

*Read Carefully . . .
before Starting Machine.*

UNIVERSAL MACHINERY COY.

8 PAGE CYCLES,

ADELAIDE.

Instruction Book

FOR THE CELEBRATED

"BEEHIVE"

— UP-TO-DATE —

Ribber Knitting Machine

The Latest Thing in Knitting Machines.

HIGHEST AWARD:

Paris, 1905; Antwerp, 1906; Vienna, 1906.

UNIVERSAL MACHINERY COY.

ADELAIDE.

SECOND and REVISED EDITION.

PRICE . . . ONE SHILLING.

A Few Useful Hints...

Keep Machine well Oiled.

Before Starting, take
Ribber off. SEE
PART 2

IMPORTANT. — The tension is set
ready for learning. Learn plain
knitting first. Hold the work
well down by hand in addition
to weights.

Hold work firmly down, and use
Buckle and Weights provided.

UNIVERSAL MACHINERY COY.
8 PAGE STREET,
ADELAIDE.

INSTRUCTIONS FOR KNITTING.

Read first 9 paragraphs before starting.

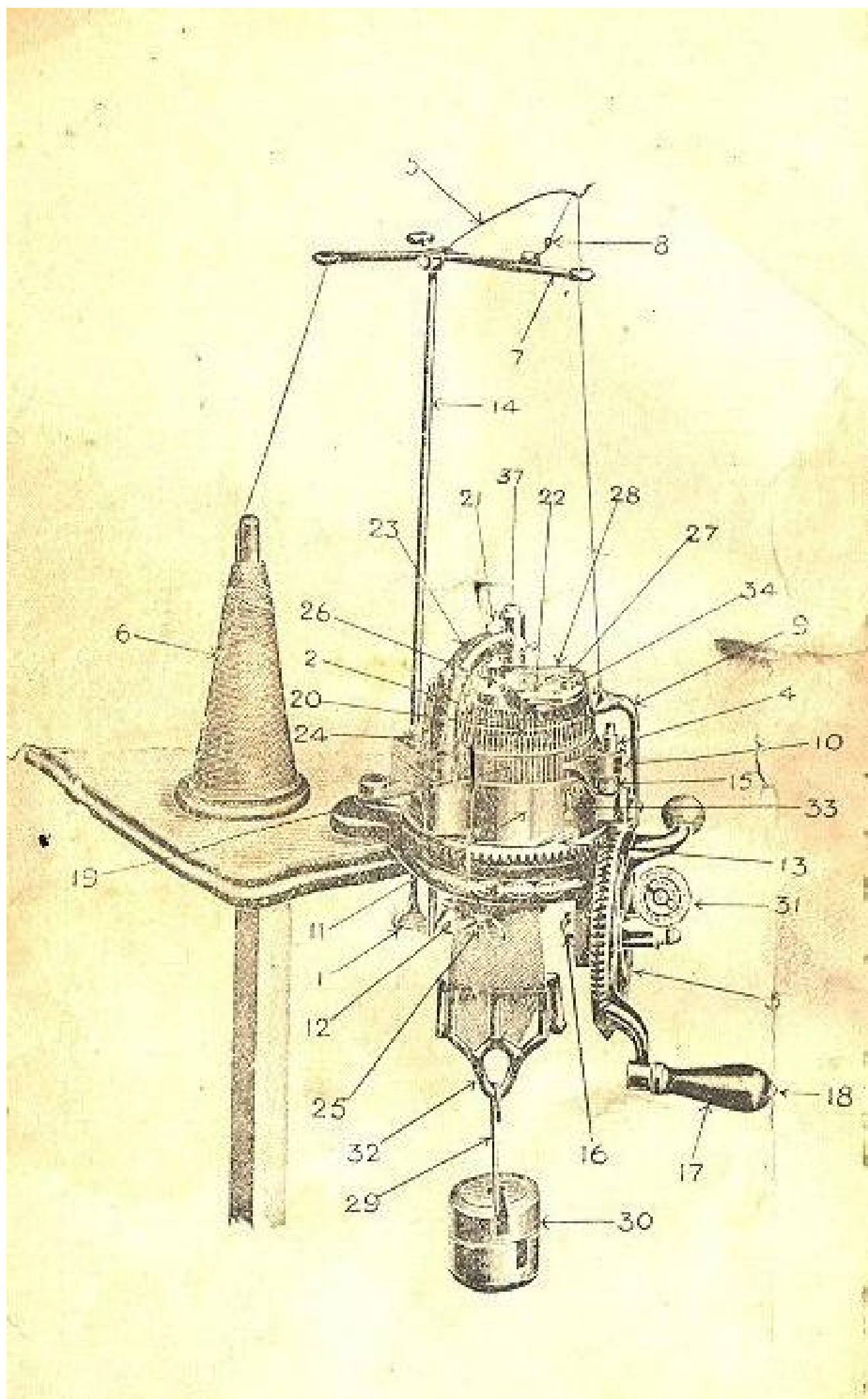
LEARN THE PLAIN KNITTING FIRST.

1. **Unpacking Machine.**—Remove nails at top and sides securing lid addressed and take out loose parts and packing material. You will then notice that the machine is secured to a wooden crosspiece to prevent the possibility of moving. Undo the clamp screws and take out the machine carefully, fixing same at once by means of the clamp screws No. 1 firmly to a bench or table.

Before proceeding to knit see that a stitch is on each needle. If any of the stitches have come off during transit they can be easily replaced by a spare needle or by the work-hook provided.

2.—**To Remove Ribber.**—Cut any pieces of string by which parts of machine have been secured for safety in transit, **being careful not to cut yarn.** Take hold of Ribber Arm No. 23, and lift out of socket. If stiff, assist with screw driver in slot at base. Place on table out of your way, or in hole at left hand of name plate.

3. **Threading Machine.**—Pass yarn through eye of yarn stand directly over bobbin No. 6, then forward through middle eye and under take-up-lock No. 8, and forward down through eye of long arm of yarn stand, which must be over centre of machine, then through loop and eye of yarn-carrier No. 9, from outside, leaving about one yard of yarn on inside of cylinder. Strong thread is the best to Set-up with, and thus saves yarn. The other eye at back of Yarn Stand Top is used for extra bobbin when making double heel and toe.



LIST OF PARTS.

- | | |
|--|---|
| 1. Clamp Screw | 20. Clasp Ring |
| 2. Needles | 21. Driving Pin |
| 3. Crank Wheel | 22. Dial Tappet Plate (see also illustration inside back cover) |
| 4. Cylinder Tension Nut | 23. Ribber Arm |
| 5. Heel Spring | 24. " " Screw |
| 6. Bobbin | 25. Dial Adjuster |
| 7. Yarn Stand Top | 26. Timing Screw |
| 8. Take-up Lock | 27. Ribber Tension Screw |
| 9. Yarn Carrier | 28. Switch Pin for putting Ribber Needles in and out of action |
| 10. Tension Cam for Cylinder Needles | 29. Weight Holder |
| 11. Cam Cylinder, or Shell | 30. Weights |
| 12. Bedplate | 31. Counter, or Indicator |
| 13. Gear Ring | 32. Buckle |
| 14. Yarn Stand Rod | 33. Left hand Uptthrow Spring |
| 15. Cylinder Tension Cam Spring | 34. Ribber Tension Spring |
| 16. Crank Wheel, Stud & Nut | 35. Winder |
| 17. " " " Handle | 36. Swift |
| 18. " " " Pin | 37. Centre Stud for Dial. |
| 19. Needle Cylinder | |

REMARKS.

Several parts of the Machine have had to be shown in unusual positions, so that everything could be clearly seen in the illustration.

The bobbin should be **directly under** the eye of yarn stand top.

The yarn is shown carried over heel-spring as used when knitting heels and toes. In ordinary knitting it should pass through the front eye of yarn stand top without going over the heel-spring.

The counter, or indicator, is shown vertical, but its correct position is horizontal. Turn the screw slightly to the left, adjust counter to its correct position and tighten screw again.

The actual Uptthrow (No. 33) is the Pointer inside the shell and cannot be seen in the illustration. There is an Uptthrow on each side of the V Cam.

~~The Dial Adjuster No. 25 is turned under for purposes of packing. (See par 24)~~

4. **Oiling Machine.**—The machine must be oiled round the cam cylinder, needle cylinder, where the needles go, in the dial grooves, round the cogs of the driving wheel, also wherever two hard parts are rubbing together.

5. **Regulating Length of Stitch.**—Raise tension-cam, No. 10 (by turning Tension Nut No. 4 to left) for short or tight stitch; lower (by turning to right) for long or loose stitch. Knit with loose tension while learning.

6. **Regulating Heel Spring**—Unfasten screw at back of top of yarn stand, which holds heel-spring No. 5. Throw the heel-spring back for a strong spring and forward for a weak spring. Tighten screw after regulating the heel-spring. Coarse yarn requires a stronger spring than medium yarn.

7. **Important.**—To make proper stitches do not commence to turn handle unless work is firmly held down all the time.

(1) The Machine is ~~sent out~~ with tension set ready for learning. Learn **plain** knitting first. **Hold the work well down by hand** in addition to weights.

(2) The "V" or tension cam nut must be regulated to suit the yarn.

(3) The bobbin must be evenly wound, and fullest at the bottom, or the yarn will not come off freely; besides, the work will be irregular and it will be harder to keep the stitches down on needles. Yarn **must be** loosely wound.

8. **To Set Up.**—Thread machine with strong thread (see paragraph 3) and tie this to loose end of yarn in the work already on machine. (Cotton or thread is best to set up with and saves yarn). Take up any slackness and **Commence to knit**, by turning forward, *at the same time holding down by hand the work on machine sufficiently to permit every needle to form stitches* watch carefully the operation of the needles, and learn how the stitches are formed. If any needle drops to soon, it is because no thread is round it.

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Knit four or five rounds and stop yarn carrier on front side of machine nearest to you. Raise out of action all needles not engaged in cam, hold work well down and turn handle forward until **V** cam passes under needles first raised and raise the remainder. **All needles being now out of action**, break cotton, leaving a few inches hanging, with which tie a stitch round next needle to prevent last stitch coming loose; re-thread machine with yarn, drawing through yarn carrier at least a yard, which is used for setting up selvedge. Make a neat slip-knot in the yarn near the end and drop this over one of the needles at right hand side of the machine: this forms your first stitch. Take the yarn in right hand, pass it loosely from inside, round next needle away from you in the **opposite** direction to the hands of a clock and so on round the cylinder, thus forming loops or stitches on all the needles, and **hold each loop down** (with the fore-finger of left hand) **close to top of cylinder** whilst making the next, being careful not to get it *too tight*. This forms selvedge top. In moving yarn carrier out of your way when setting up, see that the yarn is kept **outside the needles**.

Having placed loops on all the needles, **see that all latches are down**, press down about two-thirds commencing with that on which you placed the first stitch. Take up any slackness in yarn by wrapping round the bobbin. Pull work well down, turn handle slowly forward and see that yarn feeds into hook of **first** needle. Make it do so with work hook if necessary, and knit about half way round. This moves carrier out of your way and you can press down remaining needles. **Whenever you stop knitting don't let yarn carrier move backwards**. The machine will **not** drop stitches if all these points are attended to, but if a stitch should be dropped, take off the weights, and pick it up immediately. Now proceed to knit slowly, holding work well down, and you should be able to knit any number of rounds of plain knitting without further trouble. Repeat the operation of setting up and practise up to this point till thoroughly mastered before proceeding further. You must assist the weights by pulling work down with left hand.

9. **Never Run Work off the Machine.**—When Stocking, or other garment, is finished knitting, knit two or three extra rounds for roving, break off yarn, thread machine with cotton and proceed exactly as directed in paragraph 8. Whole rows of garments can be knitted in this way and separated afterwards by cutting and roving the cotton. If work accidentally runs off through breaking of yarn, or other cause, rove two or three rounds so as to leave an even round of stitches, run a double thread of yarn through these (with darning needle) to prevent them slipping and place them on the needles again as follows:—

Have yarn carrier at front of machine, put stitches on about 40 needles at back, letting end of yarn hang at right hand side. (The stitches at first need only be **just inside the hooks** so as not to stretch them but when all are on the needles and ready to knit they must be pulled well down to cylinder top as usual). Raise these 40 needles out of action and move carrier to back of machine. Put stitches on remaining needles and raise these out of action. Bring carrier to front, thread with yarn or cotton through carrier (see paragraph 3) and join up to hanging end. Take up any slackness; press down 50 needles commencing with the **first after** that from which yarn hangs, and proceed to knit as directed in paragraph 8.

A little practice will give facility in thus putting work on machine, and it is worth acquiring as the stitches have to be placed on the machine in this way for re-footing.

Never Turn Handle when no work is on the machine as this Damages the Needle Latches.

Needles must be pulled well up, or pushed right down, when putting in or out of action; otherwise, they get damaged.

10. **Picking up Slipped Stitches.**—If a stitch slips off the needle from any cause it will generally, if the weights are on, run down through a number of rounds. The weights should be taken off immediately and the stitch picked up as follows:—

Take a spare cylinder needle and pass this down, hook end first, between the work and the cylinder, with the hook pointing inwards towards the work. Pass the left hand up inside the cylinder from underneath the machine, take hold of the work and bring the dropped stitch within reach of the needle hook, get the stitch on to the hook, being careful not to split the yarn, slide the needle through the stitch until the stitch is behind the latch, then turn the needle a quarter turn to the right, pull it slowly back until the latch stands out almost straight but not quite, the stitch still being behind it. Then work the latch up behind the yarn immediately above the stitch. This done proceed to draw the needle slowly back and the latch will take the yarn inside the hook, allowing the old stitch to slide over and thus forming the new one. Having now a new stitch inside the hook, slide the needle through the work again until the stitch is behind the latch, and repeat the whole operation until you get the stitch to the top, when it must be placed on its cylinder needle.

If the ribber is in use when the stitch slips off the cylinder needle, the ribber needles must first be taken out, as directed in the next paragraph, and the complete ribbing attachment removed.

Picking up rib stitches is done on the same principle, except that, of course, it is done from inside of the work instead of the outside. The whole of the ribber needles must be taken out of the dial and left hanging to their stitches outside the cylinder. The complete ribbing attachment can then be removed so as to allow free access to the work.

II. **To unravel work if necessary.** — Remove weights from knitting, and break the yarn just above the yarn carrier, and pull the stitches up gently into the hook of the needles, knit forward a little **without holding the work down** to free the yarn carrier from any yarn. Take hold of the end of the yarn and pull gently until you see the second row of stitches drawing on to the needles, continue this until you have unravelled as much as you want to, then thread machine and proceed to knit.

GENTLEMEN'S SOCKS—PLAIN,

WITH RIBBED TOP.

Make $4\frac{1}{2}$ inch Ribbed Top as directed in paragraph 20, then knit plain leg, as follows:—



Place all needles in cylinder, where left out for rib; transfer ribber stitches on to these as directed in paragraph 27; then knit a 10 inch leg, making $14\frac{1}{2}$ inches with ribbed top, and stop yarn carrier on the front or side of the machine next you. The work is measured by taking off the weights and placing a foot-rule inside the needle-cylinder. About ten rounds of the yarn carrier knits one inch, which varies according to tension, and yarn used.

12.—**Making Heel, First Part.**—Raise out of action, (this is done by raising the needles, until the heel of the needle rests against the spiral band) all needles on back of cylinder *marks*. (These are two little "red" marks on right and left and top of cylinder where the needles pass through, which indicate half of cylinder on top side of needle-cylinder). Place yarn under hook of take up *locks*, and then in heel-spring, by lifting it between the take-up-lock and front eye of yarn stand. Proceed to knit the heel as follows:—

Hold the work *well* down by hand **at the side on which you make heel**; then knit one course to the right, taking yarn carrier well round to back until "V" cam completely passes last needle in action; raise out of action the first needle down on the right, and knit one course to the left, again seeing that "V" cam clears last

needle : raise out of action the first needle down on the left, and so on. (After several rows have been knitted, you require to place the heel hooks in about $1\frac{1}{2}$ inches from top of cylinder in the centre of your work, continue raising one needle each course knitted, always raising same on the side on which yarn and yarn carrier is stopped, until all needles are raised except about 14 on the side of the machine next you. Then insert heel hooks close to last row knitted.

13.—**Making Heel, Second Part.**—Hold the first part of heel *well* down by heel hook, and proceed to put down needles—first needle on the same side as the yarn, **and lift yarn from front of needle to back**; then knit one course and put one needle down on the other side of machine on the same side of the yarn, and so on. Continue putting down one needle on the same side as yarn each course knitted, until all the needles are put down up to **one before** the half cylinder **mark** at each side.


Always put down last needle on the left side, and then knit forward the last course of heel until the yarn carrier stands on front or side of machine next you. Now put down all the needles which stand up on the back of the machine. See that all latches are down. Remove yarn from take-up-lock No. 8, and heel spring, then proceed to knit the foot $10\frac{1}{2}$ inches or as specially required, and stop yarn carrier on the front or side of machine next you as in making heel.

14.—**Knitting Toe.**—The first part is knitted the same as the heel, except that the needles are raised for the first half until only 12 or 14 needles are left down; then for the second part of toe, the needles are put down, one each course knitted, the same as in knitting heel, until all the needles are put down right up to cylinder half *marks*.

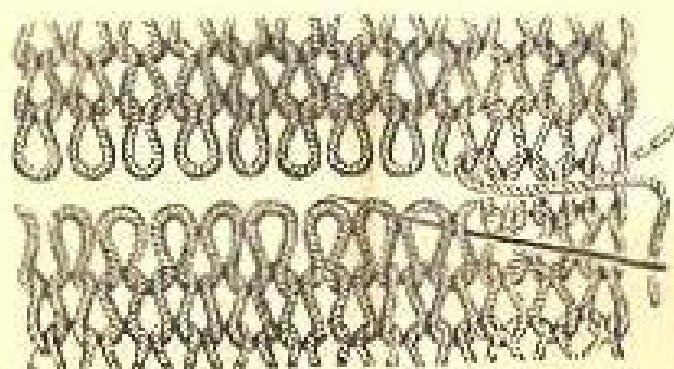
The last needle in toe, the same as in the heel, should be put down on the left side, and the last course of toe knitted forward until the yarn carrier stands on the front or side of the machine next you; then all needles are

put down, and three rounds knitted (*which are used for closing the toe*); then break off the yarn, tie on cotton thread to separate this garment from the next you knit, and the sock is finished. Cut and unravel the white cotton to separate the garments. (See par. 15 for taking up the toe). *Whole rows of garments can be knitted and separated by thread to be cut afterwards.*

In Plain Knitting always taper socks, stockings and bicycle hose at the ankle by raising tension can NOT very gradually.

15.—  **Press the Toe Under a Damp Cloth** so that the stitches can be neatly taken up at the opening with a small bit unravelled there for the purpose. **All goods should be pressed and bundled in one dozen lots, and tied with tape at each end before sending them in.**

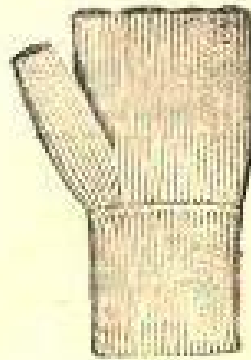
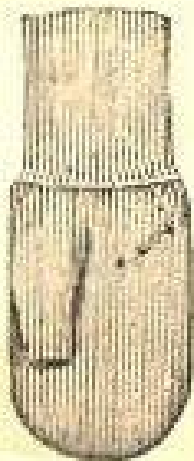
How to Link or take up the Stitches of Toe- by hand.—Each stitch has the needle passed through it twice, thus: put the needle *in* through the first stitch and *out* through the next one on the same side then put the needle *in* through the first stitch and *out* through the next one on the other side, then put the needle *in* through the stitch you brought the needle *out* of the first side and out the next stitch on the same side, and so on (as illustrated below), until the opening is closed, then press.



16.— **Hem Top Stocking.**—A hem top stocking can be made as follows: Commence with stitches on all needles and knit about 20 rounds with medium loose tension, then turn the work up on the inside of the

cylinder, and place the stitches of lower part of hem on the needles, then proceed to knit leg, &c., same as gentlemen's socks.

Bicycle hose hem is made in the same manner, only six inches long, and turned down to show the stripes.



17—**Knitting a Mit.**—A mit can be made with rib top the same as a sock, or with a long hem for a double cuff. *in either case about one inch plain should be knitted after the ribbed part of cuff is formed before commencing the thumb.*

18.—**Knitting Thumb.**—Raise all needles out of action except about 22; then knit about 40 rounds flat web backwards and forwards on the 22 needles, holding the work well down by hand; then break off the yarn, and run the work off the 22 needles. Now lift from each selvedge edge stitches on 12 needles on corresponding sides, being careful that there are no holes at the junction of thumb and hand. Place in yarn again, put down needles on right and commence to knit, and put down all needles and knit the hand, about 40 rounds, finishing mit the same as toe of sock.

CHILD'S SOCK MADE ON THE FLAT WEB PLAN.

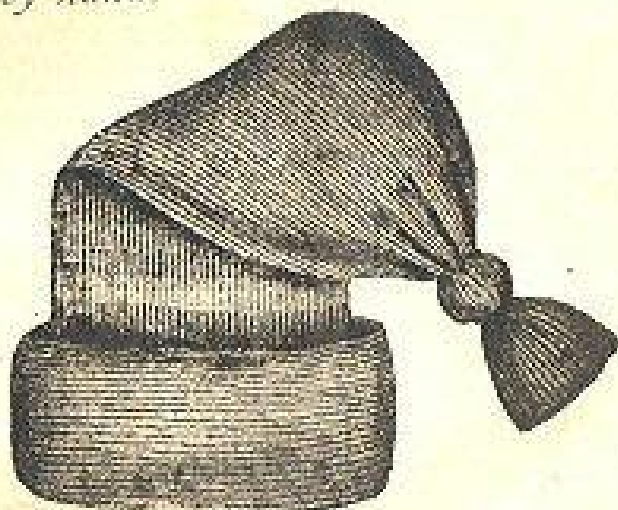
19.—**The Top.**—All cylinder needles in with the exception of 24 at the back, and proceed to knit the sock the same as you would for the heel of a sock, by knitting backwards and forwards. Cast on selvedge same as instructed in paragraph 8; press needles into action, and knit one row, *raise out of action the first needle on the left hand side of machine, and every fourth from the first needle you raised. Hold the work well down, and knit three rows, press into action all needles that are raised, and knit two rows, raise the third needle from the end on the left hand side of machine, and every fourth from the third needle raised, knit 3 rows, then press needles into action, and knit 2 rounds. Knit from* once more to complete top of sock, continue the leg by knitting plain to the length required, finishing by knitting to the left.

Heel and Toe.—Are knitted in halves, raise out of action all needles until only twelve needles are left down on the left hand side of machine, knit to the right, raise the needle nearest to you out of action, knit to left and right again, and raise another needle nearest you, and continue until you have only three needles left, press into action the first needle that is raised, lift yarn from front of needle to back, knit backwards and forwards once, and press into action another needle, and so on till you have eleven needles in action. Press all needles into action, and do the second half of heel on the right hand side of machine by raising all needles but twelve and repeat as instructed.

20. **Directions for Knitting Toques.**—Start with tension as loose as possible, and knit 14 inches, then run in four rounds colours, then four rounds plain, then four rounds colours again, then continue 16 inches to point of toque, tightening the tension towards point of toque only; close the end of toque same as toe of sock or leave off at 14 needles, and put a draw cord in the top, and at

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end of cord put on tassel or ball. *The small cord can be made by knitting backwards and forwards on four needles, or crocheted by hand.*



We think the foregoing instructions, which we have endeavoured to make as concise as possible, consistent with their being intelligible, will enable you to readily master any difficulty that you may imagine exists in executing the work.

21. **When your samples are made, send them to us by post, in a strong wrapper, with postage for answer and return of samples, and your full name and address inside. These rules must be observed to avoid confusion, because we receive so many parcels at one time.**

22. **Always enclose postage in your letter and parcel if you wish for a reply.**

Everything is fully explained in the instructions, and we send the kind of yarn that will stand unravelling and knitting over and over again, so that if you do not at first succeed, unravel your work and knit over again until you get the sample right.

Do not send in your sample until it is well made.—By doing this you will save time and postage for yourself.

As you may observe, the machine does perfect work, and if you study it thoroughly you can learn to turn out satisfactory work.

It is best to master plain knitting before undertaking to work the Ribber attachment.

Instructions for Working Ribber

BE PATIENT, STUDY MACHINE AND
INSTRUCTIONS CAREFULLY.

**YOU SHOULD LEARN PLAIN KNITTING FIRST,
THEN THE RIBBER.**

23. **Adjusting Ribber.**—Remove all needles from ribber-dial, place the ribber-arm in hole in cam-cylinder with the dial over centre of machine, and **press it down to place.** Correct height for dial is that the ribber-needles just pass under Yarn Guide, without touching it. The dial is raised or lowered by means of ribber-arm screw, No. 24. This is only moved when changing from fine or coarse yarns to allow more or less space for the work to pass down. Turn dial-plate round to right until the lock in bottom of dial rests against the lock on the inside of needle-cylinder, where it should rest in working, and, keeping dial in this position, turn tappet plate back in opposite direction, until Timing Screw, No. 26, touches Driving Pin, No. 21. Then place the needles in the dial with the latches open.

24. **Regulating Dial Needles.**—The ribber-needles are regulated centrally with cylinder-needles by means of dial adjuster, No. 25, on left and bottom of bed-plate. Unscrew the wing nut underneath, and move dial adjuster to right or left as required, then tighten wing nut up again.

25. **Regulating Ribbon Tension.**—For a long loose stitch and coarse yarn, unfasten the ribber tension screw No. 27, move pointer towards the centre of dial. For a short tight stitch and fine yarn move pointer outwards and secure firmly again with screw.

26. The Timing Screw No. 26 (see inside back cover) is adjusted and set before leaving the works, and must not be altered unless it has worked loose through vibration in transit. It times the ribber (dial) needles so

Paragraph 25.—Regulating Ribbon Tension, should read
Regulating RIBBER Tension.

that they take their stitch just at the same time as the cylinder needles. If its adjustment has been disturbed, work the machine slowly, watching the dial needles to see what is taking place. If the dial needle is too "late" the yarn gets behind the latch and slides off, closing the latch without making a stitch; if too "soon" it gets back without the yarn getting on at all; in either case it drops its stitch. To rectify this turn timing screw slightly to the left if too late and vice versa. When correctly set hold with screw-driver and tighten up the lock-nut.

27. — **Transferring from Plain to Rib.**—Stop yarn carrier at left side, put ribber-needles in dial-grooves with latches open, take a spare needle and with it take stitch off plain needle, put into hook of ribber-needle, see that stitch keeps in hook, proceed to knit forward to put in other ribber needles.

Transferring from Rib to Plain.—Put in plain needle where left out for rib, take a spare needle, with its hook pull out ribber-needle far enough for stitch & pass off ~~latch~~ transfer the stitch on to plain needle.

28. **Transferring stitches from cylinder to ribber needles** is greatly facilitated by removing the clasp ring. Raise cylinder needle until stitch is below latch; hook into ribber needle (which must have its latch open) and slide stitch on to it.

GENTLEMEN'S SOCKS—RIBBED.

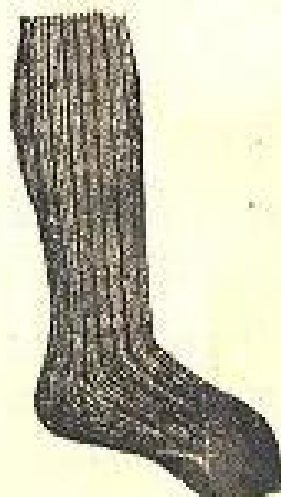
29. Have work on all cylinder needles, adjust ribber (see paragraph 23) transfer every second plain stitch to every ribber needle to make one and one rib, form welt for which you will find instructions on inside back cover, knit $4\frac{1}{2}$ inches, then transfer every other rib-needle stitch to plain needle to make three and one rib, knit 14 inches in all, stop carrier at back, take ~~ten~~ ribbing needles out at front of dial, transfer stitches to plain needles, **knit 6 rows**, bring carrier round to front, take out driving-pin from ribber-arm (this prevents ribber-needles making stitches when doing heel). Raise out of action all needles at back. Proceed to knit heel as described for plain sock. Stop carrier in front to put

down back needles, insert driving pin, work six or seven rounds, then put in at each side one rib needle; do length of foot required, stop carrier in front, transfer all rib-stitches to plain needles, take off ribber, knit toe, work three rounds, break yarn for another sock as in plain knitting.

LADIES' RIBBED HOSE.

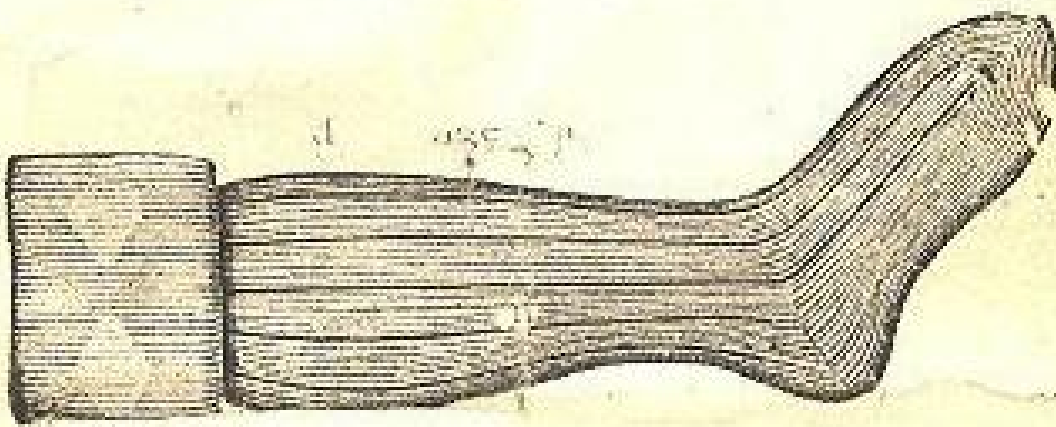
30. Have work on all cylinder needles, cast on selvedge, (if hem top preferred see paragraph 16) knit partly round, stop carrier at left; place the ribber on, regulate dial grooves centrally between machine needles (for four and one rib). Place every other rib-needle in dial, commencing at right, knit five or six rounds with tight tension on machine, loosen tension and knit 12 inches or more, as required.

Narrowing Ankle.—Lift out two needles directly in front of machine on the left of rib-needle, place the stitch in of the second needle on the third, place the first needle in the second groove, leaving an empty groove in front of dial needle. Knit six rows, narrow once on each side of first narrowing, and so all round the machine; after the last narrowing is made, regulate rib needles centrally with plain needles, knit 45 rounds for ankle. Knit heel, foot, and toe same as gentlemen's sock.



31.—**Bicycle or Golf Hose with Feet** are made continuously with one setting up, as heretofore described. After setting up is complete, knit three inches; then run stripe in top of hose alternately for about six inches with four or six rounds of each colour, then three inch plain and take up hem (see 16), and knit the usual length for bicycle hose, which should be about 24 to 28 inches to the centre heel, measuring without pulling down the work, otherwise about two inches more must be allowed.

BICYCLE HOSE.



To Knit Cord.—Take out of the machine all but four needles. Set up and attach the heel hook and the light weight. Knit across, put the needles up as high as they will go, place the thread inside the needles and run back; put the needles down so they will knit, and knit across as before; then run back again and so continue knitting one way and running back with the needles up and the yarn inside the needles.

PRICES OF PARTS.

	s.	d.		s.	d.
1 Clamp Screw.....	0	8	19 Needle Cylinder.....	20	0
2 Needles 2d. each, or doz.	1	6	20 Clasp Ring.....	1	6
3 Crank Wheel.....	9	6	21 Driving Pin.....	0	6
4 Cylinder Tension Nut	1	0	22 Dial Tappet Plate... (25	0
5 Heel Spring.....	0	10	23 Ribber Arm.....	1	0
6 Bobbin.....	1	0	24 Ribber Arm Screw....	0	2
7 Yarn Stand Top.....	2	0	25 Dial Adjuster-Thumb Plate.....	0	9
8 Take-up Lock.....	0	5	26 Timing Screw.....	0	2
9 Yarn Carrier.....	3	0	27 Ribber Tension Screw	0	8
10 Tension Cam for Cyl- inder Needles.....	3	6	28 Switch Pin for putting Ribber Needles in and out of action....	0	3
11 Cam Cylinder or Shell	20	0	29 Weight Holder.....	2	6
12 Bedplate.....	22	0	30 Weights.....	1	0
13 Gear Ring.....	9	0	31 Counter or Indicator	3	6
14 Yarn Stand Rod.....	1	0	32 Buckle.....	0	9
15 Cylinder Tension Cam Spring.....	0	8	33 Uphrow Springs per pair.....	0	6
16 Crank Wheel, Stud & Nut.....	1	6	34 Ribber Tension Spring	0	3
17 Crank Wheel, Handle	0	7	35 Winder.....	7	6
18 Crank Wheel, Handle Pin.....	0	7	36 Swift.....	1	0
			37 Centre Stud for Dial	1	6

Work Hook ... 6d.


Uphrow Pointers

Heel Hook ... 1/-

... 1/- each.

Postage or Carriage must be added in addition to above prices.

The above prices are for parts carelessly broken whilst practising, or new ones required.

 When returning Machines or parts for Repairs place your Name and Address on the parcel, as well as inside, or we may not know whom it is from.

When ordering Needles send Sample. This will save time and enable anyone in our office to fill your orders promptly and correctly.

FANCY STITCHES.

Tidy Stitches.—Set up flat web of required width ; knit once across, change the stitch from the second needle to the third, the fourth to the fifth, and so on across ; moving to the left knit across, forming loops on the empty needles, knit back again forming stitches with these loops ; put the stitch from the second needle over the first, that of the fourth over the third, moving the stitches to the right, knit across and back as before, change the stitches to the left and continue.

Chevron Stitch.—Set up flat web on every needle for the desired width ; knit once across, put the stitch from each alternate needle upon the next needle to the right, knit once across and change the loops one needle to the right ; work thus twelve times across and change the loops to the left twelve times, knitting across each time as before. For wider work, knit more than twelve times across before changing ; for narrower, less. This makes a suitable trimming for children's garments, etc.

Lattice Stitch.—~~Set up flat web on every needle for the desired width ;~~ knit once across as before by taking the stitch from every other needle and putting them over the next to the left, knit once across forming loops, move the loops to the next needle to the right, knit across, and carry the loops to the left, knit across and carry the loops to the right, and so on to the length desired.

Ribbed Stitch.—Set up and knit once across, change the stitches on every third needle one place to the left, knit across, carry each loop both to the right and left over two needles, knit across, take the loop formed on the same idle needles and carry them both right and left as before ; continue thus.

Bar and Diamond Stitch.—Set up, knit across, change every alternate stitch to the left, knit across, forming loops, and back forming stitches on the empty needles ; change the stitches formed with the loops to the right. Knit twice across as before and change to the left and so continue. When knitting fancy stitches the tension should be loose.

Chevron Stitch or Bar and Diamond Stitch are suitable for scarfs.

MEMORANDA.

Cylinder needles to ribber needles
 cam out of action in ribber for
 three rows. Put cam into action
 again 55 rows of ribbing then
 transfer from ribber needles to
 cylinder be sure latches are
 open 80 rows of plain to heel.
 heel lift all back half needles up
 then commence knitting backwards and f
 forwards lifting one needle up every
 time till there are sixteen needles
 left down then put in heel wires
 and weight then commence by putting
 one down each side then bring machine
 to middle and put all needles down
 watch latches. Between 55 and 70 rows
for a foot toe exactly the same as for
 heel then 6 rows. See that ribber base
 is right against the adjustable post
 then transfer **R** needles to R needles.
 Run a thread to divide socks.
 With cam in do one row after you
 transfer to ribber needles when cotton
 is in to make a good edge.
 Cam out is equal to circular row
 in flat machine.

THE NEW SELVEDGE TAPPET.

Our Machines are now fitted with an Improved Selvedge Tappet, which enables the worker to make Selvedge tops on Hosiery quicker and easier. Instructions for same are given below.

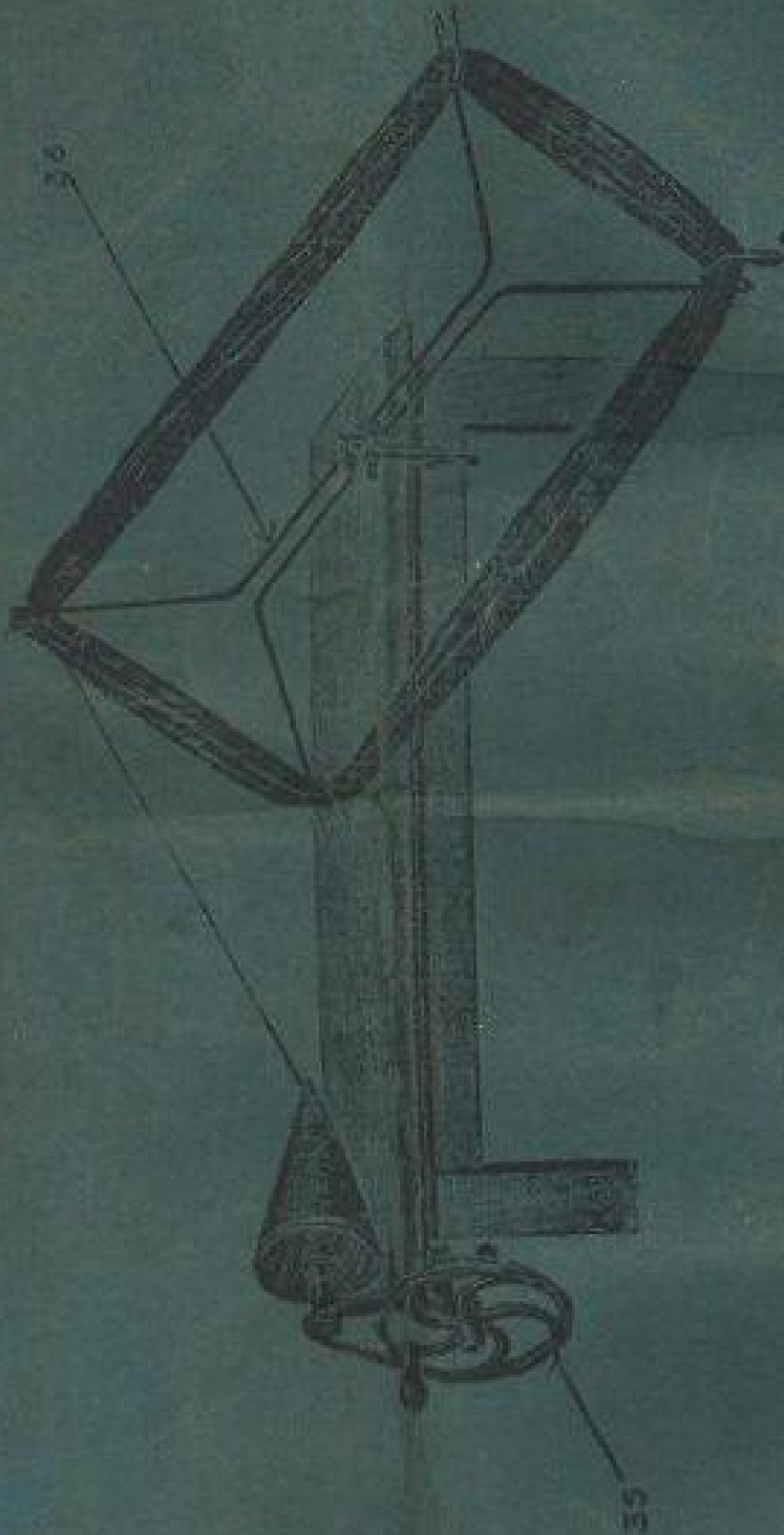


IMPORTANT.—The above illustration shows the Switch pin *between* the two positions. It was engraved thus to show the "out" and "in" clearly, but should never be in this position. It should always be either in the "out" or the "in" groove.

GENTLEMEN'S SOCKS.

Have work on every other needle in cylinder, adjust Ribber (see paragraphs 23 and 24), place every needle in dial and proceed to knit a few rounds, then break yarn and tie on thread, knit three or four rounds and stop carrier at front of Machine; tie on wool and knit one round, then put Ribber needles out of action (this is done by moving switch pin to the *out* position). Knit three rounds, holding work down well by hand, then put ribber in action again and knit 4 inches, then transfer every alternate rib-needle stitch to plain needle to make three and one rib, knit 4 inches in all, stop carrier at back, take ~~the~~ ribbing needles out in front of dial, transfer stitches to plain needles, bring carrier round to front, take out driving pin (this prevents Ribber needles making stitches when doing heel). Raise out of action all needles at back. Proceed to knit heel as described for plain sock. Stop carrier at front to put down back needles, insert driving pin, take off heel spring, work six or seven rounds, then put in at each side one rib needle; do length of foot required, stop carrier at front of machine and knit toe exactly as heel, taking out the rib needle on each side. Stop carrier at front and transfer every other plain stitch to rib needle to make one and one rib, knit a few rounds and tie on thread to commence another sock.

W. H. P. Co. Patented 1904



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