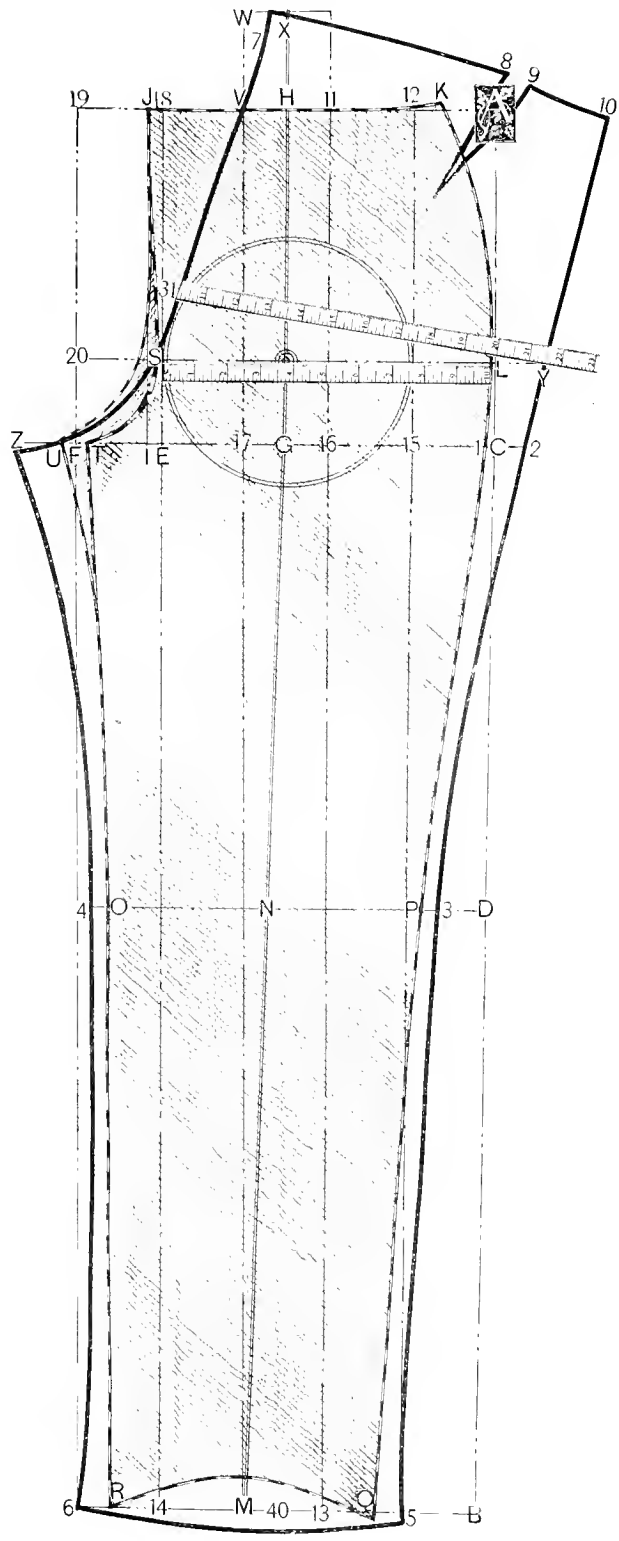
1 to 2 is  $\frac{1}{8}$  seat.

F to Z is  $\frac{1}{2}$  seat

P to 3 and O to 4 is  $\frac{1}{2}$  inch.

Q to 5 and R to 6 is  $\frac{3}{4}$  inch.

PLATE VII.



## EXPLANATION OF PLATE VIII.

## PROPORTIONATE TROUSERS.

The draft is produced from the following measurements:

Outside length,	43	Seat,	-	39
Inside length,	$32\frac{1}{2}$	Knee,	-	19
Waist,	35	Bottom,	-	17

## TO DRAFT.

Square out and down from A.  
 A to B is outside length and B to C is inside length.  
 D is 2 inches above one-half distance from B to C.  
 C to S is  $\frac{1}{2}$  seat.  
 Square lines S, C, B and D.  
 C to E is  $\frac{1}{2}$  and E to F is  $\frac{1}{2}$  seat.  
 G is halfway between C and F.  
 B to L is the same as from C to G.  
 L to M is  $\frac{1}{6}$  seat.  
 Draw center line from M to G.  
 Square up from G through H.  
 E to K is  $\frac{1}{2}$  inch.  
 F to I and I to J is  $\frac{1}{4}$  inch.

Square up lines K and E

T to U is  $\frac{1}{2}$  waist.

N to O and N to P is  $\frac{1}{4}$  of knee measure.

M to Q and M to R is  $\frac{1}{4}$  inch less than  $\frac{1}{4}$  of bottom measure.

Shape forepart as represented by shaded portions.

## THE BACKPART.

H to Y is 2 inches.

Y to C is  $\frac{1}{6}$  waist.

Apply waist measure from T to U, place this at Z and measure back to 10 one-half of waist and  $2\frac{1}{4}$  inches and take out  $\frac{3}{4}$  inch V in the backpart as from 8 to 9.

Z to 7 is 1 inch.

S to X is  $1\frac{1}{2}$  inches.

Draw a line from Z to point V.

F to 6 is  $\frac{1}{2}$  seat.

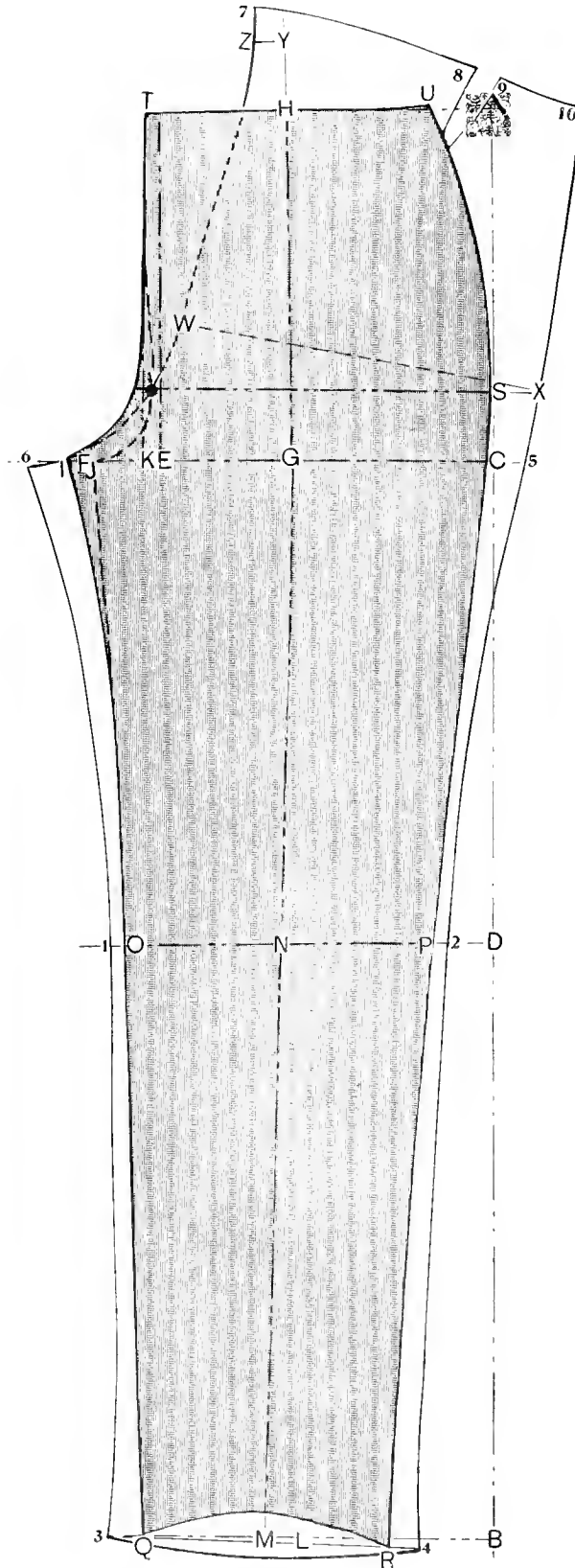
O to 1 and P to Q is  $\frac{1}{2}$  inch.

Q to 3 and R to 4 is  $\frac{3}{4}$  inch.

Shape as represented.



PLATE VIII.



## EXPLANATION OF PLATE IX.

### PROPORTIONATE TROUSERS.

The accompanying diagram is produced from the following measurements:

Outside,	42		Waist,	31		Knee,	18
Inside,	32		Seat,	36		Bottom,	16

To draft the forepart, commence by squaring lines A, B, C and A Q.

A to C is outside length.

C to B is inside length.

D is 2 inches above half the distance from B to C.

B to N is  $\frac{1}{8}$  seat.

Square lines N, B, C and D.

B to E is one-half seat on division and E to F is  $\frac{1}{8}$  seat.

G is halfway between B and F. Square up from G to K.

C to H is the same as B to G.

H to I is  $\frac{1}{8}$  of seat. Draw center line from G to I.

J to S and J to T is  $\frac{1}{4}$  knee measure.

I to U and I to V is  $\frac{1}{4}$  inch less than  $\frac{1}{4}$  bottom measure.  
E to L is  $\frac{1}{2}$  inch. Square up to Q. M is  $\frac{1}{8}$  seat up from L.

K to Q and K to R is  $\frac{1}{4}$  waist on division.

F to P and F to O is  $\frac{3}{8}$  inch.

#### THE BACKPART.

Place forepart on paper and square across at knee, seat and bottom.

T to 7 and S to 6 is  $\frac{1}{2}$  inch.

V to 9 and U to 8 is  $\frac{3}{4}$  inch.

N to 3 is  $1\frac{1}{2}$  inches and 4 to 5 is  $1\frac{1}{4}$  inches.

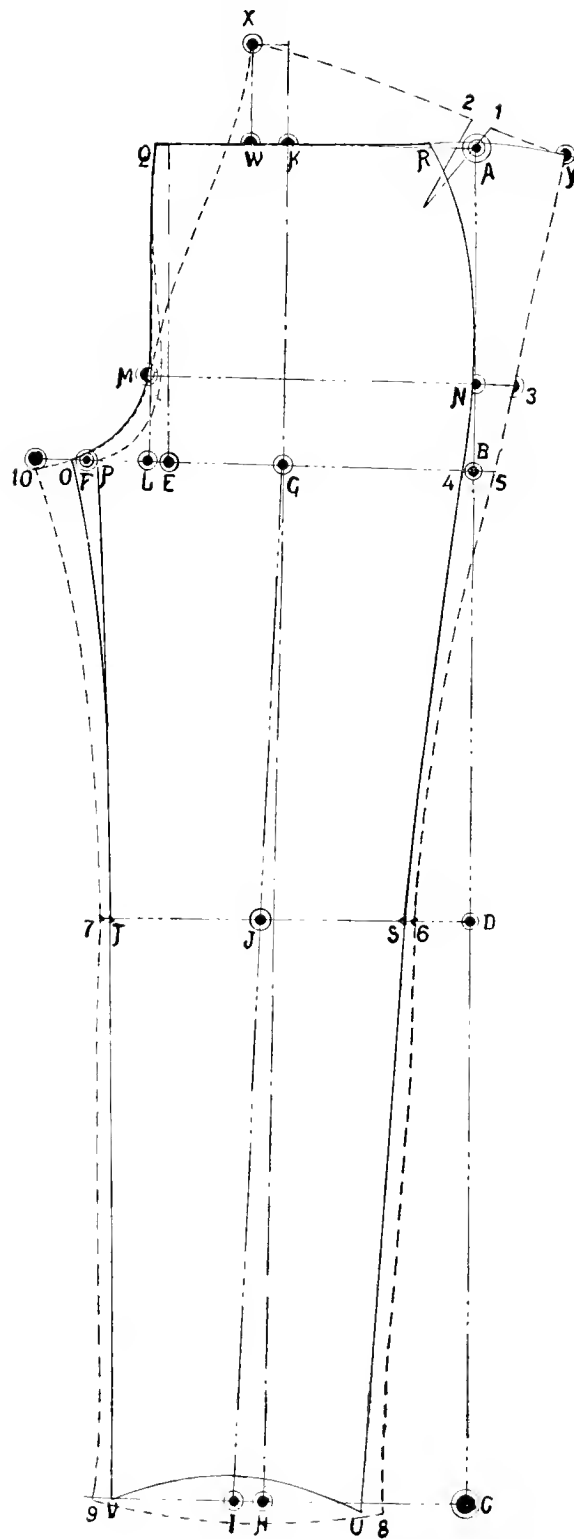
F to 10 is  $\frac{1}{2}$  seat. K to W is  $\frac{1}{8}$  of waist.

Square up from W to X,  $3\frac{1}{4}$  inches or 3 units of height.

Apply waist measure from Q to R. Place this amount at X and measure back to Y, one-half of waist measure, add 2 inches and take out a  $\frac{1}{2}$  inch V as from 1 to 2.

Shape as represented.

PLATE IX.



## EXPLANATION OF PLATE X.

## FULL DRESS TROUSERS.

The accompanying diagram is drafted from the following measures:

Outside,	-	42	Thigh,	21
Inside,	-	32	Knee,	18
Waist,	-	31	Bottom,	16
Seat,		36		

10 DRAFT.

Square out and down from A.  
 A to B is outside length.  
 B to C is inside length.  
 D is 2 inches above one half the distance from B to C.  
 C to T is  $\frac{1}{2}$  seat.  
 Square lines T, C, D and B.  
 C to E is  $\frac{1}{2}$  and E to F is  $\frac{1}{8}$  seat.  
 G is halfway between C and E.  
 Square up from G through H to Y.  
 B to K is the same as C to G.  
 K to L is  $\frac{1}{6}$  seat.  
 Draw center line from L to G.

E to 15 is  $\frac{1}{2}$  inch.

F to I and F to J is  $\frac{1}{8}$  inch.

Draw a line from U to F.

H to R and H to S is  $\frac{1}{4}$  waist.

R to 12 and S to 11 is  $1\frac{1}{4}$  inches.

M to N and M to O is  $\frac{1}{4}$  knee measure.

L to P and L to Q is  $\frac{1}{4}$  inch less than  $\frac{1}{4}$  of bottom.

T to V is  $\frac{1}{2}$  inch.

Shape forepart as represented by shaded portions.

The backpart is drafted by extending line from forepart.

H to Y is  $2\frac{1}{2}$  inches.

Y to Z is  $\frac{1}{8}$  waist.

Apply waist measure from R to S, place this at Z and

measure back to 10, one-half waist measure and 2

inches for seams. One-half inch V to be taken out

in the backpart as from 8 to 9.

Z to 13 is 1 inch and 16 to 14 is  $1\frac{1}{4}$  inches.

F to X is 2 inches.

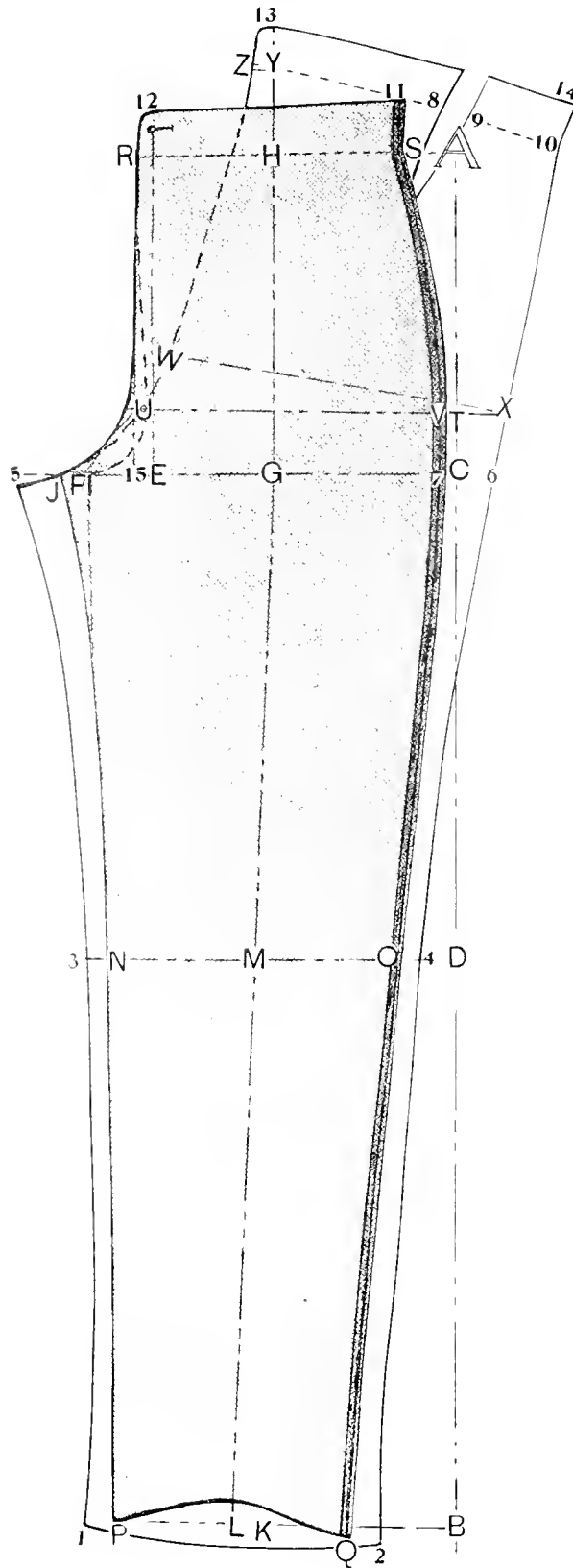
F to 5 is  $\frac{1}{2}$  seat.

N to 3 and O to 4 is  $\frac{1}{2}$  inch.

P to 1 and Q to 2 is  $\frac{3}{4}$  inch.

Shape as represented.

PLATE X.



## EXPLANATION OF PLATE XI.

## PEG-TOP TROUSERS.

FOR A PROPORTIONAL FIGURE.

The accompanying diagram is that of a regular peg-top, produced from the following measurements:

Outside,	-	43	Thigh,	-	24
Inside,	-	32	Knee,	-	21 $\frac{1}{2}$
Waist,	-	36	Bottom,	-	16 $\frac{1}{2}$
Seat,	-	40			

TO DRAFT.

Square out and down from A.

A to B is outside length.

B to C is inside length.

D is 2 inches above one-half the distance from B to C.

C to N is  $\frac{1}{2}$  of seat.

Square lines N, C, D and B.

C to E is  $\frac{1}{2}$  and E to F is  $\frac{1}{2}$  seat.

F to 3 and D to 4 is  $\frac{1}{4}$  inch.

G is half way between C and E.

B to H is the same as C to G.

Draw a line from H through C to L.

H to I is  $\frac{3}{8}$  seat.

F to V is  $\frac{1}{2}$  inch.

Square up lines L and V.

It is not necessary to square down from E to U, as this only illustrates a section line.

P to Q is  $\frac{1}{4}$  waist.

J to Q is  $\frac{1}{4}$  knee (2 $\frac{1}{2}$  on fourths).

I to S and I to T is 15 $\frac{1}{2}$  on fourths, being  $\frac{1}{2}$  inch less than one-half of actual size of bottom.

N to 1 and C to 2 is  $\frac{1}{4}$  inch.

Shape forepart as represented.

BACKPART.

S to 6 and T to 8 is  $\frac{1}{2}$  inch.

R to 7 and Q to 6 is  $\frac{1}{2}$  inch each.

F to 5 is  $\frac{1}{2}$  seat.

Point K is halfway between lines E and V and  $\frac{1}{4}$  of seat up from E.

M to X is 1 $\frac{1}{2}$  inches.

L to M is 3 inches always.

M to Y is  $\frac{1}{16}$  waist.

Draw a line from Y to K, and hollow backpart  $\frac{1}{4}$  inch as at 11.

Sweep from O to Z by Q.

Apply waist measure from P to O.

Place this at 11 and measure out to Z.

One-half of waist measure and 2 inches for seams and  $\frac{1}{2}$  inch V to be taken out between 12 and 13.

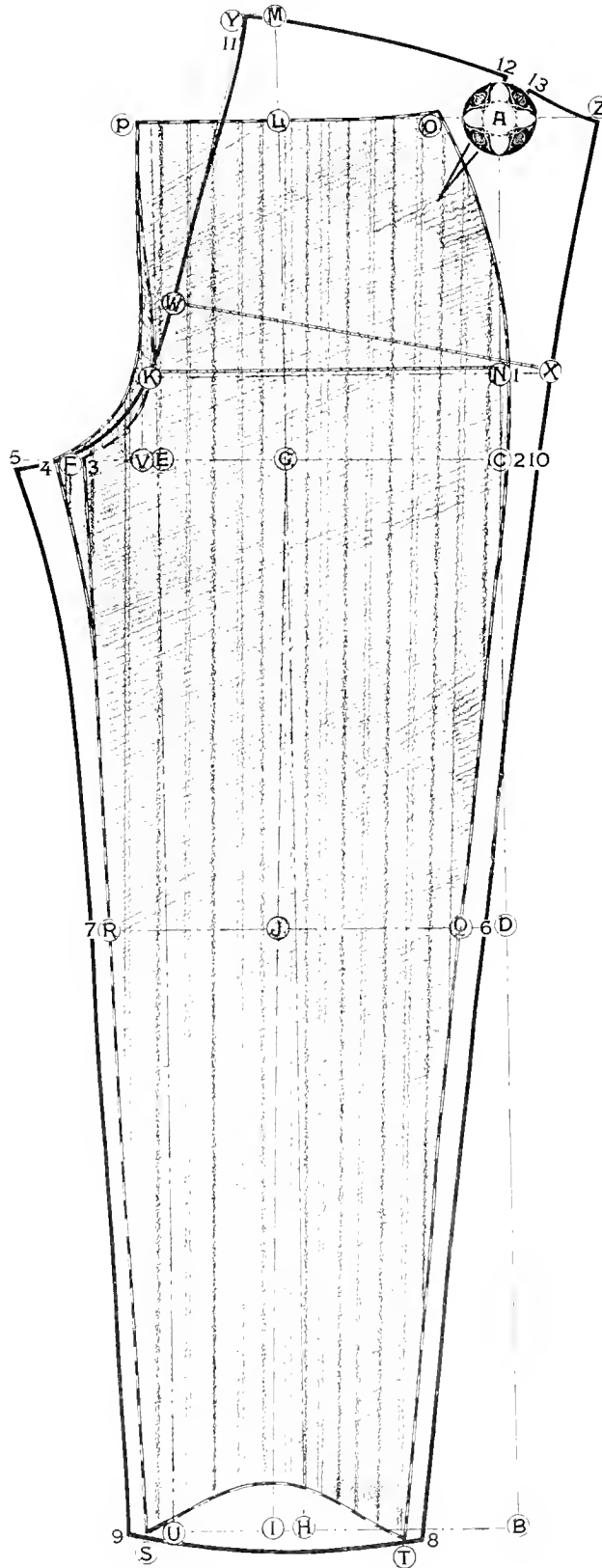
NOTE.—The outside of the trousers must be lengthened at bottom as at point T,  $\frac{1}{2}$  of the amount that they have been swung in, as from H to I.

It will be noted that there is only  $\frac{1}{2}$  inch added at the bottom for seams, but by measuring alongside the hollow edge of forepart of bottom we have gained the extra  $\frac{1}{2}$  inch needed.

K to W is  $\frac{1}{4}$  seat.

Apply seat measure from K to N, place this amount at W and measure out to X one-half of seat plus 1 $\frac{1}{2}$  inches for seams and ease, to this may be added any amount desired for extra fullness over the hip.

PLATE XI.



## EXPLANATION OF PLATE XII.

## SPRING BOTTOM PANTS.

The accompanying diagram is that of a regular old-fashioned spring bottom pants.

The draft is made from the following measurements:

Outside,	-	43	Knee,	-	16 $\frac{1}{2}$
Inside,	-	33	Calf,	-	17
Waist,	-	34	Ankle,	-	15 $\frac{1}{2}$
Seat,	-	39	Bottom,	-	22
Thigh,	-	22			

## TO DRAFT.

Square out and down from A.

A to B is outside, and B to C is inside length.

D is 2 inches above one-half the distance from B to C.

C to T is  $\frac{1}{8}$  seat.

Square lines T, C, D and B.

C to E is  $\frac{1}{2}$  and E to F is  $\frac{1}{8}$  seat

F to I and F to J is  $3\frac{3}{8}$  inch.

E to P is  $\frac{1}{2}$  inch.

G is  $\frac{1}{2}$  waist between C and F.

B to K is  $\frac{1}{8}$  seat.

Square from G through H to X and draw a line from G to L.

L to O is 4 inches and M to N is  $4\frac{1}{2}$  inches.

Square across from O to N.

Lengthen outside of forepart from 4 to 9,  $\frac{1}{4}$  distance from K to L.

M to 1 and M to 2 is  $\frac{1}{4}$  knee ( $16\frac{1}{2}$  on fourths).

On spring bottom pants I always make the widths on the forepart at the bottom one inch less than at the knee.

In this case L to 3 and L to 4 is  $14\frac{1}{2}$  inches on fourths.

Shape forepart as represented by broken lines.

The easiest way to obtain the correct width of trousers at knee and bottom is to add the amount desired for seams (in this case 1 inch) to the actual measure and apply it in the following manner:

Then place bottom of square at 1 and measure out to 18 ( $17\frac{1}{2}$  inches on halves).

Place end of square at point 2 and measure out to 19 ( $17\frac{1}{2}$  on halves).

Then place bottom of square at 3 and measure out to 11 (23 on halves).

Then from 4 to 10 (23 on halves), 5 to 14 and 6 to 15 is  $16\frac{1}{2}$  on halves.

7 to 17 and 8 to 16 is 18 on halves.

Owing to the extra length gained by the spring at the bottom, the backpart is to be straightened  $5\frac{3}{8}$  inch as from 10 to 13 and 11 to 12.

F to U is  $\frac{1}{2}$  seat, T to W is  $1\frac{3}{4}$  inches.

E to S is  $\frac{1}{8}$  seat and point S is halfway between lines U and P.

19 to 29 is  $\frac{1}{4}$  inch less than 1 to J.

H to X is 3 inches.

X to Y is  $\frac{1}{8}$  waist.

Hollow packpart  $\frac{1}{4}$  inch as at 27.

18 to Z is  $\frac{1}{4}$  inch less than 2 to R.

Apply waist measure from Q to R.

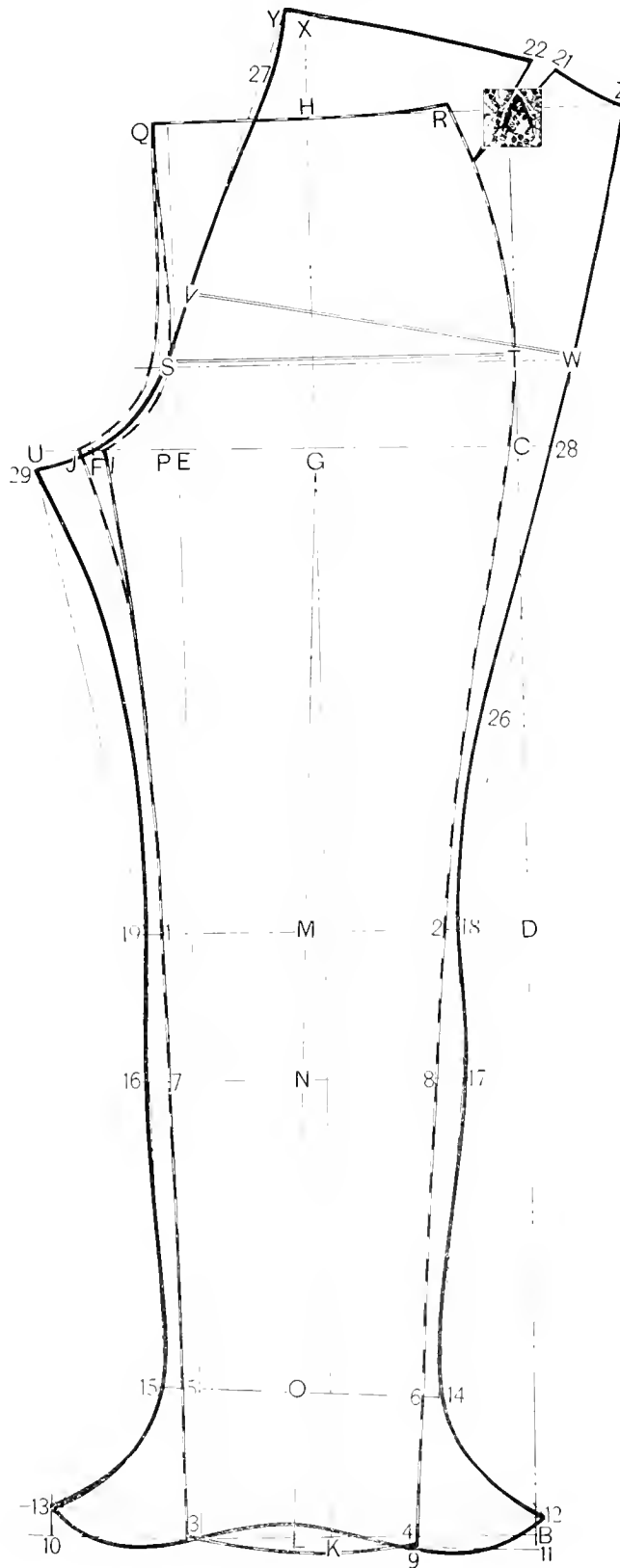
Place this at 27 and measure out to Z. One-half waist and  $2\frac{1}{4}$  inches for seams and  $3\frac{1}{4}$  inch V taken out between 21 and 22.

S to V is  $\frac{1}{8}$  seat.

Apply seat measure from S to T, place this amount at V and measure out to W, one-half of the seat and  $1\frac{1}{2}$  inches added for seams and ease.



PLATE XII.



## EXPLANATION OF PLATE XIII.

### TROUSERS FOR THE CORPULENT.

The accompanying draft is for a corpulent figure who stands apart with his feet.

The following measures are used in drafting:

Outside,	44	Waist,	46	Knee,	21
Inside,	3*	Belly,	47	Bottom,	18
		Seat,	45		

#### HOW TO DRAFT THE FOREPART.

Square line A, D and A, 6.  
 A to D is outside length.  
 D to B is inside length.  
 C is 2 inches less than halfway from B to D.  
 Square out B, C and D.  
 B to 1 is  $\frac{1}{2}$  of seat (on division) or  $\frac{1}{4}$  of entire seat measure.  
 1 to 5 is  $\frac{7}{8}$  of seat.  
 1 to 2 is  $\frac{1}{2}$  inch.  
 Square up lines 1 and 2.  
 From 2 up to star at 8 is  $\frac{7}{8}$  of seat.  
 E center line is halfway between B and 5.  
 D to F at bottom is the same as B to E.  
 Draw center line from F through E and up to G.  
 Get width at knee and bottom going out half each way from center line, making leg at bottom from 8 $\frac{1}{2}$  to 9 inches wide.  
 Apply waist measure by placing square on center line at G, going forward to 6 and back to 7, one fourth of waist measure, using divisions on the square; thus making the forepart measure from 6 to 7 one-fourth of entire waist measure.  
 10 is one-third the distance from 6 to 2.  
 Square down by G and 6 to 10.  
 Draw line from 10 to 2.  
 Add to fork from 5 to 3 same amount that there is between line 2 at 8 to dotted line at 9.

From 3 to 4 is  $\frac{3}{8}$  inch.

Draw a line from 9 to 3.

Raise forepart from 6 to 11 half the distance that there is from 26 to 11.

Reduce forepart at 12 whatever it has gained at 8.

Shape as shown in diagram.

#### BACKPART.

Place forepart on paper or cloth.

Extend lines at knee from 19 to 20.

Extend lines at bottom from 17 to 18.

Extend seat line at B and 21.

Draw up center line from G to 22.

G to 22 is one sixth of seat measure.

From 22 to 23 is the same distance as from 26 to 11 on forepart, on diagram A.

Draw line from halfway between 22 and 23 to star on forepart.

The star always remaining halfway between lines 1 and 2, and one-eighth of seat up from 2.

From 4 to 21 is one twelfth of seat.

From 12 to 25 is 13 $\frac{1}{4}$  inches and add extra the amount the forepart has been reduced at 12.

Sweep from 7 to 24, by knee 13.

Apply waist measure from 11 to 7, and 23 to 24, allowing one inch extra for seams, apply the measure over abdomen at 10, half of measure and one inch for seams.

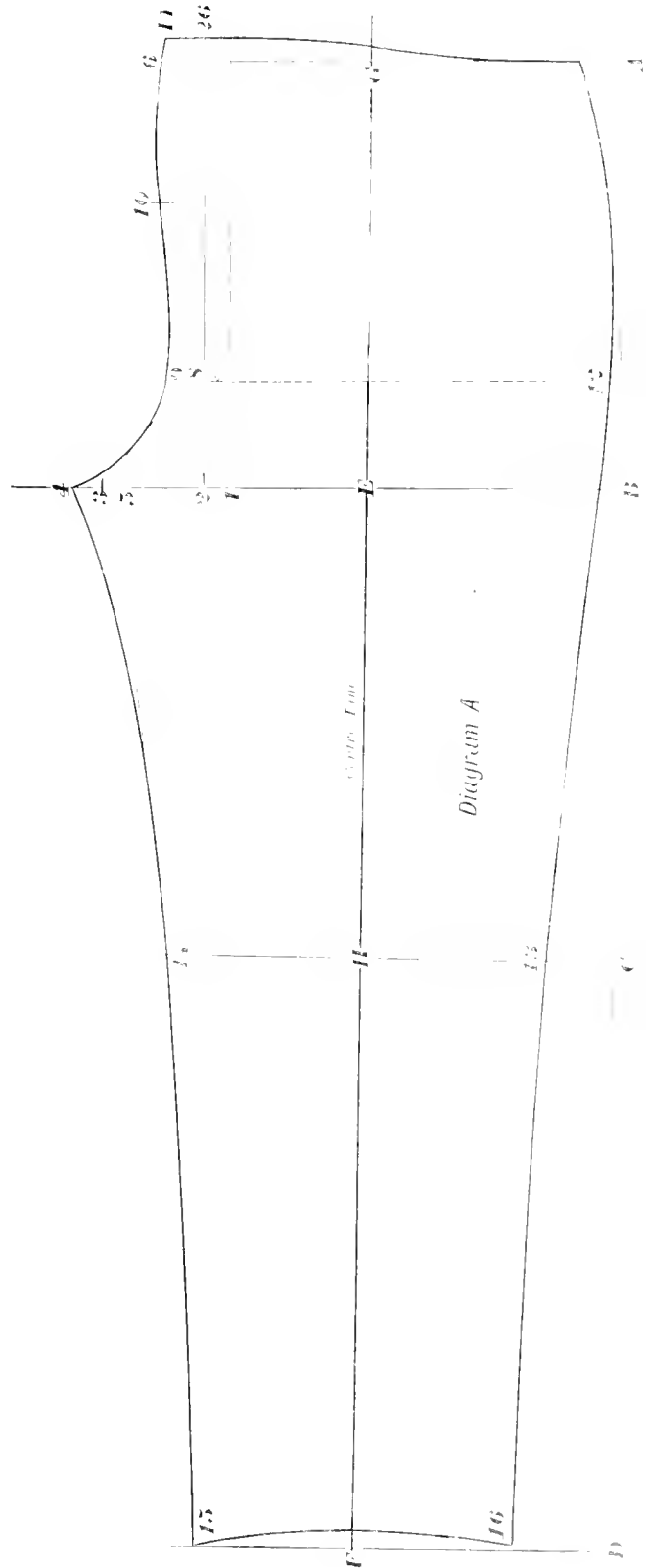
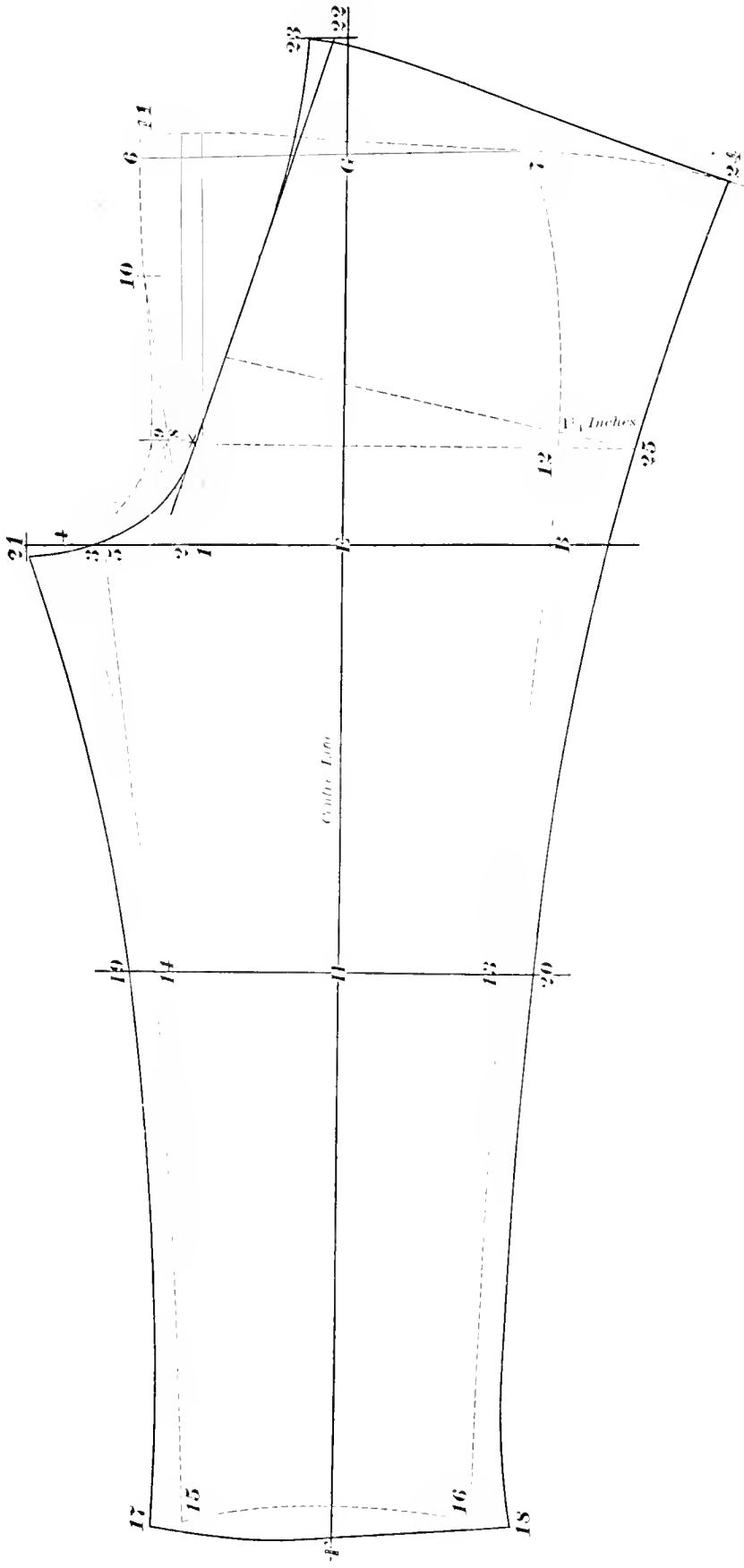
Apply seat measure on dotted line from 8 to 12, and across backpart on dotted line to 25, allowing one inch and a half over half of seat measure for seams and ease.

Add at knee 19 and 20, same amount on both sides to make up the measure and one inch for seams.

Add at bottom 17 and 18, same amount on both sides to make up the measure and one inch for seams.

Shape as shown in diagram.

PLATE XIII.



## EXPLANATION OF PLATE XIV.

## THE CORPULENT FIGURE.

To draft from the following measures:

Outside,	44	Waist,	36	Knee,	27
Inside,	32	Seat,	15	Bottom,	18

In preparing the accompanying draft and explanation I have endeavored to make it simple and comprehensive, so that the average cutter can easily understand it at a glance. This mode of drafting differs slightly from the preceding draft of fat men's trousers; it will be observed that these are cut closer in the front at M, and this draft is swung in at bottom.

Commence drafting by drawing line A B and square across from A to F.

A to B is outside length, 44 inches.

B to C is inside length, 32 inches.

B to D is 7 inches more than half the distance from B to C.

Square lines B, C and D.

C to E is half seat—use division on square.

F to G is one eighth seat.

H is halfway between C and G.

B to K is the same as C to J.

Draw a line from K through J to O.

F to I is  $\frac{1}{2}$  inch.

Square up lines I and J.

I to L back from G and H is  $\frac{1}{2}$  inch forward of G.

K to L is  $\frac{1}{16}$  of seat.

Draw a line from L to J.

Apply one fourth of knee measure each way from U, making it from U to V and U to W one-fourth knee

measure. This is easily obtained by using the knee measure 27 on the fourth.

Next apply the measure at bottom in the following manner: Bottom is 18, use division of one inch less and make it 17 on fourth from L to S and L to T.

Apply waist measure in the following manner: One-fourth waist on division on square from O to P and one fourth from O to Q, which will make the waist one fourth of full measure from Q to P. P to R is the same as Z to P.

Y is one third the distance from P to F and M is  $\frac{1}{2}$  of seat up from B.

Square down from P to Y and draw a line from Y to M and shape as represented.

## THE BACKPART.

Extend construction lines on forepart and add an equal amount at knee and bottom to make up size, and allow one inch for seams as follows:

S to 8 is  $\frac{1}{4}$  inch. T to 7 is  $\frac{1}{4}$  inch.

W to 5 is  $\frac{1}{2}$  inch and V to 6 is  $\frac{1}{2}$  inch.

N to 4 is 1 1/2 inches always.

G to 9 is  $\frac{1}{2}$  seat.

O to 1 is  $3\frac{1}{2}$  inches.

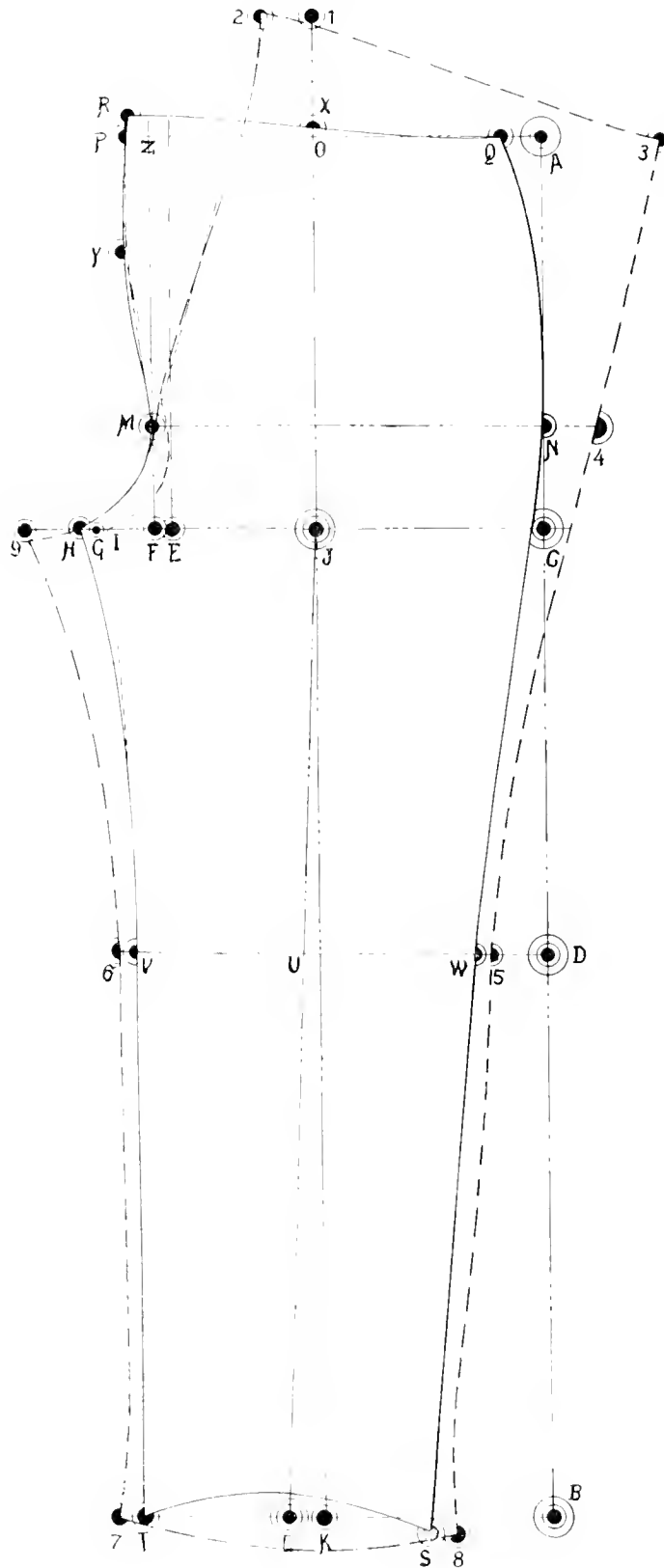
1 to 2 is  $\frac{1}{16}$  waist.

Draw a line from 1 to 2, and draw seat line from 2 to M.

Apply waist measure from R to Q, place this amount at 2 and measure out to 3, one-half of waist measure and one inch for seams.

Shape as represented.

PLATE XIV.



## EXPLANATION OF PLATE XV.

## TROUSERS—NORMAL VERSUS BOW-LEGS

THEORIZING.

THE NORMAL TROUSERS.

Drafted from the following measurements:

Outside,	42	Waist,	32	Knee,	18 $\frac{1}{2}$
Inside,	32	Seat,	37	Bottom,	16 $\frac{3}{4}$

TO DRAFT.

Square out and down from A.

A to B is outside length.

B to C is inside length.

D is 2 inches above half the distance between B and C.

Square lines B, C and D.

C to E is  $\frac{1}{2}$  seat and E to T is  $\frac{1}{2}$  seat.

G is halfway between C and E.

Square up from G to L.

E to I is  $\frac{1}{2}$  inch; square up lines E to L.

B to H is the same as C to G.

Draw a line from G to H.

This line would be the center of the leg providing our client will stand with his feet far enough apart, so that there is the same distance between the two centers of his feet that there is between the two centers of his thighs; but a man will usually stand with feet closer together; the distance between the two centers of his feet will be closer together, hence it is necessary to swing the center line in at the bottom as from H to P  $\frac{1}{16}$  seat, then draw a line from P to G, which line will now recur in the middle of the leg, and from this center line we divide the size of the leg.

M to O and M to N is  $\frac{1}{4}$  of the size of the knee (18 $\frac{1}{2}$  on fourths).

P to Q and P to R is 15 $\frac{3}{4}$  inches on fourths, which will make the width of the forepart at bottom  $\frac{1}{2}$  inch less than half the size; draw lines from N to Q and from O to K.

F to 1 and F to 2 is  $\frac{1}{2}$  inch.

Draw a line from 1 to N.

I to J is  $\frac{1}{2}$  hip. Square across to K.

S to T is  $\frac{1}{2}$  waist; draw a line from K to O and shape forepart as represented.

Cut out pattern and lay forepart on paper. Square across at knee, bottom, seat and waist line.

L to U is 2 inches.

U to V is  $\frac{1}{16}$  waist, and V to W is 1 inch.

J is halfway between lines E and L.

Draw a line from J to V.

2 to Z is  $\frac{1}{16}$  seat.

N to 3 is  $\frac{1}{2}$  inch.

Q to 6 is 1 inch.

R to 5 is 1 inch.

O to 4 is  $\frac{1}{2}$  inch.

K to Y is 1 $\frac{1}{2}$  inches.

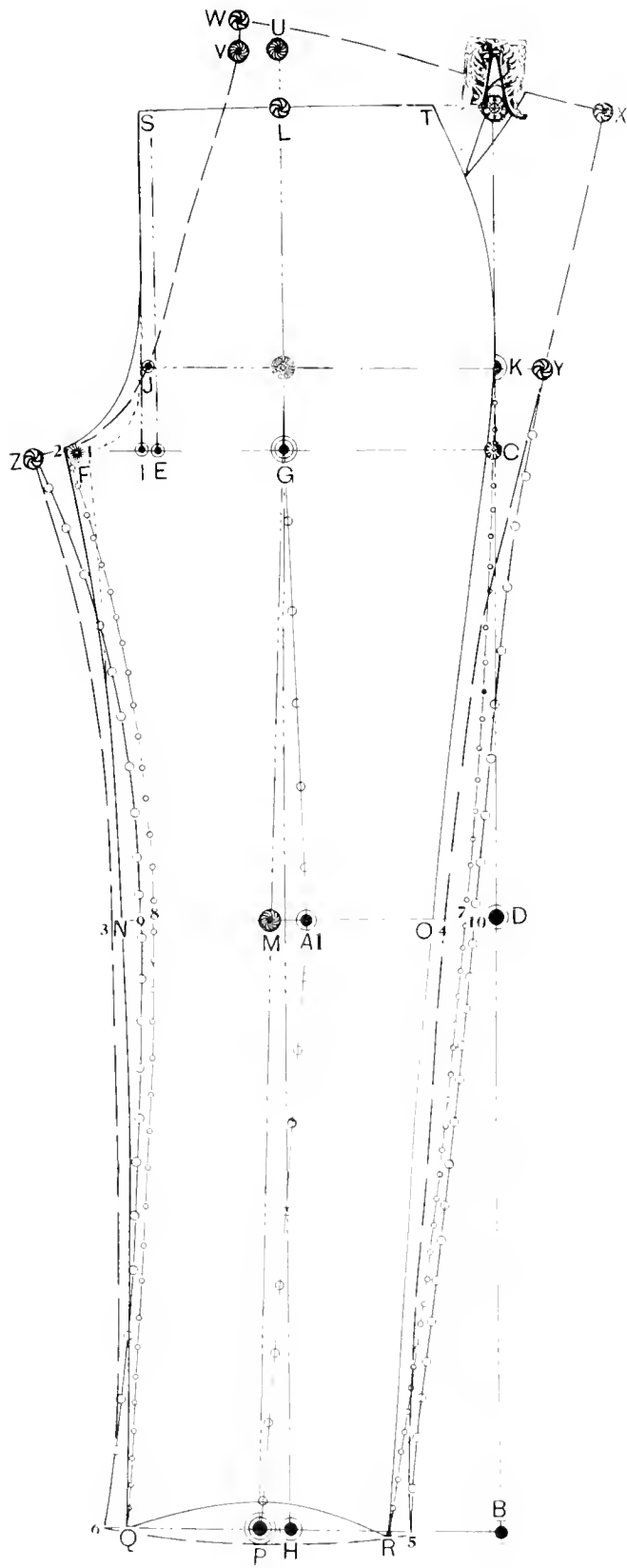
Sweep out from T to X by 4.

Measure forepart from S to T.

Place this at V and measure out to X, half of waist measure, and 2 inches added for V and seams.

This will produce a clean-fitting pair of trousers for a normal figure. But supposing that our client is bow-legged? Is it then necessary to swing in center line at bottom? The normal man stands as close together with his feet as does the man with bow-legs, and as this is the case, why should the trousers be swung in more at the bottom for a bow-legged man than for a client whose legs are straight? The bottom center should be swung in the same for all shapes  $\frac{1}{16}$  of seat, and if a man's legs are bowed—one, two or three inches—the legs should bow out the same. Say, for instance, that this man's legs are bowed out and that the opening between his knees is 2 $\frac{1}{2}$  inches, why should we not bow, out the center line half of this amount? Move the center as from M to A1, 1 $\frac{1}{4}$  inches, or half of the bow and draw a new center line from G to A1 and from A1 to P, then apply the knee measure, using point A1 as center; the forepart will now be as per lines with small circles and the backpart as per lines broken by the larger circles. This is theorizing and I only give this illustration as a theory. In practice I find that the legs must be swung in one-half of the bow at bottom in order to produce a long outside and short inseam.

PLATE XV.



## EXPLANATION OF PLATE XVI.

## CORPULENT AND BOW-LEGGED FIGURE.

## METHOD A.

To draft from the following measures:

Outside,	44	Waist,	46	Knee,	20
Inside,	32	Seat,	45	Bottom,	18

In preparing the accompanying draft and explanation I have endeavored to make it simple and comprehensive, so that the average cutter can easily understand it at a glance.

For bow-legs I swing in one inch extra from W to X at bottom to nothing at the knee. In cutting the back part I take off from the regular draft  $\frac{1}{2}$  inch as at 5, and place this on to the inside of leg as at 6, the legs to be creased on line W.

Commence drafting by drawing line A B and square across from A to P.

A to B is outside length, 44 inches.

B to C is inside length, 32 inches.

B to D is 2 inches more than half the distance from B to C.

Square lines B, C and D.

C to E is half seat (use division on square).

E to G is  $\frac{1}{3}$  seat.

J is half way between C and G.

B to V is the same as C to J.

Draw a line from V through J to O.

E to F is  $\frac{1}{2}$  inch.

Square up lines E and F.

I is  $\frac{1}{2}$  back from G and H is  $\frac{3}{8}$  inch forward of G.

V to W is  $\frac{1}{6}$  of seat.

Draw a line from W to J.

W to X is 1 inch.

Draw a line from S to X.

Apply one-fourth of knee measure each way from S, making it from S to T and S to U one-fourth knee (5 inches). This is easily obtained by using the knee measure 20 on the fourth.

Next apply the measure at bottom in the following manner: Bottom is 18; use division of one inch less and make it 17 on fourth from X to K and X to L.

Apply waist measure in the following manner: One-fourth waist on division on square from O to P and one-fourth from O to Q, which will make the waist one-fourth of full measure from Q to P. P to R is the same as Z to P.

Y is one-third the distance from P to F, and M is  $\frac{1}{3}$  of seat up from F.

Square down from P to Y and draw a line from Y to M and shape as represented.

## THE BACKPART.

Extend construction lines on forepart and add an equal amount at knee to make up size, and allow one inch for seams as follows:

T to 7 is  $\frac{1}{2}$  inch and U to 8 is  $\frac{1}{2}$  inch

K to 5 is  $\frac{1}{2}$  inch and L to G is  $1\frac{1}{2}$  inches.

N to 4 is  $1\frac{1}{2}$  inches always.

G to 9 is  $\frac{1}{2}$  seat.

8 to 9 is  $\frac{1}{8}$  inch less than U to H.

O to 1 is  $3\frac{1}{2}$  inches.

1 to 2 is  $\frac{1}{6}$  waist.

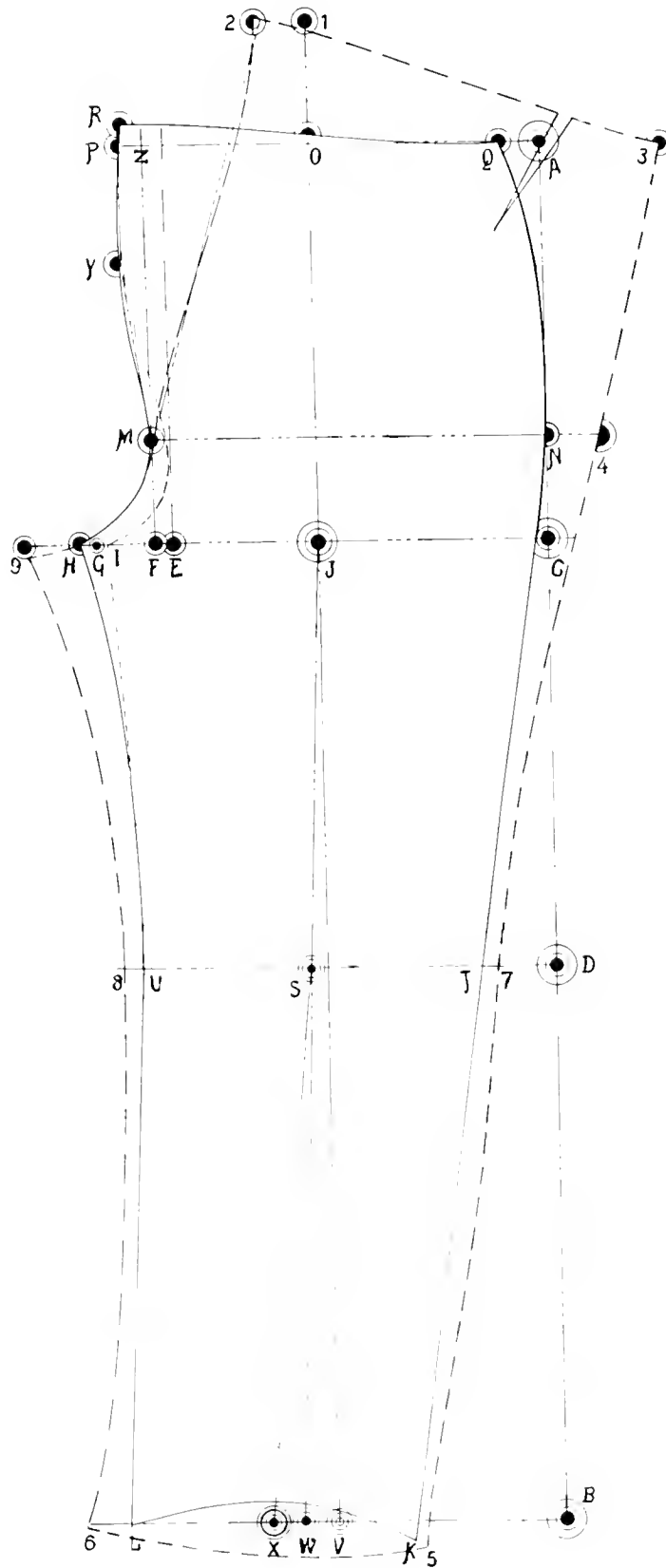
Draw a line from 1 to 2, and draw seat line from 2 to M.

Apply waist measure from R to Q, place this amount at 2, and measure out to 3 one-half of waist measure and two inches for seams, and a  $\frac{1}{2}$  inch V.

Shape as represented.



PLATE XVI.



## EXPLANATION OF PLATE XVII.

## CORPULENT AND BOW-LEGGED FIGURE.

## METHOD B.

The accompanying draft of trousers for a corpulent as well as bow-legged client.

The draft is produced from the following measures:

Outside length,	43	} Abdomen,	50	} Knee,	19 $\frac{3}{4}$				
Inside length,	31		} Seat,		46	} Bottom,	18 $\frac{1}{4}$		
Waist,	48				} Thigh,		27	} Bow,	2

## TO DRAFT.

Square out and down from A.

A to D is outside length.

D to B is inside length.

B to I is  $\frac{1}{2}$  seat.

C is 2 inches above half the distance from D to B.

Square lines B, C, D and I.

B to E is  $\frac{1}{2}$  seat and E to G  $\frac{1}{8}$  seat.

K is halfway between B and G.

D to L is the same as B to K.

Draw a line from L through K to R.

L to M is  $\frac{1}{8}$  seat.

Draw a line from K to M.

X to P and X to Q is  $\frac{1}{4}$  knee measure.

M to O and M to N is  $\frac{1}{4}$  inch less than  $\frac{1}{4}$  bottom measure.

G to H and G to F is  $\frac{1}{2}$  inch.

R to S and R to T is  $\frac{1}{4}$  of entire waist measure (24 on fourths).

S to W is half the amount that there is from Y to S.

U is  $\frac{1}{2}$  of rise down from S.

Square down from S to U and draw a line from U to E.

F to V is half the distance from J to V.

Raise forepart in front from S to W, half the distance that there is from Y to S.

For bow legs it is customary to swing in the forepart

half of the bow, which is one inch, as from M to 15, running out to nothing at X (the knee). This would make the forepart run as per dot and dash line from P to 14 and Q to 16. This is the old way of doing it, but while correct as far as theory goes, it is found that the outside seam usually comes too far forward and causes the center of leg to turn in, so to avoid this I leave the forepart the same for bow legs as I do for normal shapes, but swing the backpart twice the usual amount. This will give the same swing in, but will give the legs a straighter appearance and the stripes will run straight on the legs.

## THE BACKPART.

R to Z is  $\frac{1}{8}$  waist.

Square up to 7.

Z to 7 is 3 inches.

Draw a line from one inch below 7 to  $\frac{1}{4}$  inch out from J.

Apply waist measure from S to T, place this amount at 7 and measure out to 8,  $\frac{1}{2}$  of waist and 1 inch.

Apply measure over abdomen from U to 4, place this amount at 5 and measure out to 6, half of the measure and one inch for seams.

Apply seat measure from J to 1, place this at 2 and measure out to 3, half of seat measure and  $1\frac{1}{4}$  inches for seams and ease.

G to 10 is  $\frac{1}{2}$  seat.

Apply thigh measure from F to 9, place this at 10 and measure back to B, thigh measure, and add  $3\frac{1}{2}$  inches for seams and ease.

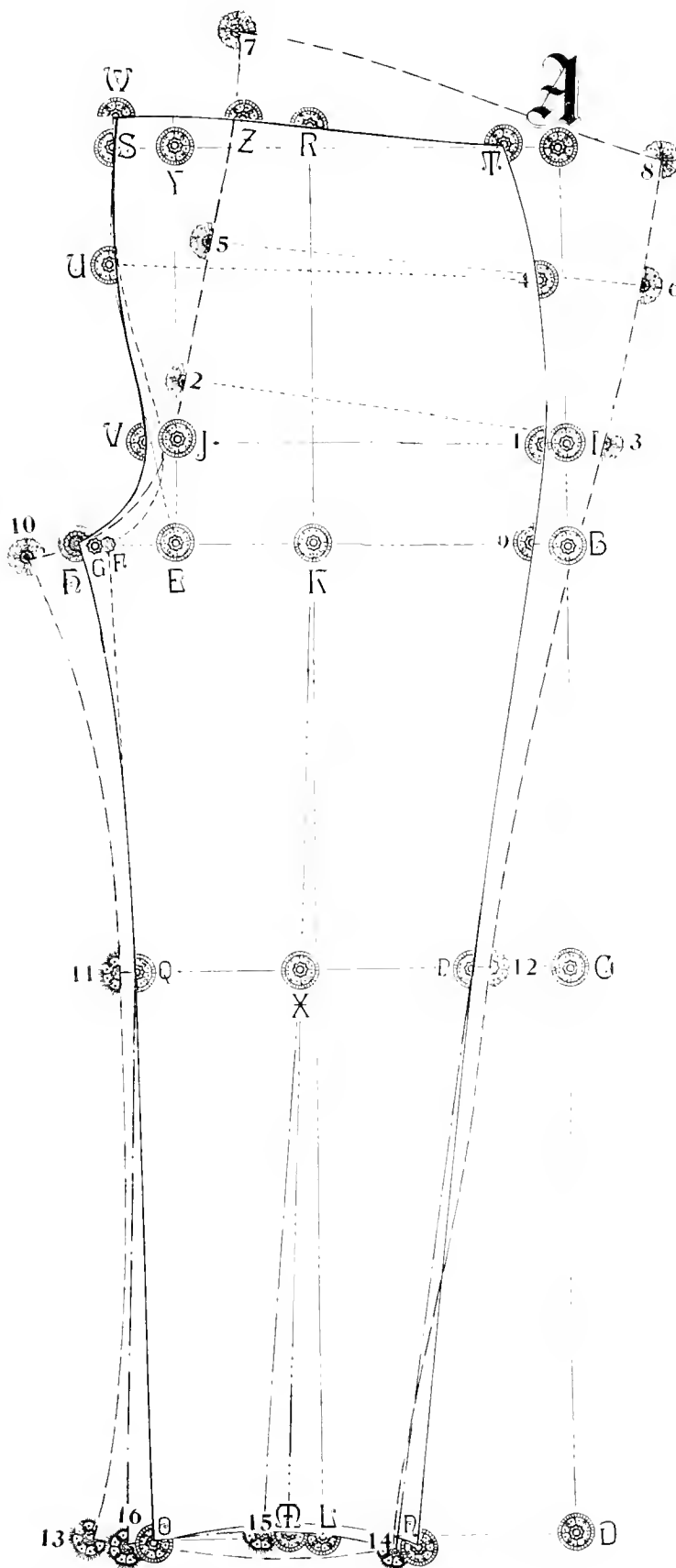
P to 12 and Q to 11 is  $\frac{1}{2}$  inch.

N to 14 is 1 inch.

Measure forepart from N to O, place this amount at 14 and measure back to 13, the full size, and 1 inch added for seams.

The forepart at N is lengthened  $\frac{1}{4}$  inch for every inch that center line is swung in from L to M.

PLATE XVII.



## EXPLANATION OF PLATE XVIII.

## CORPULENT AND BOW-LEGGED FIGURE.

## METHOD C.

I find in cutting trousers for bow-legs that by swinging the forepart in at the bottom the outside seam will come too far towards the center of the foot and the creases will, if in the middle of the forepart, strike an inch or more towards the inside of the knee; so I find it to work much better not to swing the forepart, but instead swing the back part twice the amount as per the accompanying draft, which is produced from the following measures:

Outside,	44	Waist,	48	Knee,	19
Inseam,	32	Abdomen,	50	Bottom,	17 $\frac{1}{2}$
		Seat,	46		

Space between the knees or bow of legs, 3 inches.

## TO DRAFT.

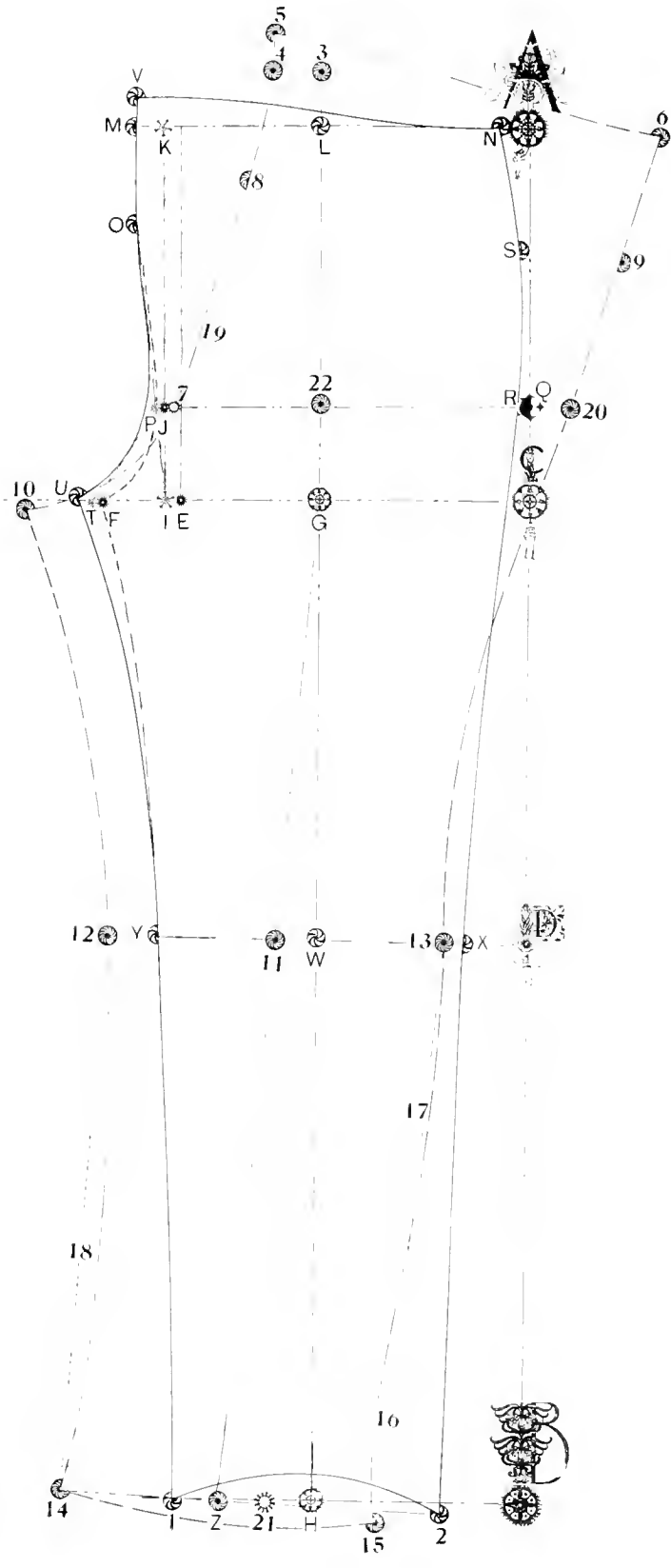
Square out and down from A.  
 A to B is outside length.  
 B to C is inside length.  
 D is 2 inches above halfway between B and C.  
 Square lines B, D and C.  
 C to E is  $\frac{1}{2}$  seat and E to F is  $\frac{1}{2}$  seat.  
 G is halfway between C and E.  
 B to H is the same as C to G.  
 Draw center line from H through G to L.  
 E to I is  $\frac{1}{2}$  inch, square up lines E and I.  
 I to J is  $\frac{1}{2}$  seat, square across J to Q.  
 L to M and H to N is  $\frac{1}{4}$  waist.  
 Square down from M to O.  
 M to O is  $\frac{1}{2}$  of distance from I to K.  
 Draw a line from O to I, and whatever the distance then is from J to P, advance fork from I to T and reduce hip the same amount from Q to R.

Draw a line from P to T.  
 T to U is  $\frac{3}{8}$  inch and T to F is  $\frac{3}{8}$  inch.  
 M to V is the same as K to M.  
 W to Y and W to X is  $\frac{1}{4}$  knee measure.  
 H to 1 and H to 2 is  $\frac{1}{4}$  inch less than  $\frac{1}{4}$  bottom.  
 Shape forepart as represented.

## THE BACKPART.

Extend lines out at seat, knee and bottom.  
 1 to 3 is 2 inches.  
 3 to 4 is  $\frac{1}{8}$  waist and 4 to 5 is 1 inch.  
 7 is halfway between lines E and I.  
 U to 10 is  $\frac{1}{6}$  seat.  
 Measure forepart from V to N; place this at 4 and measure out to 6, half of waist measure, and 1 inch for seams.  
 Measure forepart from O to S; place this at 8 and measure out to 9, one half of abdomen measure, and add 1 inch.  
 Measure forepart from 7 to R; place this at 19 and measure out to 20, half of the seat measure, and add  $1\frac{1}{2}$  inches for seams and ease.  
 H to 21 is  $\frac{1}{6}$  seat, and 21 to Z is half of the bow ( $1\frac{1}{2}$  inches).  
 Draw a new center line for the back part from G to Z.  
 11 to 12 and 11 to 13 is  $\frac{1}{2}$  inch more than  $\frac{1}{4}$  knee, and Z to 14 and 15 is one inch more than  $\frac{1}{4}$  of bottom measure.  
 Draw a line from 13 to 15, add  $\frac{1}{4}$  inch as at 17 and hollow out  $\frac{3}{8}$  inch as at 16, then draw a line from 12 to 14 and hollow inseam  $\frac{1}{2}$  inch as at 18.  
 The outside seam for bow legs must be lengthened as at 2 and 15 one fourth of the amount that back part is swung in from H to Z, the crease line on forepart will be on line W H, and on the back part on line 11Z.

PLATE XVIII.



## EXPLANATION OF PLATE XIX.

## VARIATION IN TROUSERS.

To more fully understand the variations in trouser cutting it is necessary to start at the normal point, so I will begin by giving the draft of a normal pair of trousers from the following measurements:

Outside,	42	Waist,	34	Knee,	19
Inside,	32	Seat,	39	Bottom,	17

## TO DRAFT.

Square lines A B and A R.  
 A to B is outside length.  
 B to C is inside length.  
 D is 2 inches less than halfway from B to C.  
 Square out C, D and B.  
 C to E is  $\frac{1}{2}$  of seat on division.  
 E to F is  $\frac{1}{2}$  of seat.  
 E to G is  $\frac{1}{2}$  inch.  
 1 is  $\frac{2}{8}$  inch from F.  
 2 is  $\frac{2}{8}$  inch from F.  
 Square up lines E and G.  
 G to X is  $\frac{1}{4}$  seat. Square out to T.  
 H center line is halfway between C and E.  
 B to J is the same as from C to H.  
 J to K is  $\frac{1}{8}$  seat.  
 Draw line from K to H and square up from H to L.  
 L to M and to N is  $\frac{1}{4}$  entire knee measure each way.  
 K to O and K to P is  $\frac{1}{4}$  inch less than  $\frac{1}{4}$  entire bottom measure each way.  
 R to O is  $\frac{1}{2}$  waist on division.  
 Shape and cut out forepart; lay on paper and mark out lines at seat, knee and bottom.

1 to 15 is 3 inches in all cases.

15 to 17 is 1 inch, and 17 to 18 is  $\frac{1}{6}$  waist in all cases;

for normal trousers draw seat line from 18 to X and shape from X to 4.

1 to 4 is  $\frac{1}{6}$  seat for close fit and  $\frac{1}{2}$  for an easy stride.

N to 12 and M to 11 is  $\frac{1}{2}$  inch each way.

K to 13 and K to 14 is 1 inch each way.

T to 3 is  $1\frac{1}{2}$  inches in all cases.

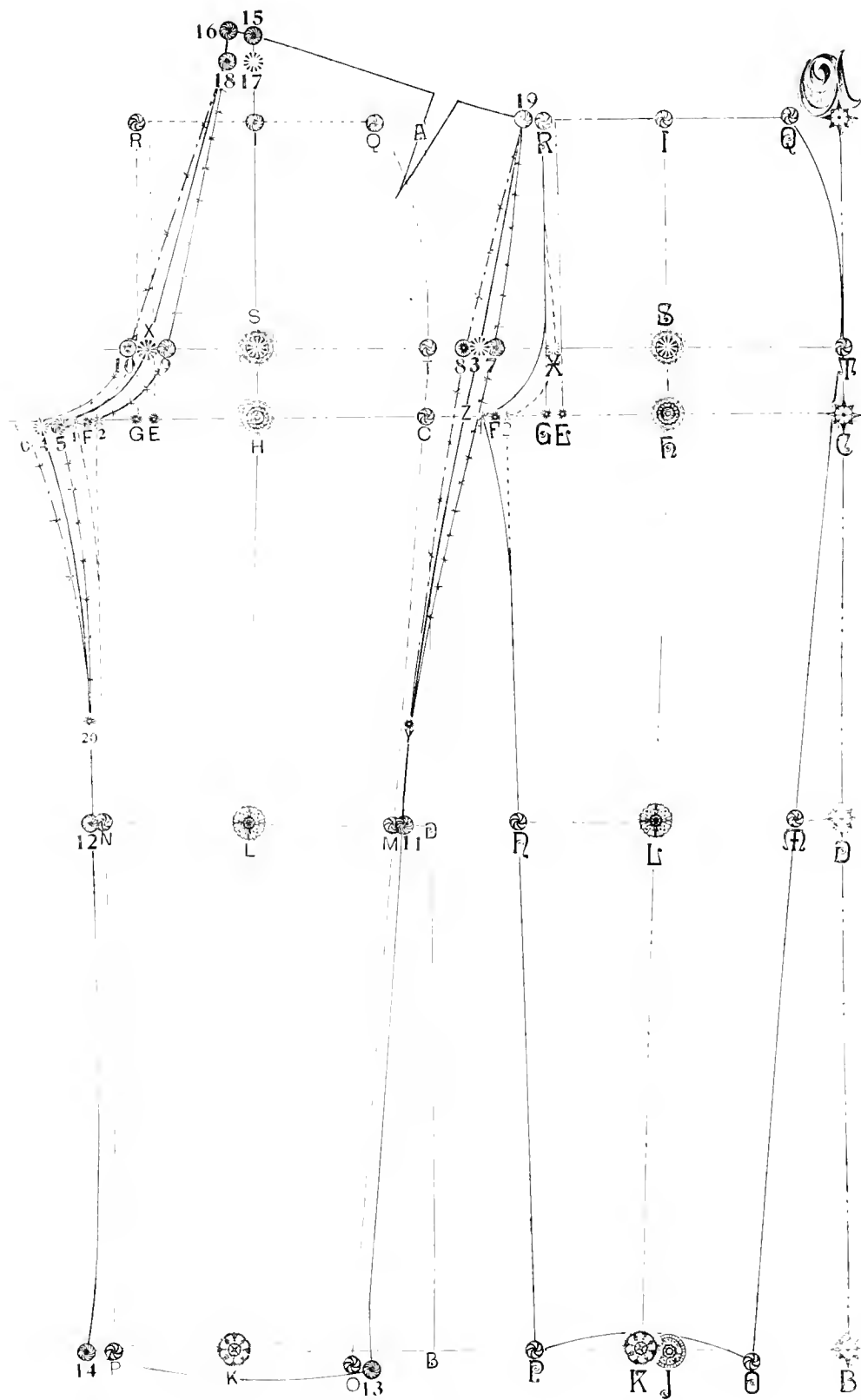
Apply waist measure from R to Q. Place this at 18

and apply measure back to 19,  $\frac{1}{2}$  waist and  $1\frac{3}{4}$  inches, and take out a  $\frac{1}{2}$  inch V in back part.

The distance from C to Z is  $\frac{1}{6}$  seat.

This will complete the proportionate trousers. If we have a flat-seated figure to cut for, I recede from X to 9 and add from 3 to 7 same amount, and recede from 4 to 5 same amount. For a full seat I advance the seat line from X to 10 and 4 to 6 and take off same amount from 3 to 8, running out to nothing at Y and 20 and 18 and 19. The theory on which I base these changes is that the waist in the back and side remains on the same points whether the seat is full or flat, hence the top of back part should not be disturbed. In a flat seated figure it is evident to all cutters that less goods is required from point S to X and H to 4; hence I recede from X to 9 from  $\frac{1}{4}$  to 1 inch, also recede from 4 to 5 same amount, and whatever I have receded from H to 9 I add to hip from 3 to 7. This will give a flat seat and a prominent hip, or, as cutters term it, a straight back part. If a large seat, I advance the seat from X to 10 and 4 to 6 and 3 to 8, so as to get more goods in the seat from S to 10 and H to 6, and less from S to 8 and H to Z.

PLATE XIX.



## EXPLANATION OF PLATE XX.

### LARGE HIPS, SMALL WAISTS, ETC.

In cutting trousers for men with large hips the bow-legged men's method must be used, as the large hip will take up extra length on the outside, and by so doing will produce a long inside seam just below the tork, and will only fit smooth when customer stands apart with his feet 6 to 10 inches; this clearly shows that the legs should be swung in at the bottom, for if the inside seams of trouser legs were ripped opened they would not follow the legs, but hang off on the outside when standing with feet closed together. I have found the man with a flat seat the most difficult to fit in trousers, he usually has a large hip and is very tender over the abdomen; I therefore allow one-half inch extra cloth in front at 6, diagram A, for such men, making the waist one inch wider than measure taken; also have the suspender buttons set further back so as not to cause a drag on the front over the abdomen.

In cutting the backpart, add from 1 to 1½ inches at 23, diagram B, running out to nothing at star and take off same amount at 24, tapering to nothing at 25. This will give a straight seat and a large hip.

### SMALL WAIST.

For a very small waist, nothing should be taken off the waist in front at 6, diagram A, but all should be reduced in the side, otherwise the regular normal shape should be used for this form, as he is not considered a large hip, but a small waisted man.

How to determine whether customer has large hips, small waist, or both:

In order to fully explain this it will be necessary to first give the proportions of the human form. An average man will measure 5 feet 8 inches in height, his breast 36 inches, waist 32 and seat 37 inches; his waist therefore is four inches less than the breast and five inches less than the seat, and the seat being one inch larger than the breast.

36 breast, 32 waist and 38 seat is a large seat.

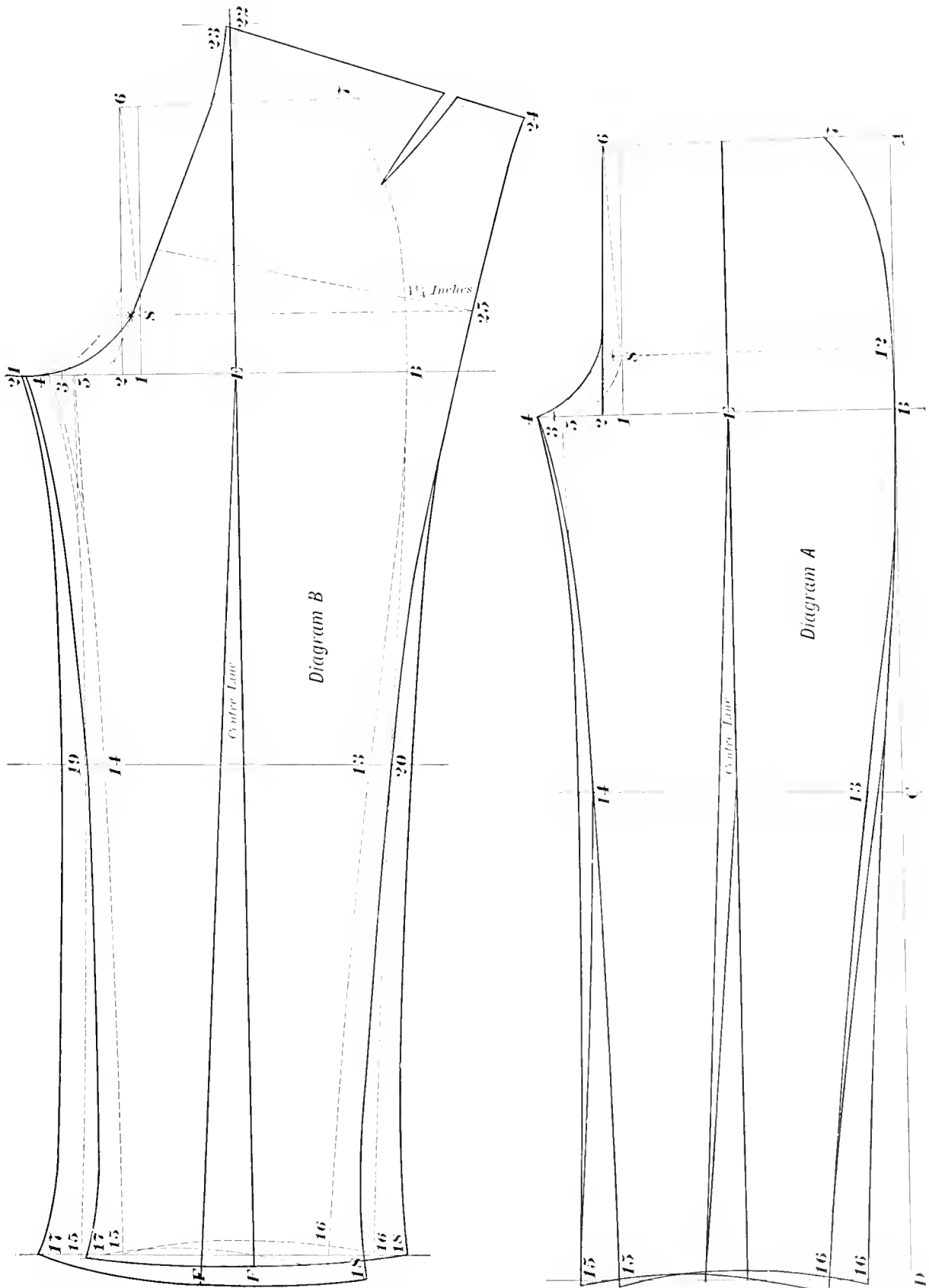
36 breast, 30 waist and 37 seat is a small waist.

36 breast, 30 waist and 38 seat is a small waist and large seat.

This comparison will illustrate what is meant by large seat and small waist, and if this method is followed out, you will find that it will produce perfect fitting trousers in every respect.



PLATE XX.



## EXPLANATION OF PLATE XXI.

## THE BICYCLE KNICKERS.

In order to properly find the inside length of leg correctly it is necessary to take the full length of the inseam the same as for ordinary trousers. Half of the inside length and three inches added will be a good average length of leg when a cuff is added, and when the bottom is finished with a narrow band, four inches should be added to half the length of the leg measure. By using this method the cutter will have some guide to go by instead of using the length of leg to the knee, which, in most cases, is very uncertain, at least very few seem to be able to take this length correctly. The accompanying diagram is produced from the following measures:

Inside length,	32	Seat,	38
Rise,	$10\frac{1}{2}$	Knee,	18
Waist,	34	Below the knee,	14

## TO DRAFT.

Square out and down from A.  
 A to B is rise,  $10\frac{1}{2}$  inches.  
 B to C is 16 inches, being half the length of leg.  
 C to D is 3 inches.  
 B to H is  $\frac{1}{2}$  seat.  
 Square lines H, B, C and D.  
 B to E is  $\frac{1}{2}$  seat.  
 E to F is  $\frac{1}{2}$  seat.  
 E to I is  $\frac{1}{2}$  and F to J is  $\frac{3}{4}$  inch.  
 Square up lines E and I.  
 The front of forepart at X is advanced and lowered  $\frac{1}{2}$  inch from the regular.  
 X to Y is  $\frac{1}{2}$  waist.  
 G is halfway between B and F.  
 Square up and down from G.  
 Place corner of square at K and measure out to L, 17 on fourths on the square, being one size less than knee measure. Then turn square around and measure from K to M, 15 on fourths, being three sizes less than knee. The forepart from L to M will measure one inch less than half of knee measure.  
 P to Q is 14 on sixths, and P to K is two seams more

than  $\frac{1}{3}$ , making the width at bottom two seams more than  $\frac{1}{3}$  of 14, which is the measure around the small of leg; the forepart must be lengthened  $\frac{1}{2}$  inch below point P.

X to 1 and Y to 2 is  $1\frac{3}{4}$  inches, for waistband, which must be left on.

## THE BACKPART.

W to Z is  $3\frac{1}{2}$  inches for all sizes.

Measure forepart from X to Y. Place this at Z and measure out to 5 one-half of waist measure and add  $2\frac{1}{4}$  inches;  $\frac{3}{4}$  inch is taken out in a V from 3 to 4 and  $1\frac{1}{2}$  inches allowed for seams.

Draw a line from Z to 8.

J to 13 is  $\frac{1}{2}$ .

L to 11 is  $1\frac{1}{4}$  and M to 12 is  $2\frac{1}{2}$  inches.

Take out a V of one inch as from U to S and hollow it out a trifle just below K and taper up to 14, which is  $1\frac{1}{2}$  inches above K.

U S is  $\frac{3}{4}$  inch above point P.

U to V is  $\frac{1}{2}$  inch more than  $\frac{1}{3}$  of measure (use  $16\frac{1}{2}$  on thirds), and S to T is one inch more than  $\frac{1}{3}$  of measure (use 18 on thirds). The bottom will now be  $14\frac{1}{2}$ , which is  $\frac{1}{2}$  inch more than the actual measure. This extra amount of fullness is worked in on the forepart from R to Q. The foreparts are also full on the back opposite the knee so as to produce a cup shape over the knee.

B to 10 is  $\frac{1}{2}$  inch more than  $\frac{1}{2}$  seat, and H to 9 is  $\frac{1}{8}$  seat.

The waistband from 5 to 6 is  $1\frac{3}{4}$  and from Z to 7 is  $1\frac{1}{2}$  inches.

The opening from T to O is 2 inches, and should be closed with a button or glove fastener.

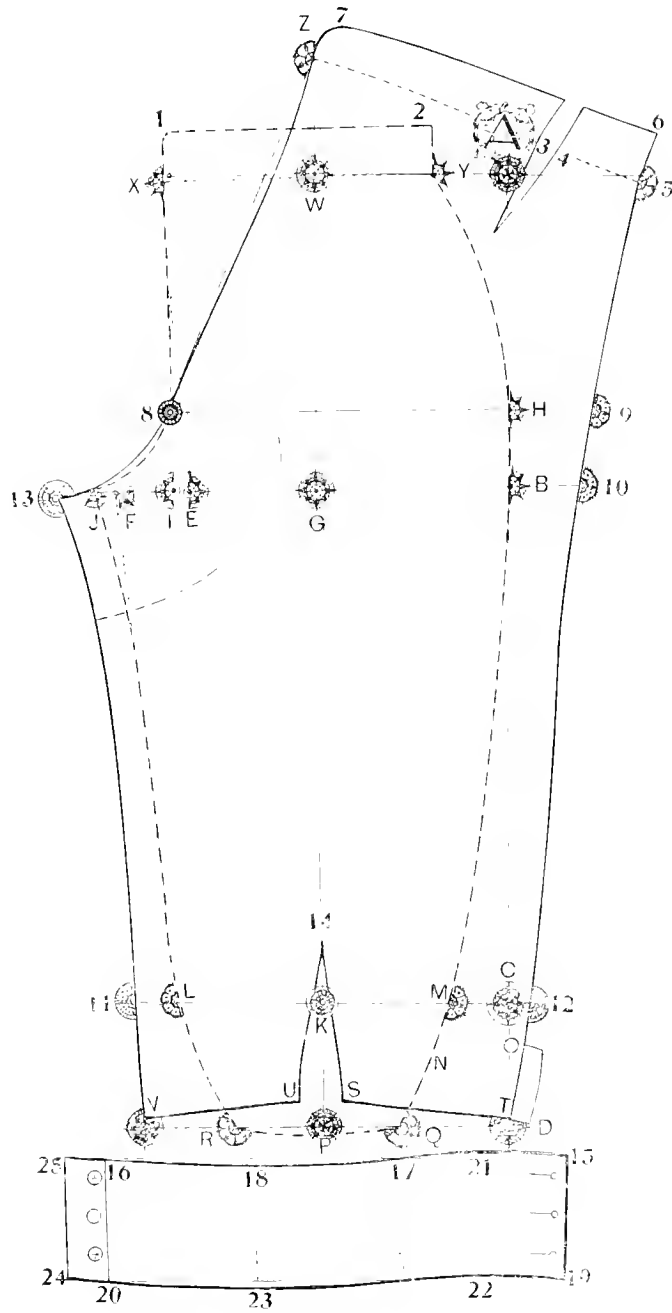
The cuff is 4 inches wide and closes with 3 buttons and holes.

Draw a line from 15 to 25 and square down from 15 to 19 and mark off 4 inches; then square out from 19 to 24, raise the top  $\frac{1}{4}$  inch at 21 and lower  $\frac{1}{4}$  inch at 18; raise same amount at 22 and lower at 23.

15 to 16 and 19 to 20 is 14 inches.

20 to 24 and 16 to 25 is  $1\frac{1}{4}$  inches from button stand.

PLATE XXI.



## EXPLANATION OF PLATE XXII.

## BICYCLE KNICKERS.

WITH CUFF ATTACHED.

The Bicycle Knickers are best drafted from the regular measure of a pair of trousers with an additional measure taken around the knee.

The draft is made from the following measures:

Outside,	-	42	Knee,	-	$12\frac{1}{2}$
Inseam,	-	32	Small of leg below knee,		13
Waist,	-	32	Bottom of cuff over		
Seat,	-	37	top of calf,		$13\frac{1}{2}$

TO DRAFT.

Square out and down from A.

A to B is 10 inches, being the difference between the outside and inside lengths.

B to C is 16 inches, half of the actual length of the leg.

C to D is  $2\frac{1}{2}$  inches, which is the full length to below the knee with allowance for extra length needed for the bend of the knee when in a sitting posture.

D to E is  $3\frac{1}{2}$  inches cuff.

Square lines B, C, D and E.

B to F is  $\frac{1}{2}$  seat, and F to G is  $\frac{1}{8}$  seat.

H is half way between B and G.

E to L is the same as B to H.

Draw center line from L through K, J, H and I.

F to M is  $\frac{1}{2}$  inch. Square up from M to 1.

1 to N is  $\frac{1}{2}$  inch, N to 2 is  $\frac{1}{2}$  inch, and 3 to O is  $\frac{1}{2}$  inch, thus advancing and lowering the forepart in front and raising it in the side  $\frac{1}{2}$  inch.

2 to O is  $\frac{1}{2}$  waist.

B to S is  $\frac{1}{2}$  inch.

G to U and V is  $\frac{3}{8}$  inch.

K to 11 and L to 14 is 1 inch.

11 to 12 is  $\frac{1}{2}$  of small of knee ( $1\frac{1}{3}$  on thirds).

14 to 13 is  $\frac{1}{3}$  of the bottom measure ( $1\frac{1}{2}$  on thirds.)

J to Y is  $\frac{1}{5}$  knee measure and J to X  $\frac{1}{4}$  knee measure.

O to 5 and 2 to 4 is  $1\frac{3}{4}$  inches, waistband.

Shape forepart as represented.

The backpart is represented by a broken line and drafted from the forepart.

I to P is  $1\frac{3}{4}$  inches.

P to Q is  $1\frac{3}{4}$  inches.

U to W is  $\frac{1}{2}$  seat.

S to T is  $1\frac{3}{4}$  inches.

L to 16 and L to 15 is  $\frac{1}{2}$  inch more than  $\frac{1}{3}$  of measure at bottom of cuff.

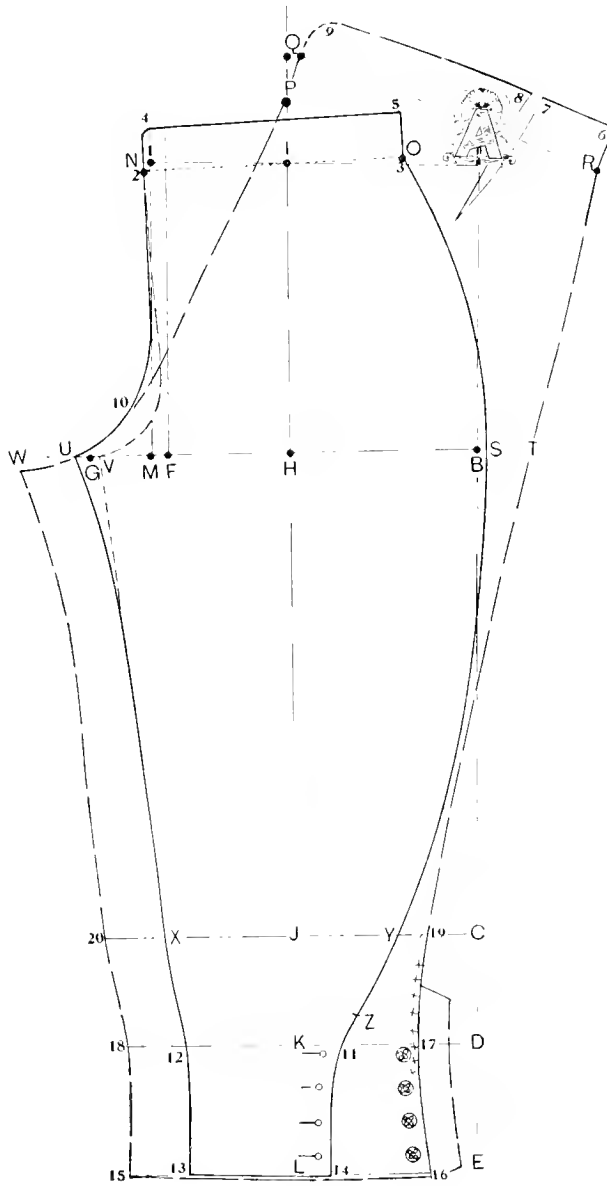
K to 17 and K to 18 is  $\frac{1}{2}$  inch more than  $\frac{1}{3}$  of small of knee measure.

J to 19 is  $\frac{1}{2}$  inch more than  $\frac{1}{4}$ , and J to 20 is  $\frac{1}{2}$  inch more than  $\frac{1}{3}$  knee measure.

Apply waist measure from 2 to O. Place this at Q and measure back to R, half of waist measure plus  $2\frac{1}{2}$  inches for seams, and 1 inch V taken out in backpart between 7 and 8. Add waistband from R to 6, and Q to 9.

The cuff closes with 4 buttons and buttonholes, and the opening on the outside extends up to point Z, which is  $1\frac{1}{2}$  inches above point 11. A button stand is left on the backpart, as at point 16 and 17. The backpart should be stretched opposite point 17, so as to make it fit smoothly in the bend of knee. There are six belt straps, one in each side seam and the others evenly spaced. The widths of the straps should be scant  $\frac{1}{2}$  inch, and the length of strap the width of the belt, usually  $1\frac{3}{4}$  inches.

PLATE XXII.



## EXPLANATION OF PLATE XXIII.

## SPLIT FALL RIDING BREECHES.

The accompanying diagrams of Gentlemen's Riding Breeches are made with a narrow split fall which extends down two thirds of the rise of waist. The width of the fall is 2 inches wide at top of the waist-band and 3 inches at the lower end of opening. There is a regular fall bearer which fastens with two buttons in front under the split fall. The inside of the legs are reinforced with the same cloth. The legs extend down to the ankle and leggins are to be worn with this particular style of breeches.

The draft is produced from the following measures:

Rise of waist,	9 $\frac{1}{2}$	Knee,	17
Inseam,	33	Small of leg below the knee,	13 $\frac{1}{2}$
Waist,	34	Calf,	14
Seat,	38	Ankle,	9 $\frac{1}{2}$

## TO DRAFT THE FOREPART—FIGURE A.

Square out and down from A.  
 A to B is 9 $\frac{1}{2}$  inches rise (one-fourth of seat).  
 B to C is 2 inches less than  $\frac{1}{2}$  of leg (14 $\frac{1}{2}$  inches).  
 C to D is 3 inches.  
 B to E is 2 $\frac{1}{2}$  inches less than inseam.  
 Square lines B, C, D and E.  
 B to G is  $\frac{1}{2}$  seat and G to H is  $\frac{1}{2}$  seat.  
 K is halfway between B and H.  
 E to N is the same as B to K.  
 Draw center line through K and L; advance from G  $\frac{1}{2}$  inch and square up to I.  
 F to P is  $\frac{1}{2}$  inch.  
 Lower waist in front  $\frac{1}{2}$  inch from P to 1, and raise side at hip as from 2 to Q,  $\frac{1}{2}$  inch.  
 P to Q is  $\frac{1}{2}$  waist.  
 B to 3 is  $\frac{1}{4}$  inch.  
 H to I and H to J is  $\frac{1}{2}$  inch.  
 Apply knee measure,  $\frac{1}{4}$  of knee each way from I to S and I to T, 17 on fourths.  
 M to U and M to V is 14 on fourths and at point 11 is 13 on fourths each way to 7 and 8.  
 The first measure at M is  $\frac{1}{2}$  inch more and the second at 11 is  $\frac{1}{2}$  inch less than the small of knee.  
 N to W and N to X is 10 on eighths each way from N,  $\frac{1}{2}$  of ankle measure each way.  
 The width of the waist band which in this case is added to the breeches is 1 $\frac{1}{2}$  inches.  
 In order to get the outside seam to run towards the middle of leg in front reduce the forepart as from 5 to 6, 8 to 9, U to Z, 8 to 11, 6 to 12 and W to X. The exact amount to be cut off from the forepart varies

a little according to size of leg, as well as to style and fancy, and whatever is taken off from forepart must be added to the backpart.

The reinforcement on inside of leg extends forward towards the knee and is cut so as to give the forepart a uniform tapering shape. The opening on outside begins at point Z. The buttons are spaced 1 $\frac{1}{4}$  inches apart.

## THE BACKPART—FIGURE B.

Cut out forepart and place it on drafting paper, the shaded portion being the forepart.

Y to Z is  $\frac{1}{2}$  seat.

O to 15 is  $\frac{1}{2}$  inch.

R to 26 is  $\frac{3}{4}$  inch.

9 to 10 is  $\frac{3}{4}$  inch.

X to 1 and X to 2 is  $\frac{1}{2}$  inch.

W is 2 inches up from line O P.

V to 4 and V to 5 is  $\frac{1}{2}$  inch.

Apply knee measure 17 from O to P, place this at 15 and measure out to L, 18 $\frac{1}{2}$  inches.

Apply small of knee from R to Q, place this at 26, measure across to 2 and 1 to 14 half of small of knee and 1 $\frac{1}{2}$  inches added, then apply small of knee from T to S, 12 to 17 and 13, deducting the V and add 1 $\frac{1}{2}$  inches for seams.

The calf measure is next applied from 9 to 8 and 10 to 11, to this add 1 $\frac{1}{2}$  inches. Next apply the ankle measure from U to V, place this at 6, measure back to 5 and 4 to 7 and add 1 $\frac{1}{4}$  inches for seams.

The opening extends to Q and the first button is 1 $\frac{1}{4}$  inches down to S. By first locating the inside seam of backpart it is an easy matter to get the outside seam, as whatever has been cut off from the forepart will be added to the backpart, which the measures will call for.

The backpart is cut  $\frac{1}{4}$  inch shorter from the knee line down. The forepart is to be held in at points O and P, and the backpart stretched from 15 to 26 and 16 to 13. A button stand is left on the outside of the backpart as from 14 to 7.

A to C is 2 inches and C to B is 4 inches.

B to D is 1 $\frac{1}{2}$  inches.

Sweep out from I to G by L.

Apply waist measure from E to F, place this at D and measure back to G, half of waist measure and 2 $\frac{1}{2}$  inches for seams, and a V. From I to H is 1 inch.

The width of waist band is 1 $\frac{1}{2}$  inches.

The inside reinforcement extends from the crotch down to the calf of the leg as per points 23, 24 and 25.

PLATE XXIII.

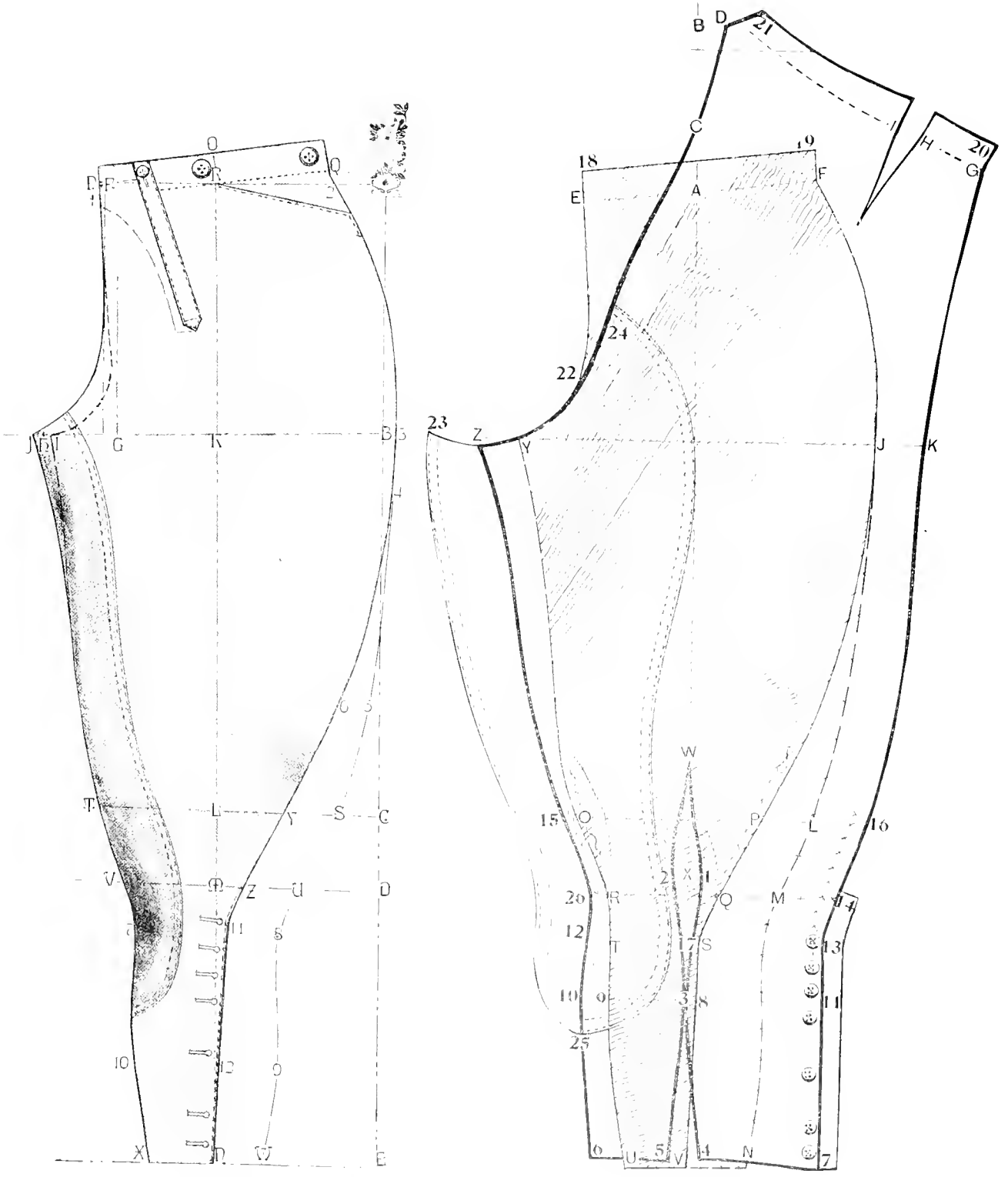


FIG. A.

FIG. B.

## EXPLANATION OF PLATE XXIV.

## RIDING BREECHES.

The legs of the breeches extend down to the ankle, and riding boots are usually worn with this particular style of breeches. The inside of the legs are reinforced with the same cloth, and the lower part of legs are cut off and finished with a lighter weight material.

The draft is produced from the following measures:

Rise of waist,	-	$9\frac{1}{2}$	Knee,	-	17
Inseam,	-	33	Small of leg below knee,	$13\frac{1}{2}$	
Waist,	-	34	Calf,	-	14
Seat,	-	38	Ankle,	-	$9\frac{1}{2}$

## TO DRAFT.

Square out and down from A.

A to B is  $9\frac{1}{2}$  inches rise (one-fourth of seat measure).

B to C is 2 inches less than  $\frac{1}{2}$  of leg ( $14\frac{1}{2}$  inches).

C to D is 4 inches.

B to F is  $3\frac{1}{2}$  inches less than inseam, and F to E is 6 inches.

Square lines B, C, D and E.

B to H is  $\frac{1}{2}$  seat and H to I is  $\frac{1}{8}$  seat.

J is halfway between B and I.

F to O is the same as B to J.

Draw center line through J and O.

H to 5 is  $\frac{1}{2}$  inch, and U to 3 and I to 4 is  $\frac{3}{8}$  inch.

Lower waist in front  $\frac{1}{2}$  inch from G to 2 and raise side at hip as from W to 1, one-half inch.

2 to 1 is  $\frac{1}{2}$  waist.

B to V is  $\frac{3}{4}$  inch.

Apply knee measure  $\frac{1}{4}$  of knee each way from K to U and K to F ( $17$  on fourths).

M to S and M to R is  $\frac{1}{4}$  small of knee each way ( $14$  on fourths).

The width of the waist-band, which in this case is added to the breeches, is  $1\frac{1}{2}$  inches.

In order to get the outside seam to run towards the middle of leg in front reduce the forepart as from T to 6, R to 7, and P to 8.

The exact amount to be cut off from the forepart varies a little according to size of leg, as well as to style and fancy, and whatever is taken off from forepart must be added to the backpart.

The reinforcement on inside of leg extends forward towards knee and is cut so as to give the forepart a uniform tapering shape. The opening on outside

begins at point 7. The buttons are spaced  $1\frac{1}{4}$  inches apart.

## THE BACKPART—DIAGRAM.

Cut out forepart and place it on drafting paper, the shaded portion being the forepart.

3 to 23 is  $\frac{1}{2}$  seat.

U to 22 is  $\frac{1}{2}$  inch.

S to 21 is  $\frac{3}{4}$  inch.

Apply the knee measure, 17 inches, from U to 6, place this at 22 and measure out to 16, eighteen inches.

Apply small of knee from S to 7, place this at 21, measure across to 15, small of knee measure and 1 inch added.

The calf measure is next applied from Q to 8 and 13 to 14; to this add 1 inch. Next apply the ankle measure from 30 to 29, place this at O, measure back to 28 and add 1 inch for seams.

The opening extends to 7 and the first button is  $1\frac{1}{4}$  inches down from 7. By first locating the inside seam of backpart it is an easy matter to get the outside seam, as whatever has been cut off from the forepart will be added to the backpart, which the measure will call for.

The backpart is cut  $\frac{3}{4}$  inch shorter from the knee line down. The forepart is to be held in at points U and 6, and the backpart stretched from 15 to 16 and 21 to 22. A button stand is left on the outside of the backpart as at 14 and 15.

L to 24 is 2 inches, and 24 to X is 4 inches.

X to Y is  $1\frac{1}{2}$  inches.

Sweep out from W to 20 by C.

Apply waist measure from 2 to 1, place this at Y and measure back to 20, half of waist measure and  $2\frac{1}{2}$  inches for seams and a V.

25 to 26 is 1 inch.

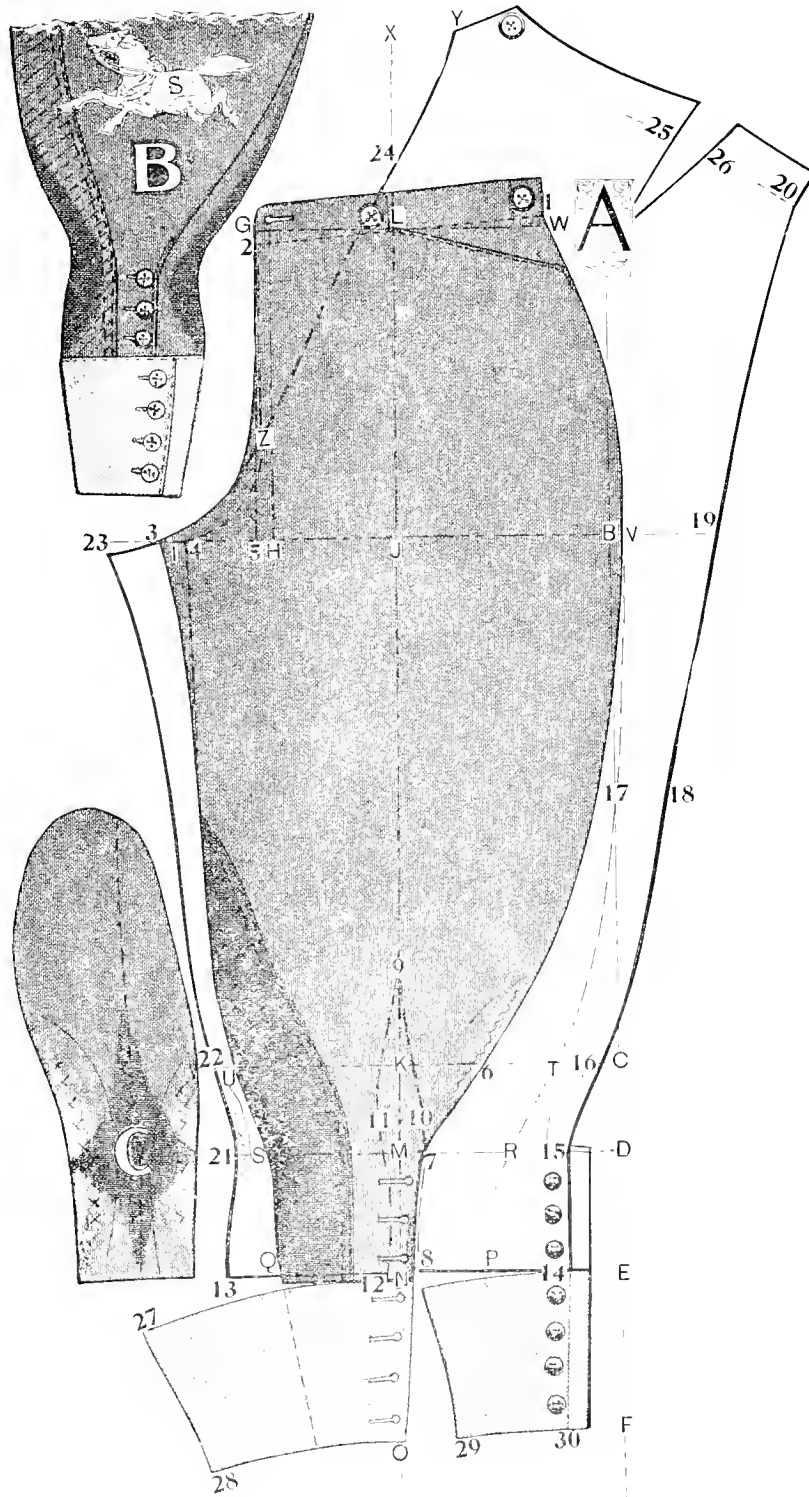
The width of waist-band is  $1\frac{1}{2}$  inches; the inside reinforcements extend from halfway between the crotch and knee and is stretched onto the forepart as indicated by dotted lines.

Diagram C represents the reinforcements, and Diagram B represents the leg finished.

The lower portions or continuation of the legs as from E to F, are in this case cut separate and from a lighter weight material so as to make this part more pliable, easier on the leg of the wearer.



PLATE XXIV.



## LEGGINS.

The leggin is drafted by laying front and backpart together as per dotted lines on leggins.

There are seven buttonholes and buttons on the leggins. Draw a line on the center of backpart and make a seam on the leggin as per line B, E, F.

Cut out at B whatever the distance is between the forepart and backpart at A.

The width of the leggin to be  $\frac{1}{2}$  inch more than the leg A, B, C and D.

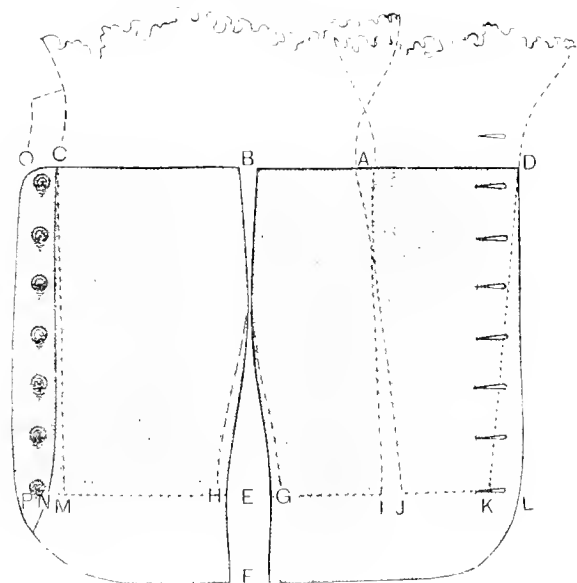
E to H and E to G is  $\frac{1}{2}$  inch, and  $\frac{1}{2}$  inch is taken out at F.

G to I is the same as B to D, and H to N is the same as B to C.

A button stand is left on the outside of both the leg and the leggin. For length of leggin apply the inside length of leg and add one inch to regular measure.

The leggins are fastened onto the leg by a buttonhole in the seam of the leggin  $\frac{1}{2}$  inch below B, and a small buttonhole tab is sewed on to the leggin so that it buttons onto the end button on the outside of the leg.

The bottom of the leggins have strap sewed on to the leggin on the inside and buttoned or buckled onto the outside of the leggin.



**LEGGINS AND OVERGAITERS.**

**DIAGRAM A.**

This diagram illustrates another style of leggins used with riding breeches. There is only one seam in them, and that is in the back. Buttons and buttonholes are on the outside; the buttons must be spaced so as to correspond with buttons on the breeches above the leggins.

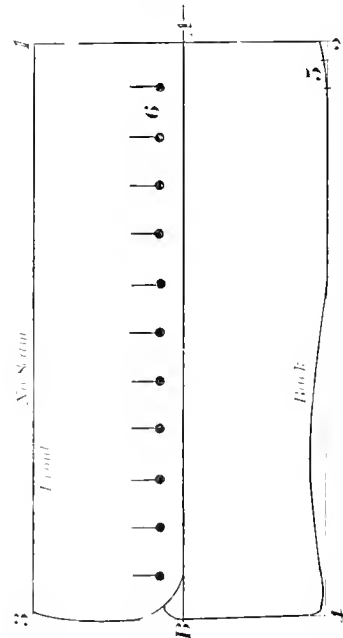
**HOW TO DRAPE.**

- Fold paper double and square across from 1 to 2.
- The width of breeches is 17 to 18 inches at the knee; the leggins must therefore be the same width from 1 to 2.
- Square down from 2 to 4.
- 2 to 4 is length of leggins, 15 inches, or whatever measure calls for.
- Square across from 4 to 3.
- Shape leggins in back as shown in diagram.
- 1 to A is whatever forepart of breeches measures at knee.
- Square down from A to B.
- Round corners on both front and back as shown in diagram at B.
- Cut forepart  $\frac{1}{2}$  inch shorter in front, as shown in diagram at 3.
- Cut pattern out on the double, then open it out on the single, and cut apart on line A B, then add  $1\frac{1}{2}$  inch button stand to back part on line A B.
- A buttonhole is made in the back seam at 5, and a

button is put on the breeches in the back of leg at J.

A small leather strap with a buttonhole in is sewed on the inside of the leggins at 6, and placed so that it will fit on to one of the buttons on the leg of the breeches. This is all the fastening needed to hold the leggins up.

A heel strap is sewed on the leggins at B; if a buckle is wanted, it should be placed on the outside.



L. of G.

## LEGGINS AND OVERGAITERS.

## DIAGRAM B.

The overgaiter is usually cut from 7 to 8 inches high, although some of them are cut as high as the knee, and also leggins used by sportsmen are cut to come 4 to 5 inches above the knee. For ordinary purposes the short gaiter is used, and therefore we only give diagram of the short gaiter, and by using the same method the long gaiter can be produced.

The following measures are used:

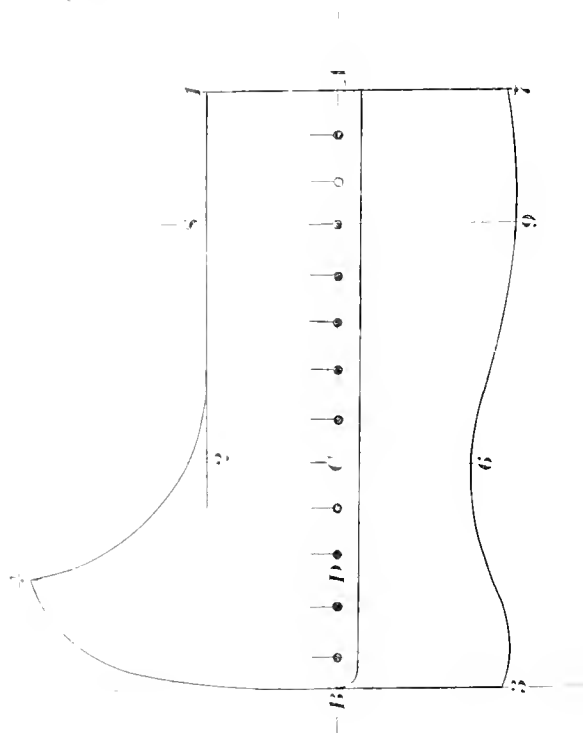
Length,	10	Leg,	12½	Calf,	13
Ankle,	10½	Instep,	15½	Bottoms,	23

## HOW TO DRAFT.

Draw straight line as from A to B.  
 Square across each way from A  
 A to B is length of gaiter.  
 B to C is 4½ inches in all sizes.  
 B to D is half way from B to C.  
 Square lines at B, C and D, also square line at most  
 prominent part of calf if cut that high.  
 C to 2 is one quarter of ankle measure.  
 Square line up from 2 to 8 and 1.  
 1 to 7 is half of measure around leg  
 8 to 9 is halfway around calf  
 2 to 6 is half of measure around ankle.  
 2 to 3 is half of instep measure, holding point 2 and  
 adding at point 3 to make up measure  
 3 to 4 is half of measure at bottom.

Shape as shown in diagram; in cutting out pattern, add one seam all around.

The buttons should be placed in the middle on line A B; therefore, in order to obtain this, add to both front and back part ¼ inch from line A B. Heel straps are sewed on at the bottom at B, the same as on the leggins.



**BROADFALLS.**

They are cut the same as any other pants, the fall bearer to be added extra.

Diagram B shows the broadfall pants, the dotted line being the forepart, the solid lines showing the fall bearer.

Five buttons is the usual amount in the fall, although some customers like four and some seven buttons.

The fall bearer must be cut high enough to make up for the waist band.

The opening in the side is usually made two-thirds of the rise of the waist, or from 7 to 8 inches.

Top pockets are put in the fall bearer, as shown in diagram. If side pockets are wanted place them in side seam, the same as on any other pants.

Diagram C Illustrating the top of the back part.

A waistband must be added to back part as from dotted lines up.

Diagram D. This shows the old-style split fall: the width of the fall is one-sixth of waist measure, and the opening is finished with a band about seven-eighths of an inch wide, and the end turned in so as to make a point as shown in diagram. A triangle of silk sewed out at the end is sometimes used. In other respects they are made like the broadfalls.

**A FEW POINTERS ABOUT MAKING.**

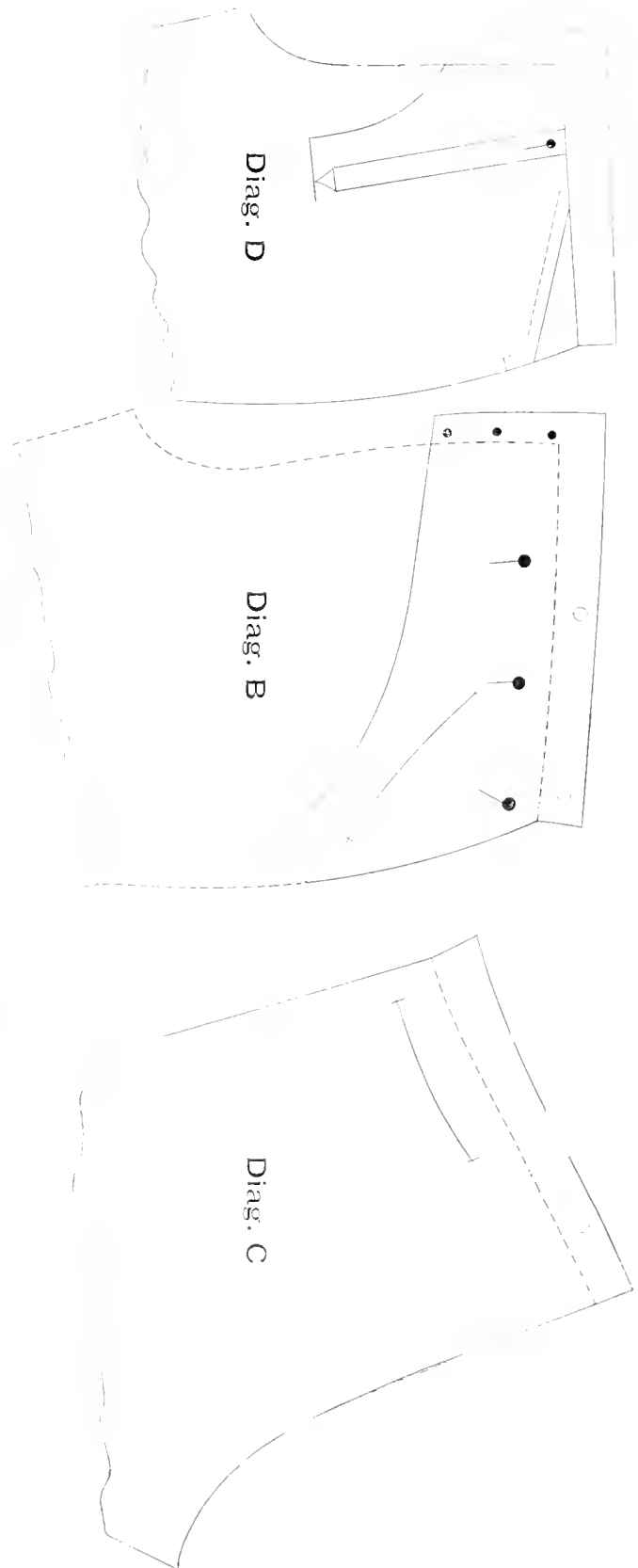
Trousers cut by this method will go together even, they are cut so as to distribute the goods equally on both sides of the center line, and whatever stretching or shrinking needed for shape must be done equally on both sides of the center line. It does not require an extra fine sewer in order to be a good pantaloon maker, but he should have some artistic skill in shaping the legs according to the shape of customer. The notches should go together even, the backpart should not be stretched on the inside from the knee up to the crotch, as this will shorten the back and produce wrinkles on the forepart when customer sits down. In joining the trousers up stretch the back seam about half of an inch in the fork so as to have them easy in the stride.

A strip of silicia cut on the bias and folded double should always be put under the turn up at the bottom, extending three-eighths of an inch above the turn up.

Sew turn up on to silicia without catching hold of the outside goods and sew top of silicia on to the goods.

This will make the trouser legs smooth at bottoms. A little soap should be put in under the turn up. Never use glue or rubber tissue in fine work, as it will spoil the turn up, and the trousers will wear out in a very short time.

Care should be taken that the hang lining is put in easy. The lining in the inside button fly must be put in on the bias. In putting in top pockets care should be taken that the facing is cut exactly like the forepart, or the pockets will gap and appear to be twisted.



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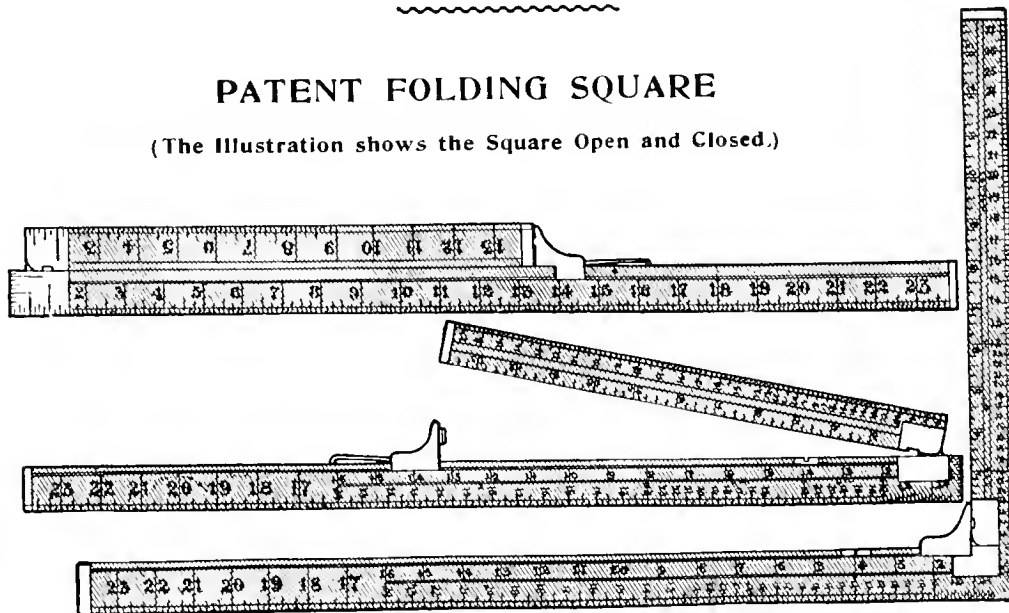


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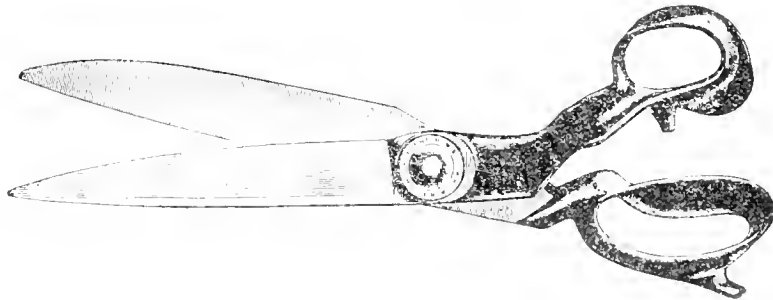
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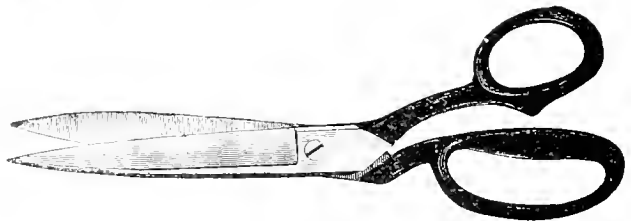
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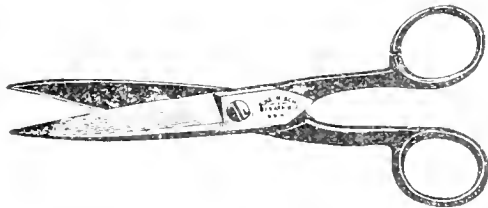
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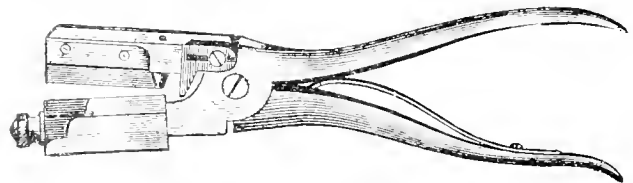
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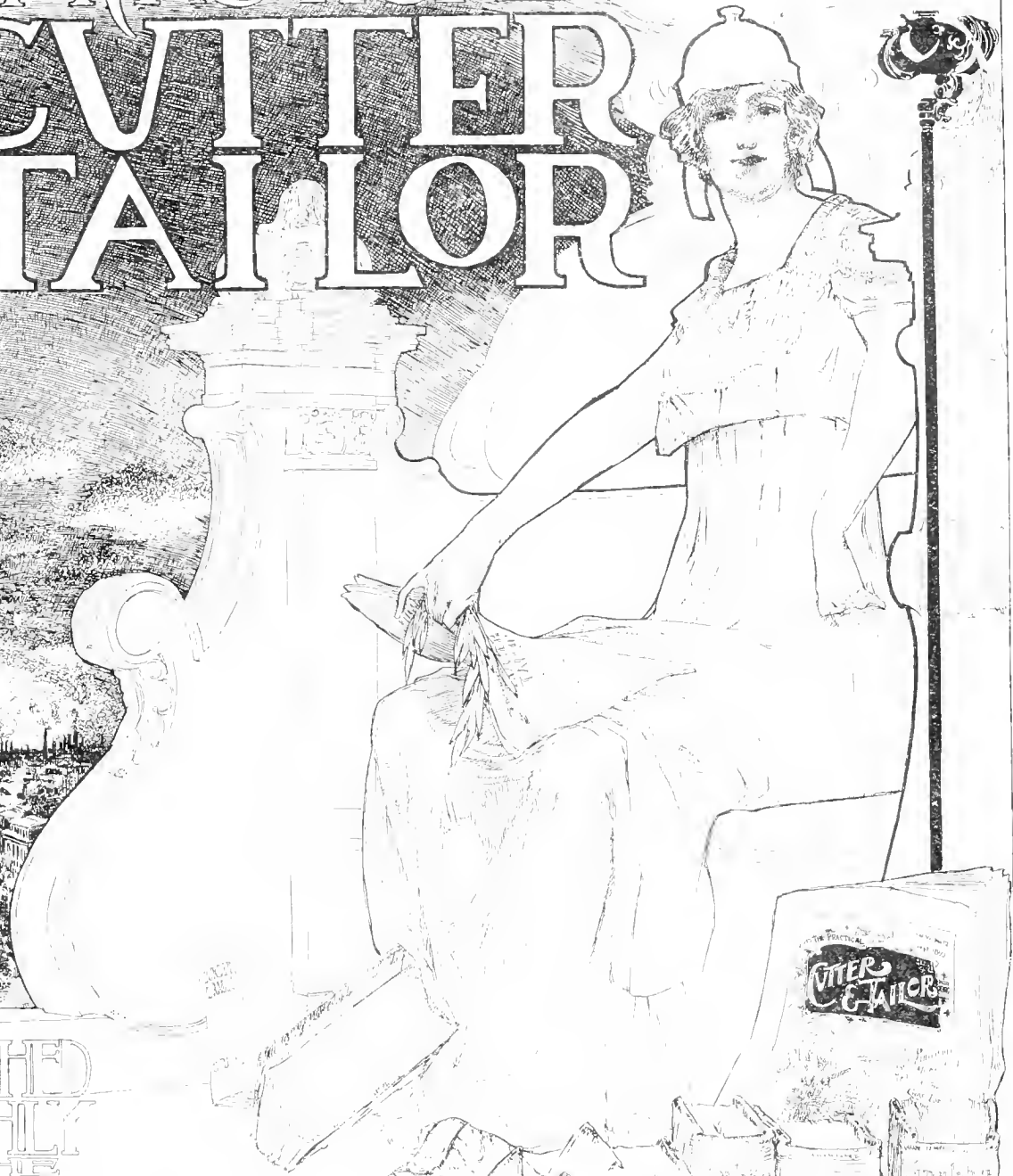
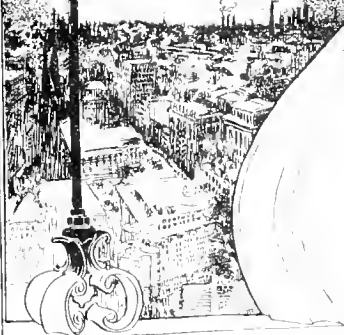
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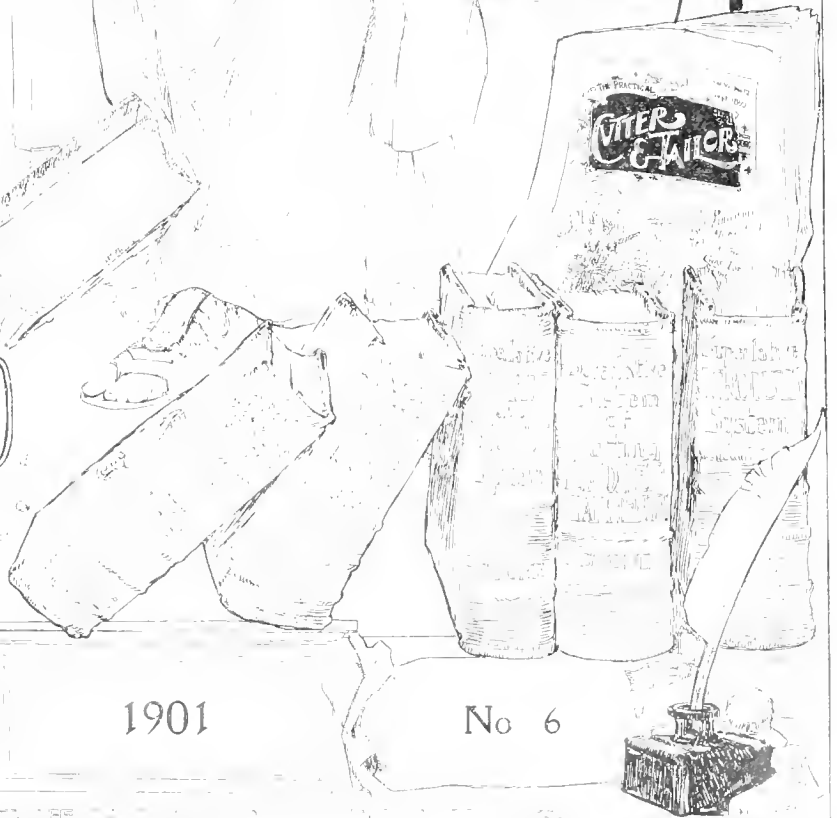
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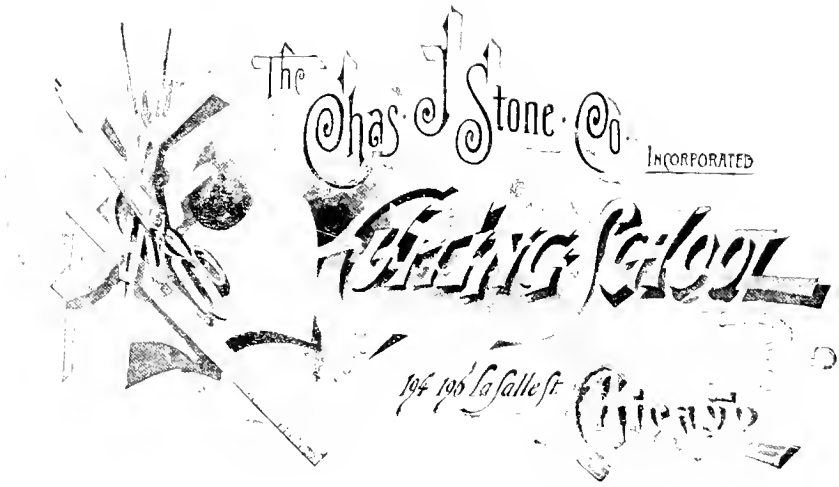


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