

Push-rods A and C pushed in.
Push-rods B and D drawn out.
Knit 4 rows on back needles.
Place in triangular wires, attach weight.
Knit 18 rows.

Divide the back needles in three parts, transfer the 11th stitch on the 12th needle at right and left-hand side, depress empty needles.

Place in heel hanger, attach weight.

At the right-hand back transfer 10 stitches from the needles on to the 2-eye heelers, depress empty needles, knit 1 row.

At the left-hand back transfer 10 stitches from the needles on to the 2-eye heelers, depress empty needles, knit 1 row.

At the right-hand side raise into action an empty needle, transfer 2 stitches from the nearest heeler, 1 on to the empty needle and one on to the end needle with a stitch.

Knit 1 row.

Transfer 2 stitches in the same manner at the left side.

Knit 1 row.

Continue in this manner until all stitches have been transferred from the heelers to the needles.

Stop with handle at right-hand side, lower the bed, take out the triangular wires.

At the left-hand side raise into action 2 empty needles on the front needle bed, 8 needles on the back needle bed, hook the side loops on to these needles. Close the bed. Knit 1 row.

At the right-hand side raise into action 2 needles on the front needle bed, and 8 needles on the back, hook the side loops on to these needles.

Close the bed, knit 1 row.

Set indicators 1 and 2 at $1\frac{1}{2}$.

Set indicators 3 and 4 at 1.

Push-rods A and B pushed in.

Push-rods C and D drawn out.

Knit 3 circular rounds.

Narrow at right and left-hand corners twice, 3 rounds between each narrowing.

Knit 80 rows for foot.

For the Toe.

Narrow right and left-hand corners 6 times, 4 rows between each narrowing.

Narrow each corner 2 rows between each narrowing until 6 needles remain.

Transfer front stitches to back needles.

Take toe off.

NOTE.—To splice the heel: A second thread of 1-ply yarn (cotton or wool) is threaded up in the yarn stand, and tied to the yarn already being used. It is thus knitted in along with the other yarn, strengthening the heel.

INSTRUCTION BOOK

FOR THE

British Built

"FOSTER" FLAT KNITTER

SIZES: 9", 18", 24" and 36"

GAUGES: $4\frac{1}{2}$, 7 and 10 needles per inch

W. & J. FOSTER, LIMITED,

88/96 MARKET STREET, PRESTON,

Lancashire, England

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Important

When Ordering Needles always send a Sample.

When Ordering Parts state always :—

1. The Number of the Machine.
2. The Number of Part required or send the worn Part.

Hosiery Shapes

To give the Hosiery a uniform shape and size, and a better appearance, it is advisable to use Hosiery Shapes. The Stocking is drawn on to the Shape for that size, a damp cloth is laid upon it, and the Stocking is pressed with a hot iron. Afterwards, the Stocking should be allowed to remain on the Shape for a few minutes.

Boy's $\frac{3}{4}$ Hose 7" to 10" ...	5/- each
Women's Hose 8 $\frac{1}{2}$ " to 10" ...	7/6 each
Men's Golf Hose 10" to 12" ...	7/6 each
Men's $\frac{1}{2}$ Hose 10" to 12" ...	5/6 each
(Rise $\frac{1}{2}$ " sizes)	

Other sizes can be quoted on special request.

The Wood from which these Shapes are made is specially prepared and dried.

Stainless Knitting Machine Oil ... 1/- per tin

Stands

A useful Stand, with table and iron legs, is supplied for the small sizes "Foster" Knitters at £6 10s. each.

"Foster" Adjustable Tubular Stand, fully fitted with Balance Lever, available for large 36-in. Machines, at £23 each.

Cast Iron or Tubular Stand with Balance Lever at £11 each.

Small Treadle Stands suitable for Finishing Machines at £12.10.0 each.

Power Stand for Finishing Machine complete with Motor and Treadle Control at £31 each.

Caution

Learners should not interfere with any of the screws, nor alter any of the parts of the machine, until they are fully acquainted with the use of the various parts.

Do not try to get on too fast; learn perfectly one thing at a time, and in the order given in the book.

The machine is sent out with a sample, and the indicators and all parts are accurately set ready for knitting.

This instruction book contains all that is necessary for the learner to know, and if carefully followed it will be found simple to understand. Do not expect to make perfect work from the first; this will only come by practice and by following carefully the instructions given, and by thoroughly grasping each point before proceeding to the next.

Get acquainted with the names and positions of all the parts, and read the instructions for fixing the machine (page 6).

Wind yarn (page 14), set up work on the machine (page 14), proceed to narrow (page 15).

Unpacking Machine

Open the lid of the case carefully. Remove all accessories which are secured to the sides of the case, also loose parts. Next remove the screws or nails from the sides of the case (from the outside) and lift out the wooden crosspiece to which the machine carriage is secured. Now remove from underneath the case, the second batten from each end, under which will be found the heads of the screws securing the machine to bottom of case. Remove these with a spanner to be found amongst the accessories. In lifting out the machine from the case do not touch the carriage. Take hold of machine near the base and not the ends of the carriage bars, to avoid bending the bars.

When the machine has been removed from the case, for 9" to 24" sizes, two feet are to be screwed to the base, one at each end, to adapt it for fitting on to a wood table. They are screwed to the machine by four hexagon head screws. The machine is then ready for securing to a wood table, and wood screws for this purpose are also provided.

Cleaning and Oiling Machine

After all parts have been assembled, clean thoroughly. Remove all grease or dirt with a clean rag. In operation the machine should be cleaned once a week. After cleaning smear all bright parts with oil to prevent rusting. "Foster" Machine Oil is specially supplied for this purpose. Oil the needle feet, grooves of the carriage bars, yarn guide bars on which yarn guides slide.

The following working parts should be oiled occasionally and slightly:

Groove bars in which the carriage runs, (Fig. 1).

Oil holes on machine.

The machine should be kept clean, but if it runs stiffly without work upon it, even when oiled with good oil, it may be due to fluff and grit from the yarn clogging it; remove the cam box and clean all parts, this need only be done at rare intervals, as a little fluff will not affect the action of the machine.

General Description of the Machine

The most important parts of the machine are the Cambox (A) [see illustration Fig. 7] which comprises the cam plates which hold the cams and other mechanism for operating the needles. The Carriage Bars (B) are for the cambox to slide in. The two Needle Beds (C) contain grooves for the needles to work in. At the tops of the needle beds will be found the Tricks, or loop formers, over which the stitches are drawn. The yarn feeders and Yarn Guide Carriers (D) feed the yarn to the needles. (E) are the Carrier Bars on which the yarn guide carriers slide. The Rack Handle (F) is for racking the back needle bed, moving it from side to side to obtain Racked Patterns etc., about which more will be said later. Machines are made to rack over three needles. The Lever (G) is for dropping the front needle bed to facilitate picking on stitches, etc. The six Tension Indicators and Thumb Screws, (H) are for controlling the stitch cams to adjust the length of stitch. The Needle Slides (I) hold the needles in their grooves. These are drawn out if it is necessary to replace a damaged needle, but care should be taken to push them back to their original position. The Yarn Stand (J) is to guide the yarn in correct form to the machine. There are various styles of yarn stands in use. The one supplied is as illustrated on front cover.

List of Accessories

(Subject to Alterations and Size of Machine)

Before starting to work, the operator should become acquainted with the various accessories and their uses. The list of accessories is subject to variation to meet changing conditions. Usually the following accessories are supplied (see fig. 2) :-

3 Set-up Combs, varying sizes No.	1	1 Two-Eye Narrower No.	10
6 Weights "	3	1 Three-Eye Narrower "	11
2 Weight Holders "	4	1 Screwdriver "	12
6 Extra Needles "	5	1 Oil Can "	13
6 Extra Needle Springs "	6	1 Spanner "	14
1 Work Hook "	7	1 Needle Slide Drawer "	15
6 Narrowing Eyes "	8	1 Pear Weight "	16
1 One-Eye Narrower "	9	Hand Winder (Fig. 13).	
		Wood Swift, and three Bobbins with each machine.	

When required, as extras we can also supply "stocking accessories," which comprise :- Triangle Wire for holding weights ; Heel Hanger, for holding weights on heel ; Two-Eye Heelers, for transferring stitches on narrowing heel ; Broad Narrower, for back narrowing.

Use of Accessories

The Set-Up Comb (1) is for setting up or commencing work on the machine (see page 14).

The Weights (3) and Weight Holders (4) are attached to the set-up comb in order to pull the work down. One weight holder is usually hooked on to each end of the set-up comb and the weights are adjusted evenly on both sides according to the fabric knitted, whether heavy or fine. The amount of weight employed has an important bearing on the quality of fabric produced.

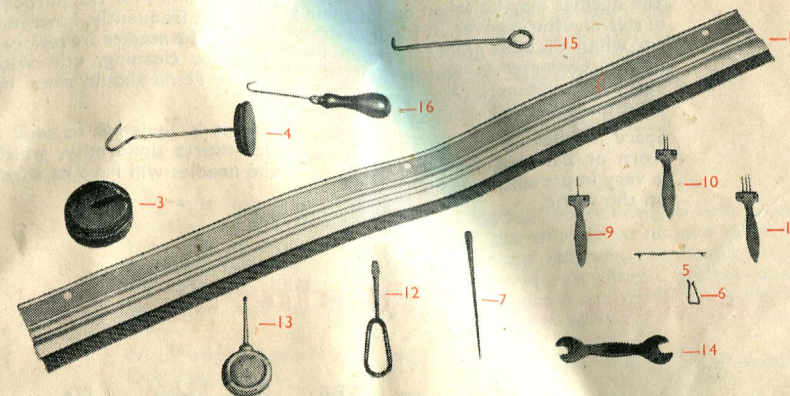


Fig. 2.

The Work Hook (7) is for picking up dropped stitches, etc. The 1, 2, and 3-Eye Narrowers (9, 10 and 11) serve for narrowing and widening the fabric, or for transferring stitches from one needle to another (see page 15).

The Pear Weight (16) is used for holding down the corners of the work when required.

Description of the Needles

The needles are very important components of the machine, and a short description of them and their functions will be useful.

The needle comprises a hook, latch, stem, foot, and heel. The foot works on the cams, which lift and depress the needle for making and clearing stitches. When the needle holding a stitch is raised the latch is opened automatically by the stitch, which passes below the latch. The hook then engages a thread for a new loop. When the needle is drawn down it draws the new loop through the old one. The old loop, in passing along the stem of the needle, closes the latch, which enables the new loop to be drawn through.

The heel of the needle is merely to help to steady it in its action, and is also to rest on the needle springs.

The needle springs are arranged at the bottom of the needle beds, and their purpose is to keep the needles pushed up in the grooves in operative position. To put a needle out of action it is pressed down towards the bottom of the bed, by its foot. Care should be taken that needles are pushed down far enough to take the feet below the cams, and when raising the needles that the needle springs are pressed up as far as they will go. Failure to do this may cause the needle feet to strike against the corners of the cams with damaging results to the needles, needle beds, and cams.

At the bottom of the front needle bed and above the needle springs will be found a bar on which the number of the needles in the bed is indicated at points starting from the centre and extending to the left and right. If 20 needles on each bed are to be used, then 10 on each side of the figure 0 should be pushed up.

The needles may be taken out of their grooves at times for the purpose of cleaning the grooves. It is not desirable to do this frequently, however, and when it is done *great care* should be taken that the *needles are replaced in the same grooves* which they occupied before cleaning, otherwise trouble may occur. Also note, that *Paraffin* or *Petrol* should *never* be used on the needles or needle grooves.

Spare needles can be obtained from us, and it is advisable to send a worn or damaged needle as a sample. It ensures uniformity, which is very important, as a slight variation in the needles will have its effect on the fabric.

Needles and Needle Springs

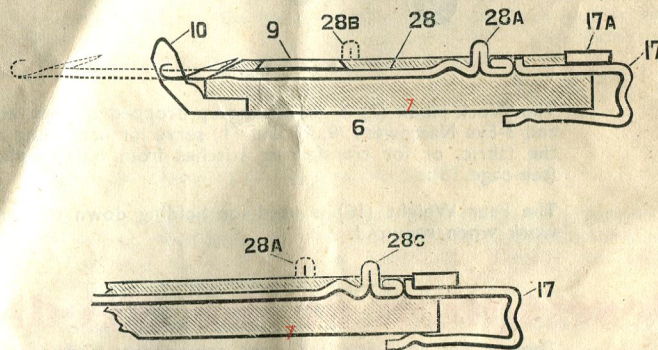


Fig. 3

(Fig. 3) shows an end section of the needle bed.

No. 6 is the needle bed. No. 28 is the needle. No. 9 is the needle slide.

No. 17a is the needle spring bar which holds the needle springs in their places. This bar at the front of machine is numbered as follows: 20, 15, 10, 5, 0, 5, 10, 15, 20, etc.

The figure 0 represents the centre of the needle bed, and the figures each side are marked opposite every fifth needle. Thus if 20 needles are to be used on each side of the machine, 10 each side of 0 should be pushed up by the side of the machine, 10 each side of 0 should be pushed up by the needle springs. This would be 20 in all, and they would be in the centre of the needle bed which is the correct position to have them at the commencement of stockings, socks, and most articles.

No. 28a shows the needle in its working position, as pushed up by the needle spring.

No. 28b shows the needle at its highest position when at the top of cam E (Fig. 7).

No. 28c shows the position of the needle and spring when out of action.

Care should be taken not to leave the springs at a half-way position, that is between 28c and 28a, as the needles will be in danger of catching the corners of the cams A and C (Fig. 10).

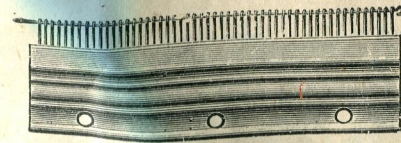


Fig. 4.

(Fig. 4) is the set-up, which is always used in commencing to knit. After knitting the first row across on both sets of needles, remove the wire from the set-up and press the comb up between the needle beds, re-insert the wire, and draw down set-up, attaching a weight stand and weights. Sufficient weights to draw down the work only must be used, too much weight makes the machine heavy.

No. 7 is the needle bed. No. 28 is the needle. No. 9 is the needle slide (Fig. 3).

No. 17 is the needle spring which holds the needle in its working position. The needles must always be pushed into action by the needle springs and not by the needles themselves.

Too much weight on the fabric may break the stitches if fine yarns are being worked, too little weight will cause the work to rise up on the needles which will not form their stitches properly. With a little practice the learner will be able to correctly gauge the necessary amount of weight for the various yarns and stitches. Always use the same amount of weight in knitting several of an article, otherwise they may vary in length by the stitches being more or less drawn.

The work hook is used for lifting the stitches which may have accidentally left their needle, and for picking the stitches of rib-tops on to the needles for knitting stockings. Practice with this article enables the operator to turn out good work quickly.



Fig. 5

(Fig. 5) shows a 3-eye narrower, used in narrowing the instep and toe, also in narrowing and widening most articles, a 1-eye narrower also is supplied.



Fig. 6.

(Fig. 6), Pear weights are used to assist the weights at the corners, or at any part which requires a little extra weight.

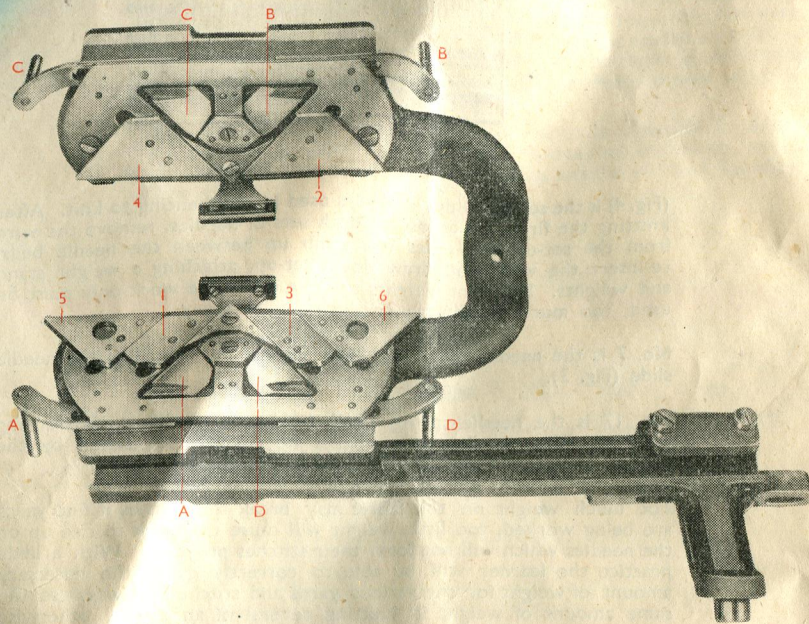


Fig. 7

The Cams

The Cams are very important parts which operate the needles. We give a description of these parts and an illustration, (Fig. 7).

The Centre or Raising Cams, A, B, C, and D, are operated by the push rods on the cam boxes, marked A, B, C, and D. When the push rods are all drawn out, away from the centre, the raising cams are down, in position to engage the needle feet and raise the needles. When the push rods are all pushed in towards the centre, the raising cams are drawn back into the cam box and are out of action. (This is the position in which to leave them when ceasing work for the day).

The Side or Wing Cams, 1, 2, 3 and 4, are the draw down cams, which determine the length of stitch. They are adjusted by the indicators (H) (Fig. 1), on the top of the cam box, which are also numbered 1, 2, 3 and 4, to correspond with the cams. The lower the indicator is set the longer or looser is the stitch.

With push rods A, B, C, and D, pushed out, the machine Knits Rib.
 " " " " A and B " in and C and D out, the machine Knits Circular.

It will be seen that Circular or Tubular work can be knitted, and by setting the cams, as last described above, the machine knits alternatively on the back and then on the front, thus making a tubular web. The Cams A and B are out of action, thus the needles on the front do not operate when the back needles are knitting and vice versa.

Auxiliary Cams

Comprise 2 additional wing cams on the front cam box, controlled by 2 extra indicators, Nos. 5 and 6. They assist in knitting a very tight 1 and 1 rib-stitch. The correct way to set indicators 5 and 6 is to have indicators 1 and 3 two spots higher than 5 and 6. This obviates a long drawing off of yarn from the yarn guide and facilitates tight knitting.

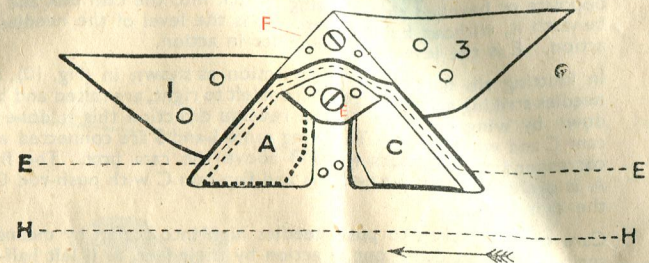


Fig. 8

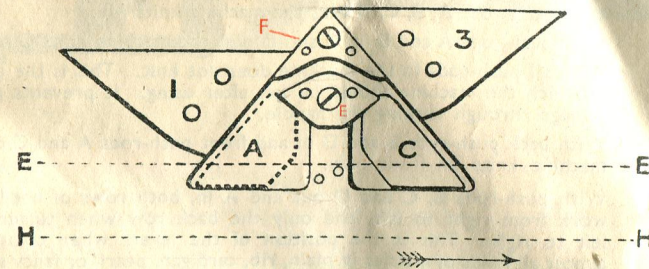


Fig. 9

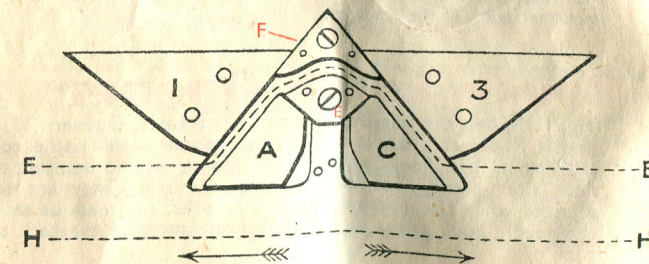


Fig. 10

(Figs. 8, 9, and 10), the centre or raising cams A, B, C, D, are operated by push-rods A, B, C, D, on the cam boxes. When the push-rods are drawn out away from the centre the raising cams are down in position to engage the needle butts and raise the needles. When the push-rods are pushed in towards the centre the raising cams are drawn back into the cam box out of action.

The side or wing cams 1, 2, 3, 4 are the draw down cams which determine the length of stitch according to the setting of the indicators 1, 2, 3, 4 on the cam boxes; the lower the indicator is set the longer or looser the stitch.

(Fig. 8) shows the action of the needles in moving from right to left when the cams are set for circular stitch.

(Fig. 9) shows the action of the needles in moving from left to right when the cams are set for circular stitch.

It will be seen in (Fig. 8) that the needle feet first touch flap cam C., and are raised by this cam being brought down to their former level by wing cam I. In (Fig. 9) the needle feet first touch flap cam C on its opposite or bevelled side pressing it back into the cam box and passing beneath it, without being raised. H is the level of the needles out of action. E is the level of the needles in action.

In knitting rib flap cam A is in action as shown in (Fig. 10), and the needles striking against it, going from left to right, are raised and brought down by wing cam 3, as in the reverse direction this is done by flap cam C and wing cam I. The wing cams I and 3 are connected with the corresponding indicators I and 3 above the cam box. The flap cam A is connected with push-rod A and flap cam C with push-rod C above the cam box.

Care must be taken to push needles high into action by means of the springs, or right down out of action by their feet, as if left half-way up they might catch the corners of the flap cams A, B, C, D, and damage the cams or needles.

With push-rods A, B, C, D out, the machine knits Rib.

With push-rods A and B in, C and D out, the machine knits Circular.

With all push-rods in the machine does not knit. This is the position in which the machine should be left after using. It prevents possible damage through turning the handle.

With back push-rods B and D in and front push-rods A and C out, the machine knits on front only.

With push-rods B, C and D out and A in, both rows of needles will work from right to left, and only the back row when turning from left to right. This is the position of the levers when commencing almost all kinds of articles in plain, rib, cardigan, pearl, or fancy stitches.

Learners should make themselves familiar with the positions of the above push-rods, which are constantly referred to throughout this book, and are important parts of the machine.

The Brush Latch Opener

(Fig. 11) shows the relative position of the Latch Opener (13) to the needle, its object is to open and to keep open the needle latches to receive the yarn in their hooks, otherwise the latches would be liable to swing close after passing over the completed stitch. They are correctly adjusted when the machines leave our works, and must be set so that the needle hook passes through the brush more to the back than the front of it.

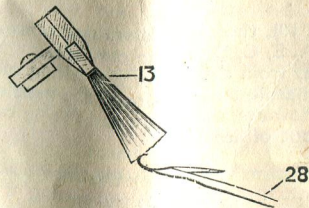


Fig. 11

Overhead Tension Stand

(see Fig. 1).

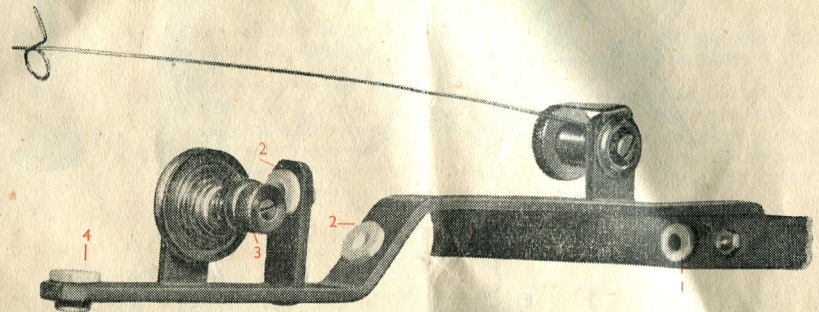


Fig. 12

Yarn Stand Tension Spring (Fig. 12).

The yarn stand is the overhead goalpost type and has three tension arms as per illustration. For threading up the machine place the bobbin directly below eyelet (No. 1), thread the yarn through this eyelet (No. 1), through eyelets (No. 2), between the tension discs, underneath the disc stud (No. 3), through the hole in the tension wire and through eyelet (No. 4). The discs should have just sufficient tension to hold the tension wire down when the yarn is held between the finger and thumb and drawn down. The tension wire will then take up the slack yarn at each end of a knitted row, and ensure a good selvedge down the side.

The Indicators

The object of the six Indicators, Nos. 1, 2, 3, 4, 5 and 6 (Fig. 1, H), is to determine the stitch, and are alterable according to the thickness of the yarn used and the stitch to be knitted, the lower the indicator and the looser the stitch. The indicators are moved by loosening the thumb nuts, and after being set to the required numbers the thumb nuts are screwed tight. The stop plates are used to keep the indicator at a required number in certain stitches where it is not desirable to have the thumb nuts screwed tight. These are adjustable by means of a screw.

How to wind the yarn

Care should be taken in winding the yarn, or the machine will not work free and easily.

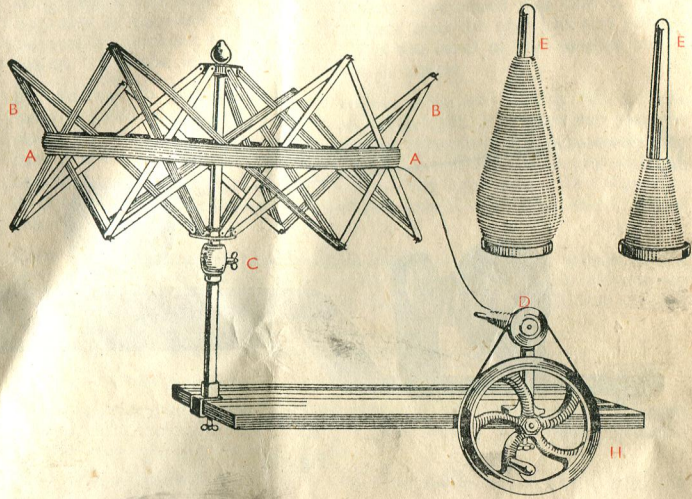


Fig. 13

Fix the winder and swift on to a table in the manner shown (Fig. 13), and the bobbin on to the winder spindle (D), take the hank of yarn (A) and place it over the swift (B), raise somewhat the barrel (C) so that the yarn will not fall off the swift, but not to bind the yarn tightly. Now piece the yarn to the bobbin (D) and with the right hand turn the wheel (H), and with the left hand guide the yarn. Wind first the lower end of the bobbin cone shaped, and gradually fill it towards the top, taking care to keep the cone shape throughout, so that the upper part of the bobbin may never have more yarn upon it than the lower part (see Fig. 13, E). Do not wind the yarn too tightly upon the bobbin, nor yet too loosely. Hard and course yarns will work easier if, in winding, a way ring be held in the left hand, and the yarn allowed to pass through it to the bobbin. The weaver's knot (Fig. 14) is the best knot to use for piecing the yarn. Large knots should be avoided.



Fig. 14

How to set up work on machine

(10 Needle Gauge)

Having filled the bobbin with $2/32$'s wool, place it on the bobbin stand, which should be set on the table behind the machine.

Have push-rods A, B, C, and D out.

Set indicators Nos. 1, 2, 3 and 4, to point to No. 10, 5 and 6 at No. 8.

Push up into action from the centre of the bed the number of needles required on the front side and one more needle on the back side, and at the back, those opposite the front, and each back end needle will be just beyond the two end needles on the front.

The needles must be pushed up by their springs (Fig. 3). See that the remaining needles are down out of action.

Move the handle slowly to see if there is any obstruction.

Move handle to the right-hand side ready to cast-on.

Thread the yarn through hole in the bobbin stand (J) (Fig. 1), through holes (15A) and (15B) in tension bracket (Fig. 12), then through the yarn feeder (16), using the tension spring (25) (Fig. 4B), let a short length of yarn hang down from below the yarn guide (16).

Move the handle slowly to the left-hand side.

It will be observed that the needles both back and front have now taken hold of the yarn.

If any needle has failed to catch the yarn through its latch being closed, with the work hook put the yarn into the hook of the needle.

Now insert the set-up comb (I) (Fig. 4); first take out the wire; hold set-up comb in left-hand underneath the machine, then push the set-up comb gently up between the two needle beds, the teeth of the comb will pass upwards between the tricks and through the yarn on the needles, when quite through insert the wire with the right-hand and lower the comb gently until it rests upon the yarn in the needles.

Attach to the set-up comb the weight stands with one weight on each stand.

Push in push-rods A and B.

Move the handle to the right, then to the left, and repeat.

Pull out push-rods A and B and the machine is set up. The set-up and selvedge operation is now complete.

The handle can be moved to and fro, which will cause the needles to operate, producing plain circular knitting.

It is best to repeat the above a few times until familiar with the movements and changes for setting up.

To take the work out of the machine, break the yarn, remove the weight holders, hold the set-up comb with the left hand, move the handle slowly, and the work will leave the needles.

Be careful in moving the handle when there is no work in the machine, move it slowly, taking care of the needle latches.

The above manner of setting up is the same for ribbed, cardigan and half cardigan stitches, with a few changes of tension and cam levers after the set-up comb is attached, this will be explained further on (pages 19-20).

7 needle gauge—same except for indicators, these being 13 and 11 respectively
4½ " " " " " " " " " " 15 " 13 "

Narrowing

Explanation of Narrowing Definitions

2 over 2 means two stitches transferred from 2 needles on to the next 2 needles. The now empty needles are depressed out of action.

2 over 1 means two stitches are transferred one position inward so that 1 stitch goes on to the 3rd needle from the end and the other stitch goes on to the 2nd needle. Depress the now empty needles.

4 times - 2 rows between means that the narrowing operation is carried out 4 times with 2 rows knitted between each operation

Narrowing (a)—1/1 Rib

First Method.

This means reducing the size of the article while being knitted.

It is done as in hand knitting. For example, taking with the one-eye narrower (9) (Fig. 2), the stitch off each corner needle in action, and placing it on to the next needle, which will now contain two stitches, the four corner needles will have none and must, therefore, be pulled down out of action to prevent them knitting again, the work is now narrower by four stitches. Knit five rounds and repeat the above operation with the four corner needles, always pulling them down when empty. By constantly repeating the above with five rounds between each operation of narrowing, the work will be tapered to a point and the principle of narrowing learnt.

Always pull down the empty needles after narrowing.

Repeat the whole of the above a few times, commencing at the beginning.

Narrowing (b)—1/1 Rib

Second Method, suitable for Hosiery.

This is a better and more advanced method of narrowing than the simple method mentioned above.

Use narrower with 3 eyelets (11), (Fig. 2) and (Fig. 5).

Set up and knit 10 rounds, finishing with the handle at the left-hand side.

With the work hook open the latches of the four needles at the right-hand back corner. Hold the narrowing comb something in the style of holding a pen, and hook the eyelets of the narrowing comb on to the hooks of the three corner needles at the right-hand back corner. Hold the comb on the slant at the same angle as the needles, draw the comb upwards as far as it will go, and with it the three needles, until their stitches have slipped below the latches; still holding the comb at the same angle as the needles, push the three needles down again (the three eyelets still in the hooks of the three needles) until the latches have closed, push further down until the three stitches have passed over the latches and hooks of the needles, and are resting on the points of the narrowing comb; next, lift the comb off the needles, care being taken not to permit the stitches slipping off the points of the comb; having lifted it about a quarter of an inch above the needles, move the comb one needle nearer towards the centre of the bed, then hook the eyelets of the narrowing comb on the 2nd, 3rd and 4th needles from the corner; with the comb draw the needles upwards about a quarter of an inch, the stitches will slide down the eyelets and rest against the hooks of the needles; then slowly tilt the comb and the stitches will slip from the narrowing comb on to the needles. The corner needle, which is empty, must be drawn down out of action.

The 4th needle from the corner will contain two stitches.

Repeat the above at right-hand front corner (not forgetting to pull down the empty needle), move the handle to the right, and repeat the same, first at the left-hand back corner and then at the left-hand front corner.

Knit 5 rounds, leaving handle at left, and repeat the narrowing.

The needles in action will gradually decrease and the knitting become tapered to a point, as described before, but the narrowings will present a nicer appearance.

Narrowings, 1st Style—2/2 Rib

The strokes represent needles in action, and the dots, needles down out of action.



Handle at left.

At right-hand back, hook stitch *q* on to needle *r*, and stitch *o* on to needle *p* which must be pushed up; pull down the empty needles *q* and *o*.

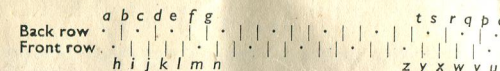
At front push up empty needle *w*; transfer stitches *v* and *u* over one needle, that is stitch *v* will be on needle *w* and stitch *u* on needle *v*; pull down the empty needle *u*.

Turn handle to right.

At left-hand back hook stitch *c* on to needle *d*, and stitch *a* on to needle *b*, which must be pushed up into action; pull down the empty needles *c* and *a*.

At front push up empty needle *j*, transfer stitches *h* and *i* over one needle, that is *i* will be on needle *j*, and *h* on needle *i*. Pull down empty needle *h*.

The needles will now be as follows:



Knit 5 rows (which with the row during the narrowing makes 6 rows).

Handle to left.

Lift stitch *r* on to needle *x* at front; pull down the empty needle *r*.

Turn handle to right.

Lift stitch *d* on to needle *j* at front; pull down the empty needle *d*.

Knit 5 rows.

The needles will now be as follows:



Handle at left.

Lift stitch *p* on to needle *q*; which must be pushed up. Pull down empty needle *p*.

Transfer stitches *x*, *w* and *v* over one needle; Pull down empty needle *v*.

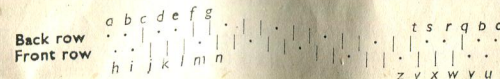
Turn handle to right.

Lift stitch *b* on to needle *c*; which must be pushed up. Pull down empty needle *b*.

Transfer stitches *i*, *j* and *k* over one needle; pull down empty needle *i*.

Knit 5 rows.

The needles will then be as follows:



Handle at left.

Lift stitch *q* on to needle *r*; which must be pushed up. Pull down empty needle *q*.

Transfer stitches *w* and *x* over one needle; pull down empty needle *w*.

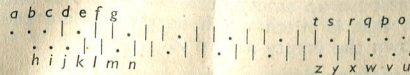
Turn handle to right.

Lift stitch *c* on to needle *d*; which must be pushed up. Pull down empty needle *c*.

Transfer stitches *j* and *k* over one needle; pull down empty needle *j*.

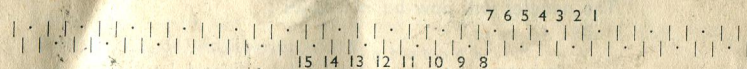
Knit 5 rows.

The needles will now be in the same position as before commencing the set of narrowings.



The above is repeated until sufficient narrowings have been done; then the remainder of the stocking is made the same as the 1 and 1 rib stockings.

Narrowings, 2nd Style (quickest way) 2/2 Rib



Handle at left.

Transfer stitches 4 and 3 on to needles 6 and 7, and stitch 1 on to needle 4; pull down the empty needles.

Transfer stitches 11 and 12 on to needles 14 and 15, and stitches 8 and 9 on to needles 11 and 12; pull down the empty needles.

Turn handle to right, and repeat the same operation at the left.

Knit 20 rows and repeat the narrowings the number of times required.

How to widen (a)

Push up into action at back and front, at the corner to be widened, an extra needle; with the three-eye narrowing comb transfer the 3 corner stitches one needle towards the end of the bed, placing the first stitch on the empty needle pushed up, the fourth needle will be empty; on to this place with the work-hook the last but one stitch made by the third needle.

How to widen (b)

With the handle at left side push up 1 needle on rear bed at left corner and 1 needle on front bed at right corner, move handle to right side and push up 1 needle on rear bed at right corner and 1 needle on front bed at left corner.

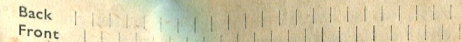
This will make the fabric wider and should be done when pattern states "widen."

To widen Cardigan stitch

As in case of narrowing cardigan stitch, but the 3 corner needles must be first pushed up about a quarter of an inch to permit the latches opening, so that the eyelets of the narrowing comb can be hooked on to the needles as explained for narrowing cardigan stitch.

To Knit 1 and 1 Rib

Set the needles as follows:



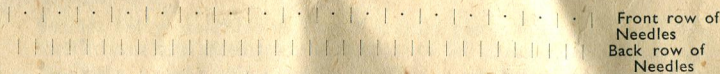
It will be noticed that the back needles overlap or extend beyond the front ones at each side.

All push-rods drawn out; indicators 1, 2, 3 and 4 at about 10, 5 and 6 at 8—Set up as usual.

To Knit 2 and 1 Rib

Commence the same as for 1 and 1 rib, and after having knitted two rows of rib, transfer (at the back only) with a single-eyelet narrowing comb the second stitch from the right-hand back corner on to the third needle, then the fourth stitch on to the fifth needle, the sixth on to the seventh needle; continue in this manner, transferring every alternate stitch on to the next needle, until the left-hand corner is reached; pull down all the empty needles.

The front needles remain untouched. The needles will be arranged thus:

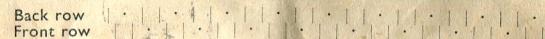


The strokes represent needles in action, and the dots needles down out of action.

To Knit 2 and 2 Rib

Have rack handle up in normal position.

Arrange the needles as follows:



Strokes indicate needles up, dots indicate needles down or out of action.

Push-rods A, B, C, and D all out.

Move slowly to and fro.

Move handle to right.

Thread up.

Press racking handle down one position.

Move handle to left.

Attach set-up comb, weight-holders and weights, then push-rods A and B are pushed in.

Knit two circular rounds.

Pull out push-rods A and B.

Knit one row of rib.

Raise rack handle to normal.

Proceed to knit the required number of rows.

Note.—The needles must be set according to preceding diagram, the racking handle properly moved when the needles are not working; if the racking handle is not raised again before proceeding to knit the rib, the work will be spoiled, as it will leave the machine a loose inferior 1 and 1 rib.

To Knit Cardigan stitch

Have the rack handle up.

Push up an equal number of needles on each side of the machine by their springs, the end needle at the right-hand back corner and the end needle at the left-hand front corner being the extreme outside ones, as shown by the following :



If not set as above, the corner needles will drop their stitches continually.

Have the push-rods A, B, C and D out.

Put indicators 1 and 2 at about 12-13, and 3 and 4 at 4, 5 at 0, 6 at 10.

Proceed as usual. After knitting the usual circular row, pull out push-rods A and B. The push-rods will then be set as for rib (all out).

7 needle gauge tensions, 15 for indicators 1 and 2
4½ " " " " 16 " " "

To Knit Pearl or half Cardigan

Follow the same procedure as for Cardigan with the exception that Indicators 1, 2 and 3 are set at No. 12, 4 only at No. 4, and No. 5 and 6 at 9-10.

7 needle gauge tension 13, 4 and 10 respectively.
4½ " " " " 15, 4 " 12 "

To narrow Cardigan stitch

The manner of narrowing cardigan work is slightly different from the method employed in plain and rib.

The three-eye narrowing comb is used.

The needles on one side of the machine alternately contain two loops on each needle, viz., one inside the hook and one outside over the latch, keeping it closed ; to narrow this side push the three corner needles up about a quarter of an inch, which will open the latches in order that the eyelets can be hooked on to the needles ; pull down the fourth needle until the stitch on the latch has slipped over the hook and thus left the latch free to open. Proceed to narrow in the ordinary manner.

How to divide

Place right-hand push-rod on the front in. Knit 1 row, draw wool down between needle beds. Pull push-rod out. Knit 1 row. Knit 2 circular rows (after piece has been completed). Cut opposite to wool drawn down, pull out length of wool, pull out second length of wool.

How to make an invisible Seam

The good appearance of garments which are worked in pieces depends largely on the neatness of the seam. The following seam is quite easy with a little practice :

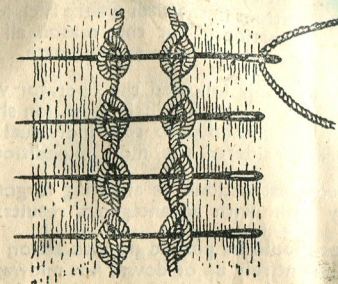


Fig. 15

Thread a wool sewing needle with wool to match garment ; use the wool double.

On the selvedge a little back stitch will be found at the end of every alternate row of knitting, as diagram shows.

Hold the two edges to be joined together wrong side uppermost and insert needle first under the little back stitch on right-hand piece of knitting and then under the little back stitch on left-hand piece ; draw needle and wool through the stitches fairly tight, but not too tight, as it

must be kept elastic ; if there are any contrasting stripes match them carefully first.

Besides being useful for making of knitted pieces into garments, these instructions are particularly advantageous for those owning small size machines, as garments can still be made in several pieces and joined together by the means enumerated.

Oversewing

When a piece of fabric is taken from the machine the last row knit will be a raw edge and liable to run if not fastened. This can be obviated by catching up the stitches with a darning needle threaded with the same yarn as that from which the fabric is made.

How to make an elastic stitch

Press with a hot iron and damp cloth, unravel one or two rows, commence by sewing the first two stitches firmly together, take half of the stitch already sewn and the next stitch, continue in this way for the number of stitches to be elastic stitched.

Grafting

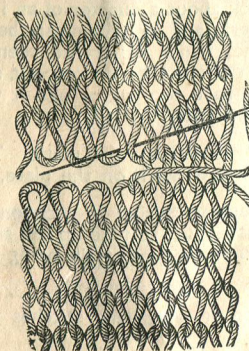


Fig. 16

This is useful for joining together two pieces of knitted fabric and especially for heels and toes of hosiery.

The sewing together can be made invisible by going through the stitches in the manner shown by the illustration (Fig. 16).

Notes

Yarns vary in thickness, softness, and bulk, each of which causes difference in length, width, and tension, therefore it is impossible to give fixed sizes and tensions to be accurate for all yarns, and it is advisable to keep a memorandum of all the articles made, giving yarn used, tensions, rounds knitted, etc., making alterations in the sizes where such is seen to be an improvement in the proportions. For this reason all tension numbers stated in this book must be taken as approximate.

If the instructions have been carefully followed the operator will now have a knowledge of the machine, and with a little attention should be able to make alterations in the methods to suit individual tastes; nevertheless, those given are considered the most expeditious.

Read the opening remarks and instructions, as anything forgotten will be brought to the memory again with advantageous results.

Don't forget that the needles should be pushed up into action by their springs, and that they must be entirely up or down, not midway, which causes bumping of the carriage, broken needles, and at times the corners of the centre cams are chipped, which will in turn cause broken needles.

Large knots cause breakages and holes in the fabric, therefore it is advisable to look out for them; and as they are about to enter the hook of the needle, draw them through with the work-hook (see Fig. 14 for making weaver's knot). Should the yarn break from any cause, and any of the stitches have left their needles, stop machine immediately, re-thread the yarn through the yarn-guide, turn the handle to the end of needle-bed, take off the weights, open the beds, carefully raise with left hand the portion where the stitches are dropped, hook them on to their needles again, then take hold of the broken end, and by proper manipulation the stitches can be unravelled (best done with beds closed) by taking hold the yarn, drawing it somewhat tight, then forcing the previous row of stitches made, back on to the hooks of the needles again; in this manner unravel until the defect is obliterated, then rejoin the yarn and proceed with the knitting, not omitting to knit extra the number of rounds unravelled.

Should matters become so entangled that all hope of straightening is lost, run the work from the machine, re-wind the yarn from the piece, and commence again. No doubt, this will occur a few times until experience teaches how to avoid same.

On no account force the handle to move when there is a decided stop; examine and remove the obstruction, it is generally a needle not properly up or down. Should the machine stick while knitting a tight round, and the cause be known to be such, and that it will be all right after this round is knitted, then take the handle back about a quarter of an inch and bring it forward again with a slight jerk, and by such means being continued the round of knitting is done, which otherwise seemed impossible, and which might have caused the work to be run out and recommenced. Don't move the handle back too far, or else it will cause some of the needles to lose their stitches.

Be sure that the Indicator always points exactly on the mark. The indicator is tight when pointing to the highest mark on the plate.

Rows are sometimes called courses. Tension Spring is occasionally mentioned as Take-up, and should be adjusted just to take up the slack and no more, so as to prevent any undue tension or strain being put on the yarn while knitting.

Never try and knit any yarn at a tension at which the stitches will not leave the needles with ease.

Harsh yarns are greatly improved by letting them run through a wax ring when winding. This specially applies to some cotton yarns.

Never use more weight than is absolutely required.

Marks in the fabric are usually caused by stiff or bent needle latches.

Should the latch of the needle become bent, imperfect stitches are formed; take the needle from the machine, lay it sideways on a level piece of iron, and with a very small hammer, or by pressing the latch with a screwdriver, it can often be straightened. It should open and close freely, this is often accomplished by manipulating the latch between finger and thumb. Sometimes a bent latch can be straightened with the thumb and finger.

Badly worn or rough bobbins interfere with the regular working of the machine.

Keep the machine clean. Do not use a thick sticky oil. We supply a specially prepared oil.

When new parts are wanted always send the broken piece if possible; this will ensure the new one fitting. In the case of cams, etc., which may be broken or worn, but still workable and cannot be spared, send an outline on paper, that is to say, lay the part on paper, and with a penknife go round the edges, scratching the exact size, and in respect to the side (stitch) cams with a needle prick the position of the holes.

Always send an old needle, needle-spring, eyelet of narrowing combs, for patterns. Always give the size, gauge, and number of your machine. Always keep a good point on the work-hook.

Read through the instructions with care before commencing, and when knitting it is advantageous to read a few lines ahead.

In narrowing or hooking do not stretch the stitches more than is necessary.

Slipping of stitches is usually caused through incorrect yarn guide adjustment. The yarn feeder (D) (Fig. 1), should be set just high enough to clear without touching the needles. It can be raised and lowered by means of the vertical slot. If too high and too far away from the needles, slipped stitches will result. The yarn guide should also run exactly in the centre of the two rows of tricks at the top of needle bed. If through being bent it should run out of centre it will probably miss feeding needles on one side.

Other causes of slipped stitches are: The friction block (26) (Fig. 1), is flying ahead of the needles, through losing its grip on the friction bar, possibly due to worn spring or buffer (26A) (Fig. 1). The tension spring (25) (Fig. 1), is not drawing up the loose yarn at the sides. This may cause the end needles to slip stitches.

Always alter the cam slides when the carriage is at the end of the needle bed, and never when the carriage is over the needles. An exception to this rule is when an obstruction occurs, and it is necessary to push in the cam slides to take out of action the raising cams, so as to be able to move the carriage to the end.

Diagram showing how to measure correctly

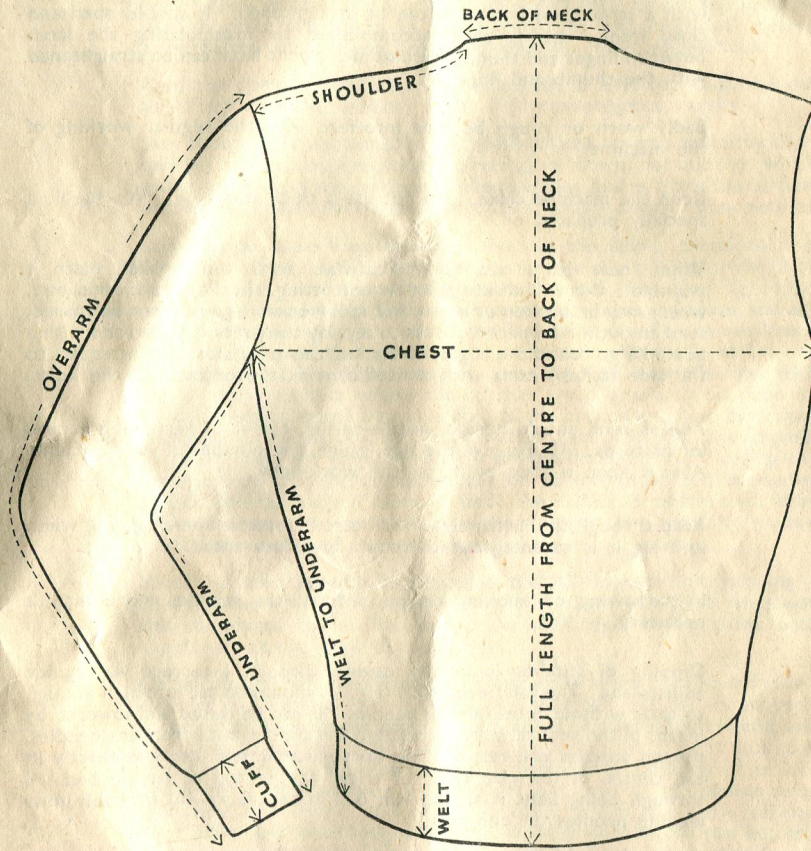


Fig. 17

Guide to Garment sizes

SIZES	Length	Chest	Long Sleeves Under arm	Width All Round	Short Sleeves Under arm
24" Jersey	15"	24"	9"	...	...
26" Jersey	16"	26"	11 1/2"	...	...
24" Knickers	12"	...	...	11"	...
26" Knickers	12 1/2"	...	...	11 1/2"	...
24" Cardigan	15"	24"	9"	...	...
Ladies' Cardigan	21"	34"-36"	18"	...	...
O.S. Cardigan	22"	38"-40"	19"	...	...
Ladies' Jumper	20"	34"-36"	...	...	5"
O.S. Jumper	21"	38"-40"	...	...	6"
Men's Cardigan	24"	36"	19"	...	...
O.S. Cardigan	25"	40"	20"	...	...
Men's Pullover	23"	36"	19"	...	...
O.S. Pullover	24"	40"	19"	...	...

Guide to Hosiery sizes

SIZES OF PLAIN STOCKINGS AND SOCKS for Machines, 7 Needles per Inch in 3-ply Fingering or 17's 3-fold Wool, and 12's 3-fold or 14's 3-fold Cotton.

SIZES	No. of Needles		No. of Rows for Calf without Rib-Tops	No. of Rows for Top	No. of Rows for Calf	No. of Double Narrowings (Narrowing over 1 1/2 No Needles)	No. of Rows between Narrowings	No. of Rows for Ankle	No. of Rows for Heel	No. of Stitches on Heelers	No. of Rows for Foot	Measurement in Inches	Leg Foot
	Front	Back											
1	34	34	200	40	160	3	20	72	26	9	96	14	6 1/2
2	36	36	236	40	196	3	20	80	28	10	124	16	7
3	38	38	264	40	232	3	20	80	30	10	132	18	7 1/2
4	40	40	292	44	260	4	20	90	30	11	140	20	8
5	42	42	336	44	296	4	20	90	30	11	148	20	8 1/2
6	44	44	372	44	332	4	20	100	32	12	156	22	9
S. Ladies'	48	48	400	48	360	5	20	104	32	12	166	25	9 1/2
Ladies'	50	50	432	48	392	5	20	110	34	13	176	26	10
S. Men's	54	54	372	48	332	5	20	110	34	13	180	23	10
Men's	56	56	392	48	352	5	20	110	34	13	200	24	11

SOCKS—(Half-Hose).

S. Men's	42	42	...	70	180	...	...	...	34	13	180	13	10
Men's	44	44	...	70	196	...	...	...	34	13	200	14	11

Guide to Tensions

MACHINE	WOOL	Plain Knit.	Cardigan Stitch.	Pearl Cardigan Stitch.	Circular.	Approximate Tensions for Main Cams.							
						10	13	12	14	14	14		
10-needle Gauge	2/32's 2/28's 2/24's	10 10 1/2 11	13 13 1/2 14	12 12 1/2 13	12 12 1/2 13	12 12 1/2 13	...	...	...	...	...	...	...
7-needle Gauge...	2/20's 2/16's 3/21's	12 12 1/2 13 1/2	15 15 1/2 16 1/2	14 14 1/2 15 1/2	14 14 1/2 15 1/2	14 14 1/2 15 1/2	...	...	...	...	...	...	...
4 1/2-needle Gauge	3/16's 4/14's 5/14's	13 13 1/2 14	15 15 1/2 16 1/2	14 14 1/2 15 1/2	14 14 1/2 15 1/2	14 14 1/2 15 1/2	...	...	...	...	...	...	...
		Push-rod A, B, C, D out Auxiliary Cams 3 points higher	Push-rod A, B, C, D out	Push-rod A, B, C, D out	Push-rod A, B, C, D out	Push-rod A, B, C, D out	...	...	...	...	...	...	...

If the above tensions do not suit the yarn employed, the indicators should be either lowered to produce a looser stitch, or raised to produce a tighter stitch.

The "Foster" Machine is not confined to the thicknesses and counts of thread given, as many various counts and folds are used, each manufacturer selecting those which suit the particular class of work intended to be knitted with this gauge of machine, therefore the operator can try various yarns either a little thicker or finer than those mentioned that will knit satisfactorily with the gauge of machine being used.

Instructions for Plaiting

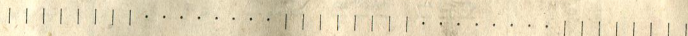
We were the first Knitting Machine Builders to introduce "Plaiting" on Flat Knitting Machines, and plaited fabrics have become very popular. It is therefore necessary to include a few notes on this subject.

Plaiting means to knit with two yarns at the same time, laying one at the back of the other. Two different colours of wools may be used, or two different yarns altogether, such as silk and wool. In the latter case the silk would be laid on the front and the wool behind, or cotton and wool may be plaited with the cotton behind, producing a cheap fabric with all the features of wool. There are a lot of lovely effects which can be produced by plaiting. The work is done by a plaiting yarn guide, shaped as illustrated.

Thread the yarn, which is to be laid on the front, through the centre hole (A), and the yarn which is to be laid at the back through the semi-circular canal (B). It will be seen that the yarn in canal (B) moves from side to side as the guide traverses backwards and forwards, and that it is always following behind the yarn in hole (A).

Care should be taken with the tension of the yarns. Always thread each plaiting yarn through a separate tension spring, in fact, keep them separate from the bobbins to the needles. Put a stronger "pull" on the back thread or the thread which is in canal (B).

To obtain a vertical stripe effect by plaiting set out the needles on front bed as follows:



All needles in action on the back bed.

Thread, say, a brown yarn through hole (A) and a white yarn through canal (B). This will produce a brown and white vertical stripe. See that the yarns used are not too thick.

For a check effect, proceed as above, but have a second plaiting guide (which can only be used on a Double Carrier Machine), and the second guide would be threaded with the same yarns, but exactly the reverse way about, that is, brown through canal (B) and white through hole (A).

The Plaiting Yarn Guide can be obtained separately from us. Price on application.

The Best Plaiting is obtained by using an Overhead Tension Stand.

Instructions for Knitting 12 useful Patterns

7 Needles Gauge using 2/16's Wool.
(A Knitted Strip showing all these Patterns can be supplied).

Pattern No. 1.

Set indicators for Cardigan stitch, Nos. 1 and 2 at 12, 3 and 4 at 0.
All push-rods in action. Commence with racking lever up.
Raise into action the number of needles required.
Cast on, form selvedge.

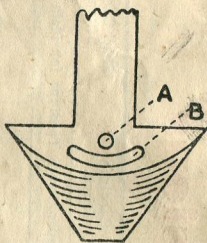


Fig. 18

Commencing at the right-hand front arrange the needles 1 up in action 1 down out of action all across.

At the right-hand back arrange the needles 2 up, 1 down, 1 up, 1 down, 1 up, 1 down, 1 up, 1 down, 1 up, 1 down, 2 up, 1 down, and so on.

Knit 2 rows—Rack one needle to right.

Knit 2 rows—Rack one needle to left.

Knit the number of rows required.

Pattern No. 2.

Commence with indicators and push-rods as for Pattern No. 1.

Cast on—form selvedge.

All needles up on back needle bed.

Commencing right-hand front arrange the needles 3 up in action, 3 down out of action all across.

Knit 9 rows racking, moving the rack handle to right.

Knit 1 row.

Move the rack handle to left.

Knit 1 row.

Miss racking the 10th row.

Repeat.

Pattern No. 3.

Commence with indicators and push-rods as for Pattern No. 1.

Cast on—form selvedge.

Commencing at right-hand side, arrange needles 2 up in action, 1 down out of action on back and front needle bed.

*Knit 2 rows—Rack one needle to right.

Knit 2 rows—Rack one needle to left.

Repeat from *.

Pattern No. 4.

Commence with indicators and push-rods as for Pattern No. 1.

Cast on—form selvedge.

All needles up on back bed.

At the right-hand front arrange the needles 7 up, 3 down all across.

*Knit 4 rows—Rack over 1 needle to right.

Knit 4 rows—Rack over 1 needle to left.

Repeat from *.

Pattern No. 5.

Commence with indicators and push-rods as for Pattern No. 1.

Cast on—form selvedge.

Commencing at the right-hand side, arrange the needles 2 up in action, 1 down out of action on back and front needle bed.

*Knit 6 rows—Rack over 1 needle to right.

Knit 6 rows—Rack over 1 needle to left.

Repeat from *.

Pattern No. 6.

Set indicators and push-rods for rib.
 Raise into action the number of needles required.
 Thread up the machine with white wool.
 Cast on—form selvedge.
 All needles up on the back bed.
 Commencing at the right-hand front, arrange the needles 4 up in action, 5 down out of action all across. Knit 6 rows in rib.
 *Piece on "Blue Wool," front slides pushed in, knit 4 rows.
 Piece on "White Wool," front slides drawn out, knit 6 rows.
 Repeat from *.

Pattern No. 7.

Set indicators and push-rods for rib.
 Raise into action the number of needles required—(23 needles required for pattern).
 Cast on—form selvedge.
 Knit 6 rows in rib.
 Transfer with the narrower the stitch from the centre needle on front on to the next needle (lifting to left side), do not depress empty needle.
 Knit 2 rows.
 Transfer a stitch each side centre needle on to the next needle (lifting the stitch outward), do not depress empty needles. Knit 2 rows.
 Continue the transferring 7 times, advancing one needle further each time. This completes half the diamond.
 Transfer the 6th stitch on to the 5th needle right and left of centre needle on front, do not depress empty needles.
 Knit 2 rows.
 Continue the transferring (lifting the stitches inwards) every 2 rows.
 To complete the diamond transfer the stitch from centre needle on to the next needle (lifting to left side), do not depress empty needle.
 Knit 6 rows.

Pattern No. 8.

Set indicators and push-rods for rib.
 Raise into action the number of needles required.
 Cast on—form selvedge.
 Knit 6 rows in rib.
 Back push-rods pushed in, knit 6 rows on front needles.
 Back push-rods drawn out, knit 6 rows in rib.
 All needles in action on the front needle bed.
 Commencing at the right-hand back, arrange the needles 1 up in action, 2 down out of action all across. Set indicators for Cardigan stitch.
 Knit 6 rows. Rack over one needle to right.
 Front push-rods pushed in, knit one row on back needles.
 Front push-rods drawn out, knit 5 rows, rack over one needle to left.
 Front push-rods pushed in, knit 1 row on back needles.

Front push-rods drawn out, knit 5 rows, rack over one needle to right.
 Front push-rods pushed in, knit one row on back needles.
 (Make six patterns in all.) After knitting the 5 rows of the 6th pattern, rack over one needle to left, push in front push-rods knit one row on back needles.

Raise into action the empty needles on back, make stitches for the empty needles by taking a loop from the needle opposite.

Set indicators for rib.

Knit one row on back needles.

Front push-rods in action, knit 6 rows in rib.

Back push-rods out of action, knit 6 rows on front needles.

Back push-rods in action, knit 6 rows in rib.

Pattern No. 9.

Set indicators and push-rods for rib.
 Raise into action the number of needles required.
 Cast on—form selvedge.
 All needles up on the back bed.
 Commencing right-hand front, arrange the needles 8 up, 2 down, all across.
 *Knit 10 rows in rib.
 Back push-rods pushed in, knit 4 rows on front needles.
 Back push-rods drawn out, knit 10 rows in rib.
 Back push-rods pushed in, knit 4 rows on front needles.
 Back push-rods drawn out, repeat from *.

Pattern No. 10.

Set indicators and push-rods for Cardigan Stitch.
 Raise into action the number of needles required.
 Cast on—form selvedge.
 Commencing at the right-hand side, arrange needles on front bed 1 up, 1 down, 3 up, 1 down, 1 up, 4 down, 1 up, 1 down, 3 up, 1 down, 1 up, 4 down.
 Arrange the needles on back bed 1 up, 1 down, *4 up, 2 down, 3 up, 2 down, 4 up, 2 down, 3 up, 2 down.
 Repeat from *.
 Knit 4 rows. Rack over one needle to right.
 Knit 4 rows. Rack over one needle to left.

Pattern No. 11.

Set indicators and push-rods for rib.
 Raise into action the number of needles required.
 Cast on—form selvedge.
 All needles up on back needle bed.
 Commencing right-hand front, arrange the needles 3 up in action, 9 down out of action all the way across.
 Knit 2 rows. Rack over one needle to right.
 Knit 2 rows. Rack over one needle to left.

Pattern No. 12.

Set indicators for rib. All push-rods in action.

Raise into action the number of needles required.

Cast on—form selvedge.

Knit 4 rows in rib.

Back push-rods out of action, knit 6 rows on front needles only.

Back push-rods in action, knit 2 rows in rib.

Arrange the needles on the front bed.

Commence at the right-hand corner 1 up in action, 6 down out of action, then 1 up, 12 down, all across, leaving a group of 6 down, 1 up, at the left-hand corner.

All needles in work on the back bed, knit 2 rows.

Raise into action an empty needle each side of the needle in work on front bed, this leaves the needles in groups 3 up in action. 10 down out of action, with one group of 5 needles down at each end.

Knit 2 rows.

Raise into action an empty needle at each side of the three needles in work, this leaves the needles 5 up in action, 8 down out of action, with one group of four needles at each end.

Knit 2 rows.

Continue raising a needle each side, knitting 2 rows between each widening until all the needles are raised into action.

Knit 2 rows.

At the right-hand front transfer the stitch from the 8th needle on to the 9th, 21st on the 22nd, 34th on the 35th, and so on. This leaves the needles in groups, 7 up in action, 1 down out of action, then 12 up, 1 down, all across, leaving a group of 7 needles up at the left-hand side.

Knit 2 rows.

At the right-hand front transfer the stitch from the 7th needle on to the 6th, 9th on the 10th, 20th on the 19th, 22nd on the 23rd, 33rd on the 32nd, 35th on the 36th, and so on.

This leaves the needles in groups, 10 up in action, 3 down out of action, with one group of 6 needles at each end.

Knit 2 rows.

Transfer the 6th on the 5th, 10th on the 11th, 19th on the 18th, 23rd on the 24th, 32nd on the 31st, 36th on the 37th, and so on.

This leaves the needles in groups, 8 up in action, 5 down out of action.

Knit 2 rows.

Continue the transferring until one needle remains up in action, 12 down out of action.

Knit 2 rows.

Raise into action the groups of 12 needles, make stitches for empty needles by taking a loop from the opposite needle on back.

Knit 4 rows.

Back push-rods out of action.

Knit 6 rows on front needles only.

Back push-rods in action.

Knit 4 rows in rib.

Instructions for making nine useful Garments for Outer Wear

Note.—Changes in fashion will make desirable variations in the shape and trimming of these garments, which are given only as a basis from which to work. They give, however, ample scope for the introduction of one's own individuality and style into the goods.

No. 1.

Ladies Plain Knit Jumper

Measurements 34/35" bust, length of Back of Neck to Hem 20".

10 needle gauge (using 2/32's wool).

Round Neck. Short Pleated Sleeves.

Back.

Set indicators and push-rods for rib.

Raise into action 260 needles on back needle bed.

Raise into action 260 needles on front needle bed.

Cast on (as page 14).

Arrange needles for 2/2 rib.

Knit 120 rows (this measures 3½" with weight holders on).

Raise into action all depressed needles between each needle group.

Knit 280 rows (this measures 16" from commencement with weight holders on).

Narrow all four corners (2 over 2), 6 times 4 rows between each narrowing.

Narrow all four corners (2 over 2), 3 times, 6 rows between each narrowing.*

Knit 134 rows after last narrowing.

Take from machine.

Front.

Follow instructions as for the back of Jumper to *. Knit 22 rows.

Knit in by hand a thread of wool (see note below) into 40 stitches on the front and back needle bed in centre of the machine. Cast these stitches off the needles, depress empty needles, this leaves 98 stitches each side, on remaining needles at left-hand side narrow at the two right-hand corners (2 over 1) 25 times 4 rows between each narrowing. Knit 8 rows after last narrowing.

Knit to centre of machine, draw a length of wool down between the needle beds. Knit across the needles at the right-hand side, narrow at the two left-hand corners (2 over 1) 25 times 4 rows between each narrowing. Knit 8 rows after last narrowing.

Take from machine.

Sleeves.

Raise into action 130 needles on back needle bed.

Raise into action 130 needles on front needle bed.

Set needles for 2 and 2 rib. Cast on, make selvedge. Knit 28 rows, raise into action all depressed needles between each needle group.

Widen (Method B) as at the right and left-hand corners 25 times 4 rows between each widening. Knit 8 rows after last widening. Narrow right and left-hand corners (2 over 1) 40 times 4 rows between each narrowing. Knit 6 rows.

Take from machine.

Neck Band.

Set indicators and push-rods for 2/2 rib.
Raise into action 260 needles on back needle bed.
Raise into action 260 needles on front needle bed.
Cast on, make selvedge. Knit 40 rows.
Take from machine.

Note.—To knit in by hand, raise each needle in rotation to its fullest height, which will open the needle latch. Take an odd wool thread and lay it into the hook; draw the needle down by hand, making a stitch with the odd wool. Having made a stitch on the first needle, pass the wool round the next one, and so on. Push up these needles to their fullest height and depress them out of action; this will cast the stitches off.

To Finish.

Press all pieces with a damp cloth and hot iron, unravel one or two rows of knitting, catch up all stitches by running a thread through, as the instruction for oversewing, make shoulder seams by joining the front stitches with equal number of stitches on the back. Join the side seams by making invisible seams. Run a thread along the top of sleeve, making two pleats. Seam up the side of sleeve, fixing pleats one each side of shoulder seam, sew in the sleeves.

Unravel neck band to 1½" commencing on the left shoulder, sew along the back and front, making an invisible seam, neatly finish off neck band by joining together.

Press completed garment with a damp cloth.

No. 2.

Ladies Plain Knit Cardigan

Measurements : Bust 34-35. Length from back of neck to hem 21".
Sleeve under arm 18".

10 needle gauge (using 2/32's wool).

Welted Style, 4 buttons, turn back cuff. Long sleeves.

Back.

Set indicators and push-rods for rib.
Raise into action 260 needles on back needle bed.
Raise into action 260 needles on front needle bed.
Set needles for 2 and 2 rib. Cast on, make selvedge.
Knit 120 rows (this measures 3½" with weight holders on).
Raise into action all depressed needles between each needle group.
Knit 280 rows (this measures 16" from commencement, weight holders on).
Narrow all four corners (2 over 2) 6 times 4 rows between each narrowing.
Narrow all four corners (2 over 2) 3 times 6 rows between each narrowing.
Knit 134 rows after last narrowing.
Take from machine.

Front.

Set indicators and push-rods for rib.
Raise into action 140 needles on back needle bed.
Raise into action 140 needles on front needle bed.
Set needles for 2 and 2 rib. Cast on, make selvedge.
Knit 120 rows (this measures 3½" with weight holders on).
Raise into action all depressed needles between each needle group.
Knit 160 rows (this measures 12" from commencement, weight holders on).
Narrow at the two right-hand corners (2 over 1) 13 times 6 rows between.
Continue narrowing (2 over 1) 4 rows between each narrowing at the same time.
Narrow left-hand corners (2 over 2) 6 times 4 rows between.
Narrow left-hand corners (2 over 2) 3 times 6 rows between.
Continue narrowing right-hand corners until 36 narrowings have been completed.
Take from machine.
(For second front reverse the narrowings to correspond.)

Sleeves.

Set indicators and push-rods for rib.
Raise into action 170 needles on back needle bed.
Raise into action 170 needles on front needle bed.
Set needles for 2 and 2 rib.
Cast on, make selvedge. Knit 140 rows (this measures 4½", weight holders on).
Push up all depressed needles between the needle groups. Knit 40 rows.
Widen right and left-hand corners (as Method B) 18 times 14 rows between.
Narrow 85 times (2 over 1) 2 rows between.
Take from machine.

Strip.

Set all indicators and push-rods for rib.
Raise into action 22 needles on the front needle bed.
Raise into action 22 needles on the back needle bed.
Knit required, length (1½ yards).

To finish.

Press all pieces with a damp cloth and hot iron. Unravel one or two rows of knitting. Catch up all stitches by running a thread through (as instructed in paragraph "Oversewing"). Join the stitches at the top of front to an equal number of stitches on back for shoulders. Seam up the sides to underarm. Seam up sleeves, fix in sleeves and sew.
Taking the selvedge side of the strip, commencing at the edge of right front, sew all round, taking care to slightly stretch the strip.
Make 4 button holes or loops on the right-hand side from the edge to the first narrowing. Buttons to correspond on the left side.
Press completed garment with a damp cloth. Turn back the cuffs.

No. 3.
Men's Polo Neck Pullover

Measurements from back of neck to hem 23", Chest 36",
Sleeve under arm 19½".

10 needle gauge (using 2/32's wool).

Front.

Set indicators and push-rods for rib.

Raise into action 270 needles on the back needle bed.

Raise into action 270 needles on the front needle bed.

Set needles for 2 and 2 rib and cast on as page 12.

Knit 120 rows (this measures 3½" with weight holders on).

Raise into action all depressed needles between each needle group.

Knit 260 rows (this measures 15" from commencement with weight holders on).

Narrow all four corners (2 over 2) 6 times 4 rows between each narrowing.

Raise all four corners (2 over 2) 3 times 6 rows between each narrowing.

Knit 170 rows, transfer 119 needles in the centre on the back and front needle beds, making 2 and 2 rib.

Cast off the stitches each side and depress empty needles.

Cast off at each side on back and front beds 75 needles, leaving 120 needles in action. By means of the 1-eye narrower, transfer every third stitch on to the next needle, commencing at the left. This will now give you a setting of 2 and 2 rib, as shown on page 12.

Continue knitting in 2 and 2 rib for 200 rows.

Take from machine.

Back.

Follow instructions as for front.

Sleeves.

Set tensions and push-rods for rib.

Raise into action 140 needles on the back needle bed.

Raise into action 140 needles on the front needle bed.

Set needles for 2 and 2 rib.

Knit 140 rows (this measures 4½", weight holders on).

Raise into action all depressed needles between each needle group.

Widen all four corners (as Method B) 23 times 14 rows between.

Take from machine.

To finish.

Press all pieces with a damp cloth and hot iron. Unravel one or two rows of knitting, catch up stitches on shoulders and the top of the sleeves by running a thread through, sew up shoulders and reverse garment and sew up sides of Polo collar, having the garment on the wrong side, sew up sides and fix in the sleeves. Sew up sleeve seam.

Elastic stitch round the top of the collar, roll down the collar and turn back the cuffs. Press with a damp cloth.

No. 4.
Men's Cardigan

Measurements: Length, 26"; Width of Chest, 40".

7 needle gauge (using 2/16's wool).

CARDIGAN STITCH.

Back.

Set indicators for Cardigan stitch 1 and 2 at 12, 3 and 4 at 1
All push-rods in action.

120 needles in action on front needle bed.

120 needles in action on back needle bed.

Cast on, insert set-up, attach weights.

Push-rods A and B pushed in. Knit 2 circular rounds.

Push-rods A and B drawn out. Knit 400 rows.

Narrow at the right-and left-hand corners (2 over 1) 8 times.

4 rows between each narrowing.

Knit 216 rows.

Narrow right and left-hand corners (2 over 1).

26 times, 4 rows between each narrowing.

4 times, 2 rows between each narrowing.

Set indicators 1 and 3 at 10. Knit 1 row.

Set indicators 2 and 4 at 10. Knit 5 rows.

Take from machine.

Front.

Set indicators for Cardigan stitch 1 and 2 at 12, 3 and 4 at 1.

All push-rods in action.

76 needles in action on front needle bed.

76 needles in action on back needle bed.

Cast on, insert set-up, attach weights.

Push-rods A and B pushed in. Knit 2 circular rounds.

Push-rods A and B drawn out. Knit 400 rows.

At the two right-hand corners knit in by hand a thread of wool into 6 stitches, cast these stitches off the needles, depress empty needles.

Narrow at the two right-hand corners 12 times, 4 rows between each narrowing.

Narrow at the two left-hand corners 24 times, 10 rows between each narrowing.

Knit 40 rows after the last narrowing.

Set indicators 1 and 3 at 10. Knit 1 row.

Set indicators 2 and 4 at 10. Knit 5 rows.

Take from machine.

Sleeves.

Set indicators for rib at 9½.

All push-rods in action.

84 needles in action on front needle bed.

84 needles in action on back needle bed.

Arrange needles for 2/2 rib.
Cast on, insert set-up, attach weights.
Push-rods A and B pushed in. Knit 2 circular rounds.
Push-rods A and B drawn out. Knit 60 rows.
Raise into action all depressed needles between needle groups.
Set indicators for Cardigan 1 and 2 at 12, 3 and 4 at 1.
Knit 20 rows.
Widen right and left-hand corners 6 times, 20 rows between each widening.
Knit 390 rows.
Set indicators 1 and 3 at 10. Knit 1 row.
Set indicators 2 and 4 at 10. Knit 5 rows.
Take from machine.

Pockets.

Set indicators for rib at 9½.
All push-rods in action.
42 needles in action on the front needle bed.
42 needles in action on the back needle bed.
Cast on, insert set-up, attach weights.
Push-rods A and B pushed in. Knit 2 circular rounds.
Push-rods A and B drawn out. Knit 20 rows.
Set indicators for Cardigan 1 and 2 at 12, 3 and 4 at 1.
Knit 120 rows.
Set indicators 1 and 3 at 10. Knit 1 row.
Set indicators 2 and 4 at 10. Knit 5 rows.
Take from machine.

Strip for around Neck and down front of Cardigan.

Set indicators for rib at 9½.
All push-rods in action.
16 needles in action on front needle bed.
16 needles in action on back needle bed.
Cast on, insert set-up, attach weights.
Push-rods A and B pushed in. Knit 2 circular rounds.
Push-rods A and B drawn out. Knit in rib required length—2 yards.

To finish.

Unravel 1 or 2 rows of knitting and finish off the stitches at the neck on back, also the stitches at the top of each front piece.
Join 1 front to each side of the back from the bottom to the casting-off of the stitches for under arm. Join the stitches at the top of each front neatly to the shoulder of the back piece. Sew in the sleeves, the seam of sleeve meeting the seam of Cardigan. Sew the strip on each front and round the neck, commencing at the bottom of the left front and finishing at the bottom of the right front. Sew 1 pocket to the bottom of each front, commencing about 16 stitches from side seam.
Make 6 or 7 button holes down the left side of front, sew buttons to correspond on the right side.

No. 5.

Boy's Jersey Suit

Measurements : Jersey, from shoulder to hem, 16", Chest 24",
Sleeve under arm 13". Knickers, width, all round,
22", Length 12".

10 needle gauge (using 2/32's wool).
Square Neck, size 16".

Jersey Back.

Set indicators and push-rods for rib.
Raise into action 190 needles on back needle bed.
Raise into action 190 needles on front needle bed.
Set needles for 2 and 2 rib.
Cast on, make selvedge.
Knit 62 rows (this measures 2½", weight holders on).
Raise into action the needles drawn down between each needle group on back and front needle beds.
Knit 124 rows (this measures 12" from commencement, weight holders on).
At the right and left-hand side narrow (2 over 2) 4 times, 8 rows, between each narrowing.
Knit 60 rows after last narrowing.
Knit in by hand a thread of wool (see note on Jumper) into 54 stitches on back and front needle beds in centre of machine. Cast these stitches off the needles. Push empty needles down out of action. On the remaining needles at left-hand side knit 20 rows. Knit to centre of machine. Draw wool down between needle beds. Knit 20 rows. Take from machine.
Make a similar piece for front of Jersey, but add 4 more rows to each shoulder piece.

Sleeves.

Set indicators and push-rods for rib.
Raise into action 130 needles on the front needle bed.
Raise into action 130 needles on the back needle bed.
Arrange needles for 2 and 2 rib.
Cast on, make selvedge. Knit 60 rows (this measures 2½", weight holders on).
Raise into action the needles drawn down between each needle group on back and front beds.
Knit 24 rows. At the right and left-hand side widen (as Method B) 14 times 14 rows between. Knit 40 rows after last narrowing.
Take from machine.

Pants.

Set indicators and push-rods for rib.
Raise into action 190 needles on back needle bed.
Raise into action 190 needles on front needle bed.
Arrange needles for 2 and 2 rib.
Cast on, make selvedge.

Knit 24 rows. Raise into action the depressed needles between each needle group on back and front needle beds. Knit 172 rows (this should measure 12" from commencement, weight holders on).

Loosen indicators approx. 1 to 1½ degrees.

Front push-rods No. A and C out of action.

Knit 6 rows on back needles only.

Draw wool down between needle beds.

Front push-rods A and C in action, back slides out of action.

Knit 6 rows on the front needles.

Draw wool down between needle beds.

Back push-rods No. B and D out of action. Front push-rods in action.

Knit 6 rows. All push-rods A, B, C and D in action. Alter indicators back to the rib setting. Knit 4 rows.

Take from machine.

Make a similar piece for second leg.

To finish Jersey.

Press all pieces with a damp cloth and hot iron. Unravel one or two rows of knitting and finish off the stitches at the neck and shoulder.

Commencing at the outside edge join 20 stitches of front shoulder seam to 20 stitches on the back shoulder piece. Seam the front and back together from the bottom to the first narrowing. Sew in sleeves, meeting the seam of the Jersey.

Crochet round the neck and across front shoulder pieces, also make 3 button loops on front shoulder pieces. Sew buttons to correspond on the back.

To finish Pants.

Unravel one or two rows and finish off the stitches at the top, also the ends of wool drawn down each side.

Join the two pieces together from the waist to the first row of the ribbed part. Seam each part separate to form the leg, thread a length of elastic through the plain rows at the waist.

No. 6.

Child's Breechette Set

Measurements : Coat : Length 12", Chest 20", Sleeve Under Arm 6".

Leggings : Length of Front Seam 8".

Length of leg seam to centre of foot 10½".

Length of foot to centre of heel 5".

10 needle gauge (using 2/32's wool).

Plain knit, size 12".

Back.

Set indicators and push-rods for rib (see page 19).

Raise into action 150 needles on the front needle bed.

Raise into action 150 needles on the back needle bed.

Cast on (as page 14).

Knit 180 rows rib.

Narrow right and left-hand corners (2 over 2) 4 times 2 rows between.

Knit 87 rows.

Take from machine.

Front.

Set indicators and push-rods for rib.

Raise into action 75 needles on the back needle bed.

Raise into action 75 needles on the front needle bed.

Cast on (as page 14).

Knit 180 rows.

Narrow (2 over 2) 4 times 2 rows between.

Knit 59 rows after last narrowing.

Cast off 28 stitches by running a thread through on the opposite side to the narrowing. (See note in Jumper Instructions.)

Knit 2 rows narrow (2 over 1) 3 times 4 rows between.

Knit 6 rows.

Take from machine.

(For second front repeat the above, but narrowings and casting off will be at the opposite sides).

Sleeves.

Set indicators and push-rods for rib.

Raise into action 90 needles on front needle bed.

Raise into action 90 needles on back needle bed.

Set needles for 2 and 2 rib. (See page 19).

Cast on, make selvedge. Knit 60 rows.

Raise into action all depressed needles between the needle groups.

Knit 7 rows. Widen (as Method B) 10 times, 14 rows between.

Knit 30 rows.

Take from machine.

Collar.

Set indicators and push-rods for rib.

Raise into action 131 needles on the front needle bed.

Raise into action 131 needles on the back needle bed.

Cast on, make selvedge. Knit 70 rows.

Take from machine.

Beret.

Set indicators and push-rods for rib.

Raise into action 168 needles on the front needle bed.

Raise into action 168 needles on the back needle bed.

Arrange needles for 2 and 2 rib. Cast on and knit 22 rows.

Raise into action all depressed needles between each needle group.

Knit 65 rows, transfer needles on the back and front needle bed, making 1 up in action, 1 down out of action, all across.

Knit 14 rows, transfer needles on back and front needle bed, making 1 up in action, 3 down out of action, all across.

Knit 10 rows.

Take from machine.

Leggings with Feet.

Set indicators and push-rods for rib.

Raise into action 156 needles on the front needle bed.

Raise into action 156 needles on the back needle bed.

Cast on. Knit circular as instructions given for boy's pants, continue all push-rods in action. Knit 200 rows.

Cast off 12 stitches at all four corners.

Narrow at all four corners (2 over 1) 4 rows between 50 times.

Cast off 50 stitches by running a thread through the stitches.

Take the stitches off the needles, depress empty needles (see note in Jumper instructions). Continue on remaining 50 needles, narrowing all four corners 10 times (2 over 1) 2 rows between.

Knit 8 rows. Widen (as Method A) all four corners 10 times 2 rows between.

Knit 50 rows. Narrow all four corners 15 times (2 over 1) 2 rows between. Knit 6 rows.

Take from machine.

Press with a hot iron and damp cloth the 50 cast off stitches. Unravel running thread. Pick up the stitches neatly in the machine.

Unravel 1 row (see Notes, page 14).

Knit 50 rows. Narrow 15 times (2 over 1) 2 rows between.

Take from machine.

(Knit a second piece to correspond).

To finish Coat

Press all pieces, run thread through all the stitches as instruction for "Oversewing."

Join the shoulder seams together, fix in the sleeves.

Sew up sides and sleeve seam, making a turn back cuff.

Commence sewing the collar, leaving $\frac{1}{2}$ " on the left-hand side.

Sew on, leaving $\frac{1}{2}$ " on the right-hand side.

Finish remaining stitches off neatly.

Sew press stud at the neck opening.

3" down from neck opening make two button loops, 1" apart on the left-hand side.

Sew buttons to correspond. Make double breasted.

Beret.

Press with hot iron and damp cloth. Seam the sides together, run needle through the top stitches, pull up tightly, finish off neatly.

Turn up the hem $\frac{1}{2}$ ".

Press flat with a hot iron and damp cloth, first placing inside the beret a circular piece of cardboard, approx. 8" diameter.

Leggings.

Press with a hot iron and damp cloth.

Sew up centre seam from casting on end to narrowing at the top of leg, back and front. Sew leg seam to the toe, graft toe stitches together, seam down the heel. Thread a length of elastic through waist, thread in twisted cord through the ankle part of foot.

Press the completed garment.

No. 7.

Ladies Wool Hose

Measurements: Length of Leg, 27", Foot, 9 $\frac{1}{2}$ ".

7 needle gauge (using 2/16's Fingering).

(Stocking Accessories additional to the List of Accessories are required).

Set indicators for circular work 1 and 2 at 13, 3 and 4 at 1.

All push-rods in action.

56 needles in action on front needle bed.

56 needles in action on back needle bed.

Thread up the machine with waste wool.

Cast on, insert set-up, attach weights.

Push-rods A and B pushed in, knit a few rounds in circular with waste wool, piece on 2-ply wool. Knit 240 rows.

Knit 220 rows.

Narrow at right and left-hand front corners (2 over 1).

Knit 12 rows.

Narrow at right and left-hand back corners (2 over 1).

Knit 12 rows.

Continue narrowing front and back alternately 12 rows between each narrowing, until 48 needles remain on front needle bed and 48 needles on the back needle bed.

Knit 110 rows for ankle.

For the Heel.

Set indicators 2 and 4 on back at 14 (Heel Spliced).

Set indicators 3 and 4 on front at 1.

Back push-rods drawn out.

Front push-rods pushed in.

Knit 4 rows, lower the bed, place in triangular wires, attach weight.

Close the bed.

Knit 26 rows.

Divide the back needles in three parts, transfer the 13th stitch on the 14th needle at right and left-hand side. Depress empty needles. Place in heel hanger, attach weight.

At the right-hand back, transfer 12 stitches from the needles on to the 2 eye heelers. Depress empty needles. Knit 1 row.

At the left-hand back transfer 12 stitches from the needles on to the heelers. Knit 1 row.

At the right-hand side raise into action an empty needle, transfer 2 stitches from the nearest heeler, 1 on to the empty needle, and 1 on to the end needle with a stitch. Knit 1 row. Transfer 2 stitches in the same manner at the left side. Knit 1 row. Continue in this manner until all stitches have been transferred from the heelers to the needles. Stop with handle at right-hand side.

Lower the bed, take out triangular wires.

At the left-hand side raise into action 3 empty needles on front of machine, 10 needles on back, hook the side loops on to these needles. Close the bed. Knit 1 row.

At the right-hand side raise into action 3 empty needles on front of the machine, 10 needles on back, hook the side loops on to these needles. Knit 1 row.

Set indicators 1 and 2 at 14.

Set indicators 3 and 4 at 1.

Push-rods A and B pushed in, C and D drawn out.

Knit 3 circular rounds.

Narrow right- and left-hand corners (2 over 1) 3 times, 3 rounds between each narrowing.

Knit 120 rows for foot.

Narrow for toe.

At the right and left-hand corners 7 times, 3 rounds between each narrowing. Narrow right and left-hand corners, 1 round between each narrowing until 6 needles remain.

Transfer front stitches to back needles.

Take toe off.

Press the top of stocking, unravel the waste wool at the top, turn down a hem $1\frac{1}{2}$ " deep.

No. 8.

Men's Golf Hose

Measurements: 19" Leg, $10\frac{1}{2}$ " Foot.

7 needle gauge (using 4-Ply Fingering).

(Stocking Accessories additional to the List of Accessories are required).

Top.

Made from 4-ply Fawn Marl Fingering and 3/2s Grey and Camel.

Set indicators for rib at 11.

All push-rods in action.

Raise into action 81 needles on front needle bed.

Raise into action 81 needles on back needle bed.

Thread up the machine with 4-ply Marl.

Cast on insert, set-up, attach weights.

Push-rods A and B pushed in, knit 1 circular round.

Push-rods A and B drawn out, knit 8 rows in rib.

Set front indicators at 13. Back push-rods pushed in, knit 6 rows on front needles with Camel.

Front indicators at 11. Back push-rods drawn out, knit 10 rows in Marl.

Arrange front needles 3 up in action, 3 down out of action.

All needles up in action on back bed.

Set indicators for Cardigan 1 and 2 at 13, 3 and 4 at 1.

Piece on Grey wool, knit 10 rows, moving the rack handle *each row* except before the 10th row.

Repeat 10 rows in Camel; 10 rows in Grey.

Raise into action the groups of 3 needles on front, make stitches for the empty needles by picking up half stitches from back bed.

Piece on Marl 4-ply.

Set indicators 1 and 3 on front at 11.

Knit 1 row, set indicators 2 and 4 on back at 11, knit 9 rows.

Set front indicators at 13.

Back push-rods pushed in.

Knit 6 rows on front needles with Camel. Front indicators at 11.

Back push-rods drawn out.

Knit 24 rows in Marl.

Take from machine.



Fig. 19

Stocking.

Set indicators for rib at 13.

All push-rods in action.

Raise into action 98 needles on front needle bed.

Raise into action 98 needles on back needle bed.

Commencing at the right-hand front, arrange the needles 10 up in action, 1 down out of action all across.

At the right-hand back arrange the needles 10 down, 2 up, then 9 down 2 up all across.

This leaves 9 groups of 10 on front and 8 groups of 2 on back.

Lower the front needle bed ; one of the tops must now be hooked on to these needles with the fancy side towards the back. There are 56 stitches to be doubled.

Close the bed.

Knit 84 rows.

Narrowings.

Narrow right and left-hand corner of the front needles with 2-eye narrower (2 stitches over 1) 7 times, with 4 rows between each narrowing.

8th Narrowing.—Raise into action the empty needle on front, drawn down between the group of 10, transfer 2 stitches from the back needles, 1 on to the empty needle and 1 on to the next needle with a stitch.

Knit 4 rows.

Continue the narrowings in this manner until you have 5 groups of 10 and 2 groups of 5 needles on front needle bed.
6 groups of 2 on back needle bed.

Knit 50 rows for ankle.

For the Heel.

At the right-hand corner knit in by hand a thread of wool into 15 stitches on front and 4 stitches on back, cast these stitches off the needles, depress empty needles, knit 1 row at the left-hand corner.

Knit in by hand a thread of wool into 15 stitches on front and 4 stitches on back, cast these stitches off the needles, depress empty needles.

Knit 60 rows for instep.

Take from machine.

Heel and Under Part of Foot.

Set back indicators at 14.

Set front indicators at 1.

Back push-rods drawn out ; front push-rods pushed in.

Raise into action 36 needles on back of machine.

Lower the bed, take the stocking leg and hook the stitches that were cast off for the heel on to these needles, place on buckle, attach weight.

Close the bed. Knit 32 rows. Stop with handle at left side.

At the right- and left-hand side transfer the stitch from the 11th needle on to the 12th. Depress empty needles, place in heel hanger, attach weight.

At the right-hand side, transfer 10 stitches from the needles on to the 2-eye heelers, depress empty needles. Knit 1 row.

At the left-hand side, transfer 10 stitches from the needles on to the 2-eye heelers, depress empty needles. Knit 1 row.

At the right-hand side, raise into action an empty needle next to the end needle in work, transfer two stitches from the nearest heeler 1 on to the end needle with a stitch and 1 on to the empty needle. Knit 1 row.

Transfer 2 stitches in the same manner at the left side, continue in this manner, knitting 1 row between each transfer until all stitches have been transferred from the 2-eye heelers on to the needles.

Stop with handle at right-hand side.

Raise into action 15 needles at left-hand side, hook the side loops on to these needles. Knit 1 row.

Raise into action 15 needles at right side, hook the side loops on to these needles. Knit 4 rows.

Narrow right and left-hand corners (2 stitches over 1) 7 times, 2 rows between each narrowing.

Knit 54 rows for under part of foot.

Raise into action 40 needles on front of machine, the stitches for the ribbed part of foot must now be hooked on to the front needles, leaving every 8th needle empty, make a stitch for the empty needle by taking a loop from the next needle with a stitch.

Set indicators for circular work 1 and 2 at 14, 3 and 4 at 1.

Push-rods A and B pushed in.

Push-rods C and D drawn out.

Knit 6 rows.

Narrow right and left-hand corners 5 times, 6 rows between each narrowing.

Narrow 2 rows between to 6 needles.

Transfer front stitches to back needles, take toe off.

No. 9.

Child's Sock

Measurements Leg, 8", Foot 6".

7 needle gauge (using 2/16's Wool).

(Stocking Accessories additional to the List of Accessories are required).

1/1 Ribbed Top.

Set indicators for rib at 9½. All push-rods in action.

36 needles in action on front needle bed.

36 needles in action on back needle bed.

Cast on, insert set-up, attach weights.

Push-rods A and B pushed in, knit 1 circular round.

Push-rods A and B drawn out, knit 36 rows in rib.

Take from machine.

Leg plain, set for circular, 1 and 2 at 11½, 3 and 4 at 1.

Push-rods A and B pushed in.

Push-rods C and D drawn out.

Lower the bed, take the ribbed top, commencing with the end stitch of the rib, hook it on the centre needle on back, continue placing each stitch on a needle until the right-hand corner is reached, now turn the rib top to the front and continue hooking on the stitches along the front needles until the left-hand corner is reached, now turn the rib top to the back and hook the remaining stitches on the left half of back needles.

Close the bed, place on buckle, attach weight.

Knit in circular, 90 rows.

Indicators 1 and 2 at 11, knit 50 rows.

Set for heel.

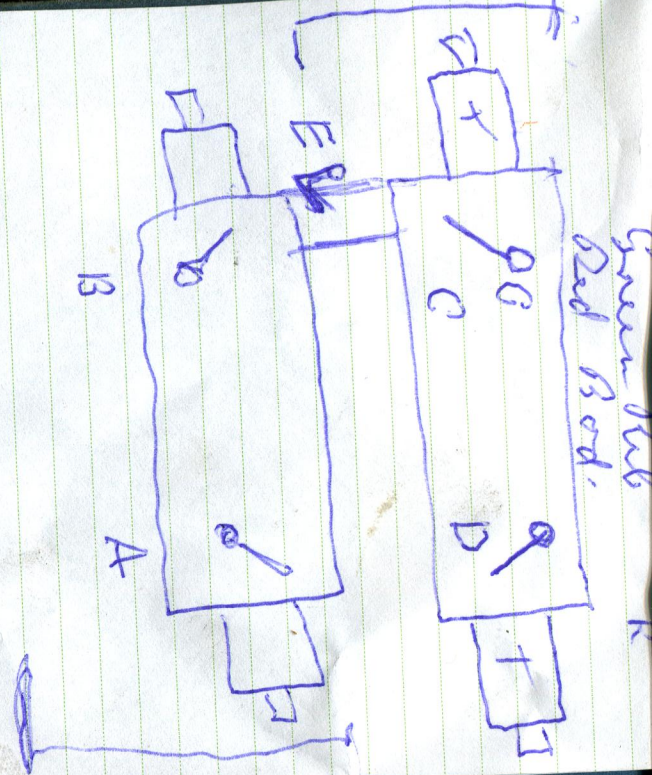
Indicators 2 and 4 at 12 (heel spliced, see footnote).

Indicators 1 and 3 at 1.



Fig. 20

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13 in Centre Professors

All Cams in GTR you in E to
 you Cams to Red. 1 Row to
 Cancelled Cams. A & G in
~~Red~~ Cam L + R. All Cams
 out that 25 Reers. You
 to Red. that 33 only.
 Put Counter.
 You's Equitable necessary
 to you used.

All Cams out Switch Front
 Tickets Turn on Red Engrit.
 D on Black A
 Put in Cam 1 to left
 to right, A change to
 Reers E to Back. Cams A & G
 in Cams to Right & Left
 change E to Centre the
 All Cams in AT
 "For prompt, personal service call the team you can trust".