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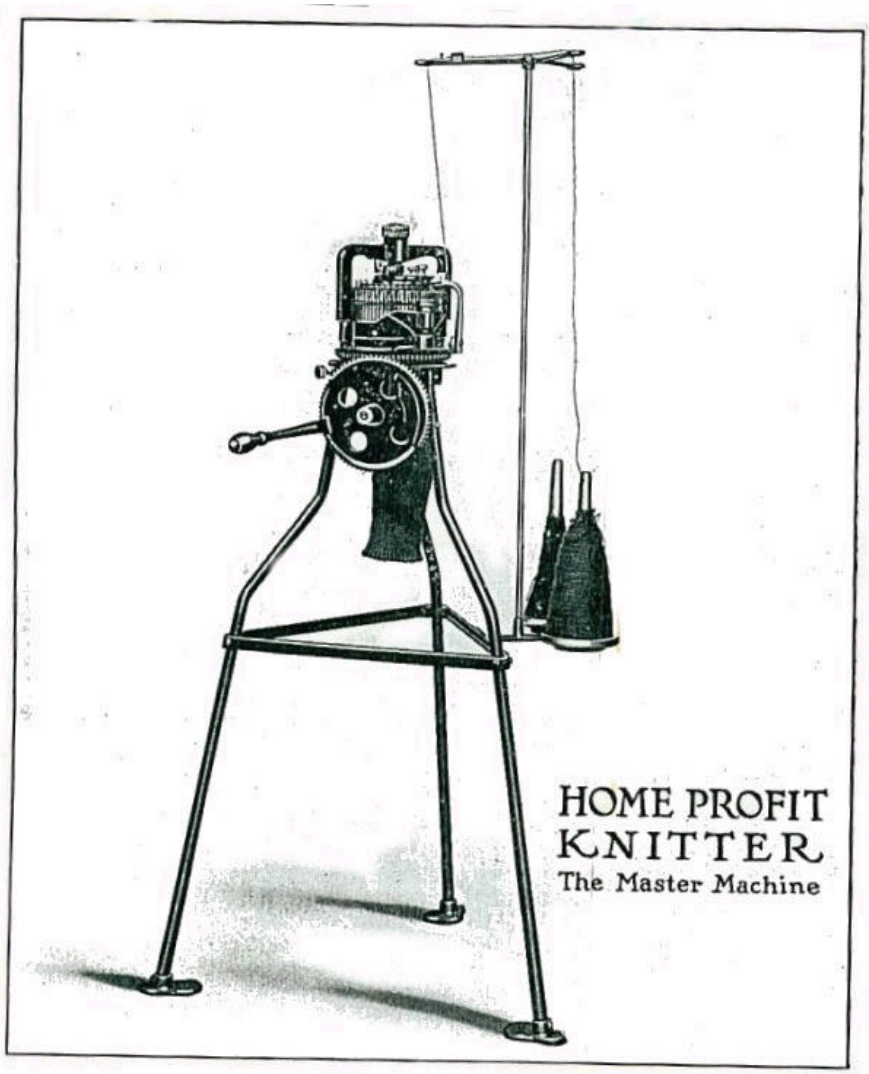

New Method Instruction Book

For The Master Machine

1922 3rd edition

SUCCESSFUL OPERATION of the Home Profit Knitter depends upon a thorough understanding of the instructions laid down in this book. The things that may seem intricate to you at first will be easy if you study this instruction book and observe carefully the illustrations. Every picture means something. We are making your pathway easy by giving you an instruction book that is clearly and simply written and profusely illustrated.

The Home Profit Knitter has been designed and built to produce maximum knitting results. No cheap material or poor workmanship is put into the machine, but, on the other hand, the finest of semi-steel or aluminum castings, very accurately machined, are used. The Home Profit Knitter is the Peer of all hand knitting machines. Its ease of operation, its positive control and the even and uniform knitting produced make it "The Master Machine Of All Knitters."

This instruction book embodies the last word in the art of knitting.
We have spent thousands of dollars to produce this book. It is the royal road to success if you will but follow.

You have no great task ahead of you in learning to operate this machine.
Should you buy an automobile or a typewriter, or in fact any kind of machine, you will be unusually fortunate if you make no mistakes the first time you try to operate them. The same holds true in learning to operate the Home Profit Knitter. You will make mistakes but let every mistake be your stepping stone to success.

Ours is the spirit of co-operation. Our Service Department is anxious at all times to give you helpful suggestions and no matter how often you write, you will receive a prompt and courteous reply.

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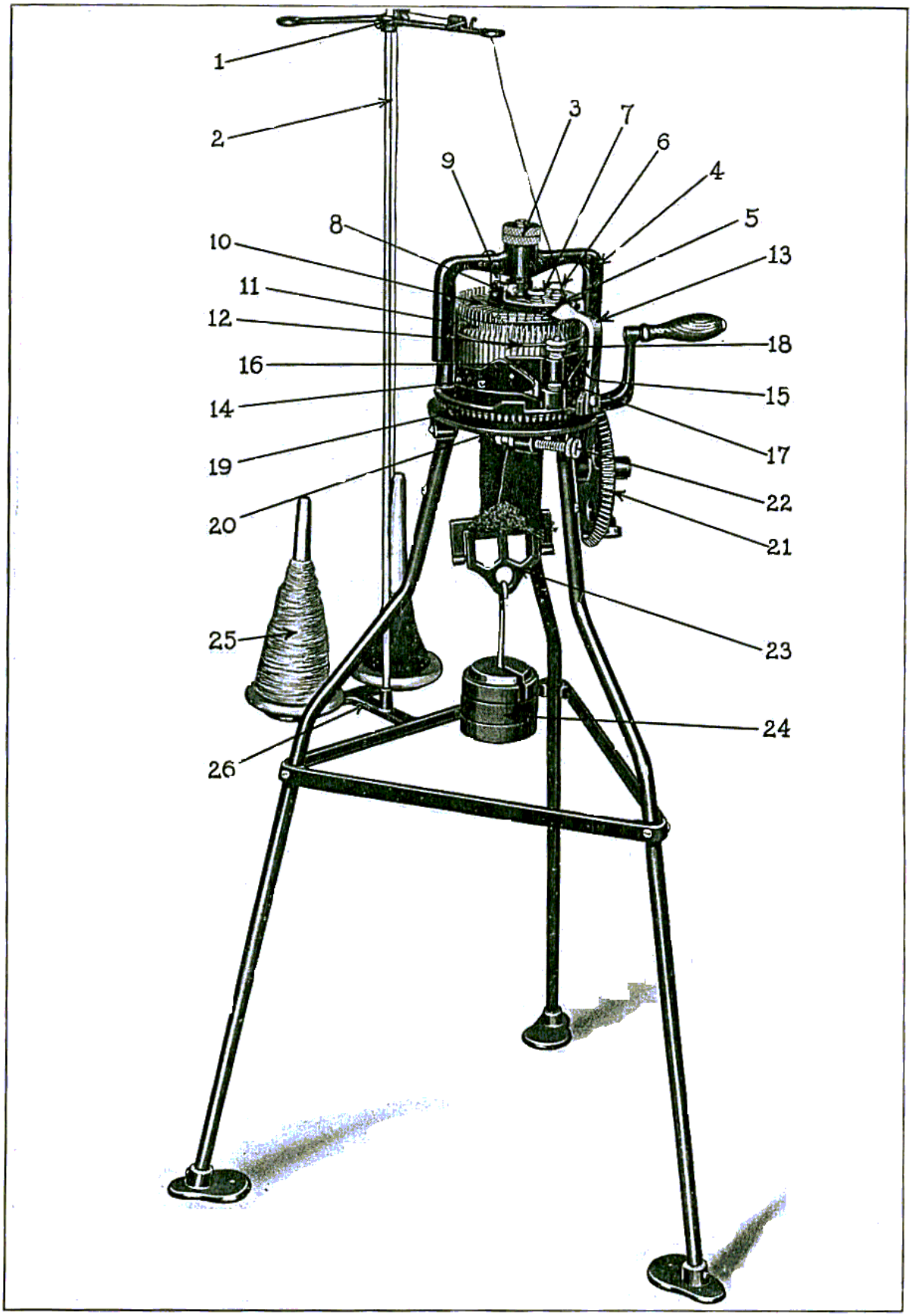
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Description of Machine Parts

Your success in learning quickly to operate the Home Profit Knitter depends largely upon your understanding, of the different parts of the machine and the work performed by each in knitting a sock.

I YARN STAND TOP I Upright rod and top
2 YARN STAND ROD1 through which the yarn is threaded.

3 DIAL ADJUSTER NUT-Raises or lowers the dial according to the direction in which the nut is turned.

4 CONTROL ARM-A support for the control plate and dial.

5 CONTROL PLATE-A plate containing certain cams, on the under side, that control the action of the dial needles.

6 SHIFT LEVER-Throws dial needles in and out of action.

7 DIAL TENSION NUT-Regulates length of dial needle stitch.

8 TIMING SCREW-Times the dial needles so that their latches close with latches of cylinder needles.

9 DRIVING PIN-Drives the control plate around the dial and thus works the dial needles.

10 DIAL :NEEDLES-The small needles that form the inside rib stitch of the sock.

11 CYLINDER NEEDLES-The large needles that form the outside rib stitch of the sock and are used in plain knitting.

12 CLASP SPRING RING-Holds needles close to cylinder.

13 YARN GUIDE-A small arm fastened to the bevel gear ring and controlling the yarn passing to the needles.

14 JACKET-Fits on the bevel gear ring and is the container of the grooves and cams that operate the cylinder needles; also indicates position of left up-throw cam.

15 RIGHT UP-THROW CAM-Located inside the jacket and raises the cylinder needles to form the stitch.

16 'MASTER CAM -Prevents cylinder needles from rising too high; also controls length of cylinder needle stitch.

17 MASTER CAM TENSION SPRING Holds needles in cylinder grooves.

18 CYLINDER TENSION NUT-Regulates length of cylinder needle stitch.

19 BEVEL GEAR RING-Rests directly on the base plate and is operated by the crank wheel. It furnishes motive power to the machine.

20 BASE PLATE-As the name implies, is the base of the machine and is a support for all other parts.

21 CRANK WHEEL-Furnishes power for machine.

22 DIAL SLOT ADJUSTER-'-\ loves dial to right or left, bringing needle grooves in dial opposite needle grooves in cylinder.

23 BUCKLE-Clamps on to sock and holds weights.

24 WEIGHTS-To hold down work.

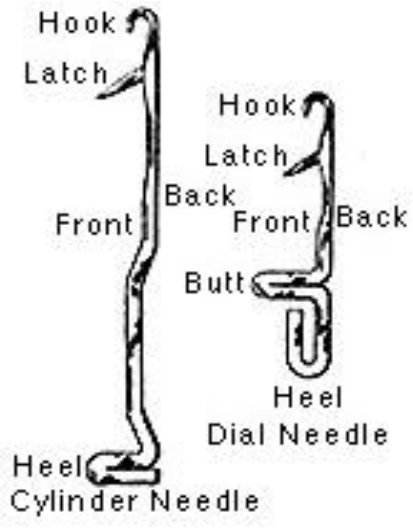
25 BOBBIN-Wooden container for yarn.

26 BOBBIN BRACKET-Bobbin holder.

Action of the Needles and the Parts That Control Them

THERE are two kinds of needles used in the hand knitting machine; the cylinder, or long needles, and the dial, or short needles. The cylinder needles form the outside stitches in knitting a ribbed sock and the dial needles form the inside stitches. The cylinder needles will knit without the dial needles, but the dial needles will not knit without the cylinder needles.

If you carefully observe the needles you will note that they are little steel fingers which, in operation, grasp the yarn, fed to them by the yarn guide-No. 13-and, by certain downward or inward motions,



form the stitches by drawing the thread through loops that have been previously formed.

The bottom of the needle is called the heel; the long slender body is called the shank; the movable insert is called the latch and the crook that terminates in a sharp point is called the hook.

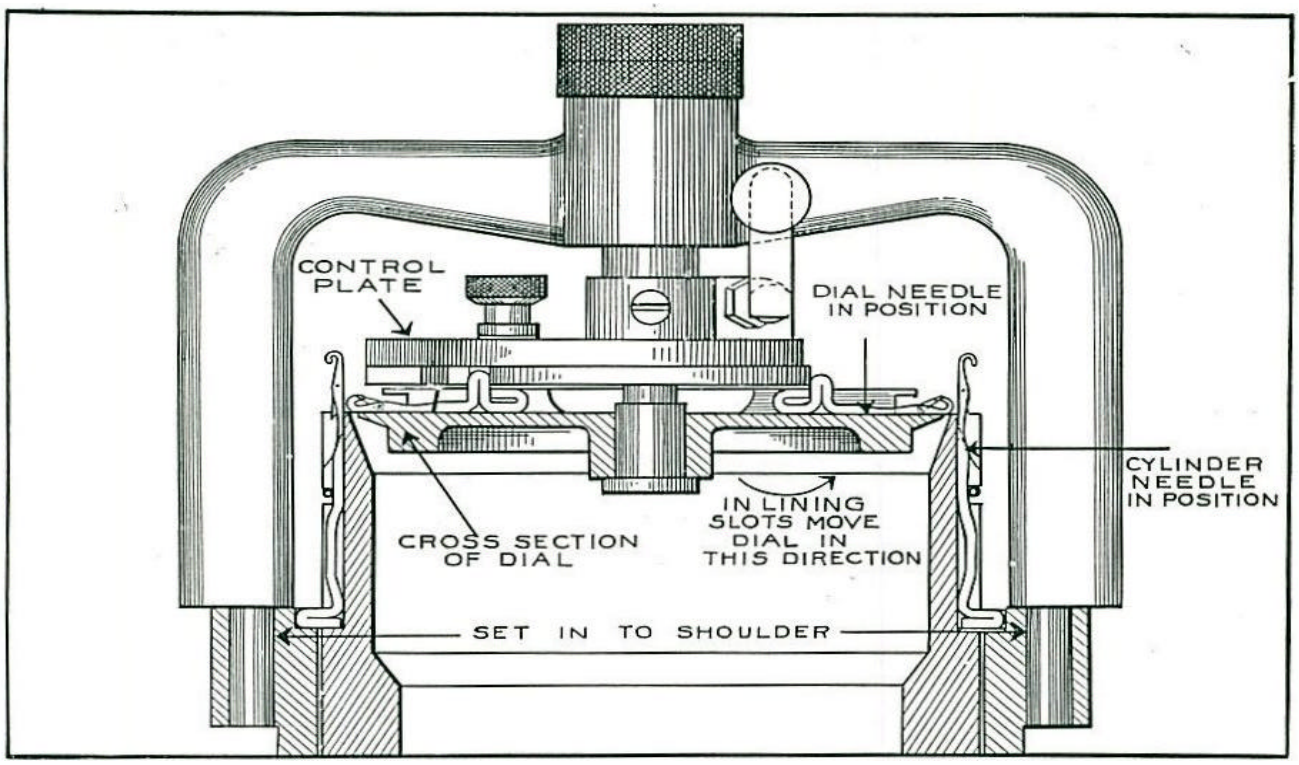
In inserting the long needles into the cylinder grooves, first draw out the clasp spring ring-No. 12-with your work hook and then insert the needle in the groove, heel down and hook projecting outward. After inserting this needle raise it just enough so that the wide part of the shank comes under the clasp spring ring. This will then hold the clasp spring ring out so that the next needle can be inserted without the aid of the work hook.

`When inserting the dial needles in the grooves of the dial, merely slip them in with the heel of the needle toward the center of the dial and the hook extending outward and upward. In putting in needles always be sure that the latches are open-that is-lying back against the shank of the needle.

Examine your needles occasionally for bent or broken latches; bent latches may be straightened. Broken needles must be replaced. Sometimes the needle latches fail to work freely. This is caused by bent latches or lack of oil. *The needles should always be kept well oiled* by putting a plentiful supply on the cylinder and dial. Oil will not harm woolen yarn, for it contains a certain amount of oil.

Control Arm-Dial Attachment

These attachments must be used in knitting a ribbed



THE control arm and dial attachment, as shown in the illustration, are assembled ready to put on the machine except that the dial needles must be removed when the attachment is placed in working position. (Always insert dial needles after the control arm and dial have been set.)

These particular parts are referred to as the ribber attachment and in connection with the cylinder knit the ribbed stitch.

The cylinder alone knits a plain stitch and is used in knitting "a plain sock." In order to knit a ribbed stitch-the most popular stitch of all kinds of knitting-it is necessary to provide a second set of needles that work in unison with the cylinder needles. This is just the purpose of the dial needles.

To make these dial needles work in unison with the cylinder needles a certain number of mechanical parts are required. The first and most important of these is the dial.

The dial is a hard metal casting with the grooves cut in. In these grooves the dial needles operated by the cams in the control plate work back and forth. The dial does not turn when knitting and has only two adjustments. One of these is up and *down*, controlled by the dial adjuster nut-No. 3-and the other to the *right* and *left*, controlled by the dial slot adjuster-No. 22.

The first adjustment provides for the different sizes of yarn and the second lines the needle slots of the dial with those of the cylinder in order that the transferred stitches will work freely without pulling and binding.

Another important mechanical part of the ribber attachment is the control plate which rests immediately on top of the dial and is fastened to the control arm. The control plate travels around the top of the dial and contains all the cams which control the dial needles. If you were to observe the underside of the plate you would see the cams arranged in such a way that certain channels or grooves are formed through which pass the heel of the dial needles when the control plate turns. These grooves have been scientifically adjusted in order to force the needle out at the proper time to take the stitch. These grooves can be either widened or narrowed by turning dial tension nut-No. 7-on the control plate and moving the pointer one way or the other.

When this groove is widened by moving pointer out the dial needles make a *shorter* stitch and when this groove is *narrowed* be-moving the pointer *in* the dial needles make a *longer* stitch. When adjusting the tension of the stitch it will also be necessary for you to adjust the timing of the needles as the first adjustment will throw the timing out of order. Thumb screw-No.6- on the control plate is use in switching the dial needles in and out of action. When the shift lever No. 6-is pushed *in* the dial needles do not come out to take a stitch from the cylinder needle and when shift lever No. 6-is pushed out the dial needles reach *out* to the cylinder needle for their stitch. The action of this cam is positive when properly set either in or out.

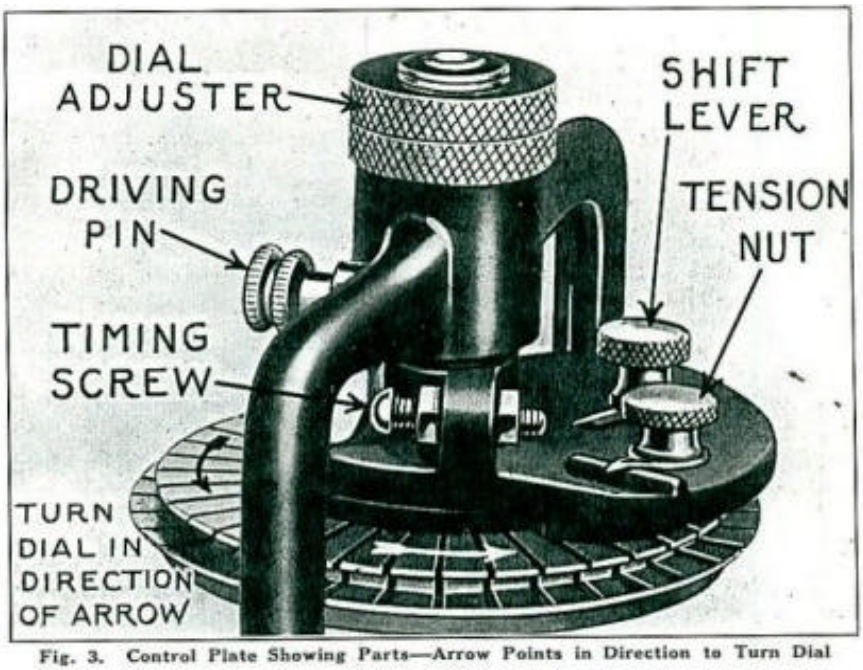


Fig. 3. Control Plate Showing Parts—Arrow Points in Direction to Turn Dial

The driving pin- No. 9-has a special purpose. That purpose is to drive the control plate around top of the cylinder and the only time that this pin is released when operating the machine is when making a heel or toe. This allows the machine to be turned in either direction, that is back and forth.

The control arm-No. 4--is the support for the entire ribber attachment and extends over the cylinder. It is inserted in two sockets` in the jacket, one on either side of the machine.

The timing device-No. 8-is another important mechanical part of the ribber attachment. The purpose of this is to synchronize the action of the dial and cylinder needles, that is, time them so that the latches close at the same time. In order to do perfect knitting it is necessary to have perfect timing. If the dial needles are timed either too slow or too fast the needles drop stitches. The correct timing of the needles is obtained when the latch of the dial needle and the latch of the cylinder needle just making the stitch, close at the same time, or as nearly the same time, as it is possible to get them.

Fig. 4. match spots in putting on dial

The action of the cylinder needles is controlled by the right-No. 15 and left No. 14-up-throw cams in the jacket on either side of the master cam-No. 16. In operating the machine you will observe that the cylinder does not move and that the needles, therefore, have a fired position except that they move up and down. The jacket, operated by the bevel gear ring-No. 19-moves around the cylinder, and the right and left up-throw cams, moving with the jacket, operate the needles. The up throw cams are so constructed that they force themselves underneath the heel of the needles and thus raise the needles, one by one, carrying them high enough so the needle hook just passes over the eye of the arm guide-No. 13. The needle thus takes its stitch as it begins to descend under the end of the master cam.

The master cam, located on the tension nut stud between the right and left up-throw cams, controls the downward stroke of the needles. In the absence of this cam the needles would have nothing to force them downward.

The master cam also controls the tension of the cylinder stitch. By turning tension nut No. 18 *down* on the stud a longer stitch will be formed because the master cam is then forced downward drawing the needle further. By turning tension nut No. 18 *up* on the stud a shorter stitch will be formed.

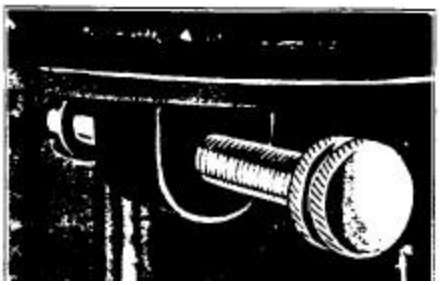


Fig. 5. Turn screw to line dial slots with slots in cylinder

In learning to operate the machine you may be troubled by its locking so that you are unable to turn the handle. This is caused by the heel of the needle getting under the right up-throw No. 15. To correct this just raise out of action eight needles to the right of the cam. turn the crank until the left up-throw cam passes the raised needles and then push the needles down.

Four Mechanical Adjustments

These are the important and usually, the only adjustments required to set the machine for perfect knitting should any, of the adjustments be disturbed in shipping.

On the Home Profit Knitter there are only four important mechanical adjustments.

1-Height of Yam Guide,
2-Height of Dial.
3-Tension for Cylinder Stitch and Dial Stitch.
4-Timing.

When the operator becomes familiar with these four adjustments he will get perfect work from the machine at all times. It is well to study these adjustments in order to become perfectly familiar with the machine.

HEIGHT OF YARN GUIDE

This first one is very simple, for if the yarn guide is not set at the proper height the machine will drop stitches. There are two ways in which the proper height is indicated. First. on the right hand side of the lower end of the yarn guide you will observe a small notch. This notch should line with a similar notch in the yarn guide socket. Second, if the above setting does not produce perfect work, turn the crank slowly and see that the end of the hook of the cylinder needle directly in front of the thread eve in the yarn guide just passes over the top of the eye.

HEIGHT OF DIAL

The height of the dial is governed by the size of yarn being used. If the work on the machine is crowding up on the needles at the point where the dial adjuster is located in the cylinder this indicate, that the dial is too low. If it cylinder too high the yarn wide will hit the dial needles when they come out of their knitting position. To regulate the height of the dial turn dial adjuster nut-No. 3-using the dial gauge to determine the proper height.

Tension for Cylinder Stitch and Dial Stitch

In getting the proper tension for your cylinder stitch turn tension nut-No18;. By turning this nut up on the stud the stitch will he tightened or shortened ; by turning it *down* on the stud the stitch will be lengthened or made loose.

It is important to remember that in altering the tension of the cylinder stitch the tension of the dial stitch must also be altered because the two must be of the same length. In altering the tension of the dial stitch to correspond with the cylinder stitch, loosen tension nut-No. 7-and move the pointer in to lengthen the stitch and out to shorten the stitch. Be sure to tighten the nut when making the change. These change: in the tension of the stitches may throw the timing off. (See timing below.)

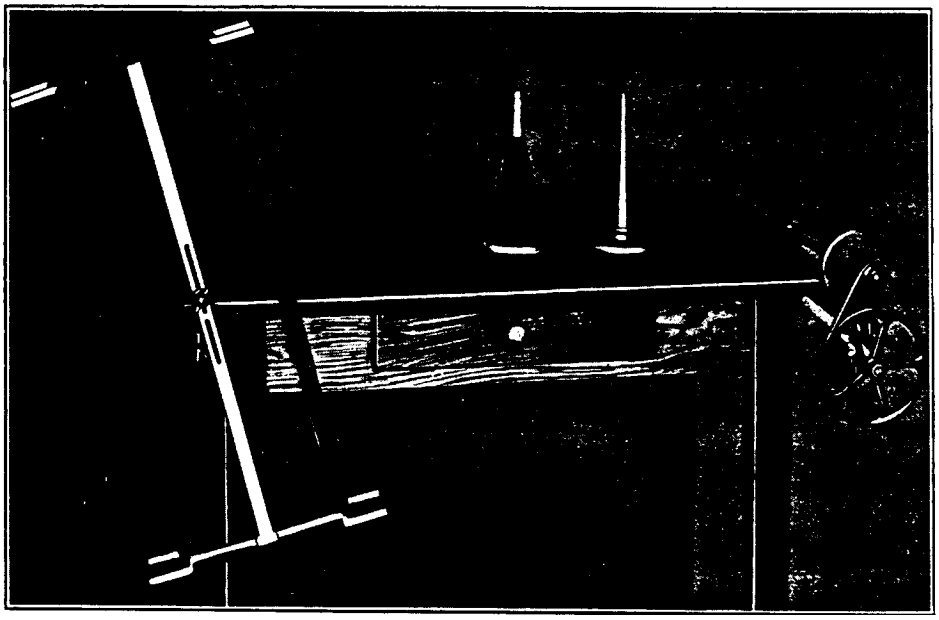
TIMING

If the machine is dropping stitches badly this indicates that it is not properly timed. The .timing of the machine is effected by chances in the tension of the stitch by raising or lowering the dial.

To properly time the needles, first observe the cylinder and dial needles at work when slowly turning the crank. If the timing is correct note that the latches of the dial and cylinder needles just forming the stitches close at the same moment, or almost at the same moment. If they are not thus closing, the timing is wrong. To correct this condition follow these instructions carefully.

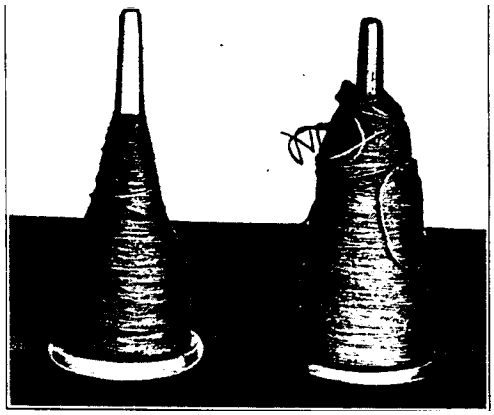
First, the cylinder needles are always in perfect time and only the dial needles can he out of time. Therefore the only needles that need timing are the dial needle. To do this loosen lock nut on the front end opposite the head of the screw on timer. No. 8. Turn the screw slightly to the right to make timing slower and slightly to the left to make timing faster. When doing this observe the action of the needle latches while making their stitches. Whey these latches close in unison the timing is correct Tighten the lock nut before proceeding to work. No two machines work exactly the same. Machines, like human beings, have an individuality of their own. Some machines will work better if they are timed so that the dial needles close just a fraction ahead of the cylinder needle.

THE PURPOSE of lesson One is to show how important it is to do well the simple thing: in connection with knitting. Some folks will say, "This is so easy to do that I don't need to read these instructions, for I wound yarn for Grandma years ago." Yarn winding is simple, it is true, but the best results are obtained when done carefully and according to these directions



Assembling the Parts

If the yarn swift winder bracket and winder wheel are not assembled, it will first be necessary for you to assemble them. To do this take the yarn swift bracket-this is the smaller one of the two brackets – and hold it as illustrated, remove the thumb nut from the bracket and insert the slots of the two swift arms over the screw from which you took the thumb nut. Insert these swift arms so that the brackets will be opposite each other, tighten the nut, then take a skein of yarn and hang it over the brackets, adjust the brackets by slipping them in and out so that they hold the yarn without stretching it tight or leaving it too loose.



Next take the winder wheel bracket and hold as illustrated, screw on the wheel and put the belt in its place as shown. You are now ready to slip the bobbin on the spindle of the winder wheel for winding the yarn. Clamp both to the table as shown.

A Good Bobbin

There is a right and a wrong way to wind a bobbin. Better results in knitting will be obtained when your bobbin is properly wound.

Observe the illustration of the bobbin wound in the right may.

To wind this bobbin, take hold of the yarn between the swift arms and the bobbin. and

Fig. 7. LEFT, A GOOD AND, RIGHT A BAD BOBBIN

when turning the crank move your hand back and forth, toward and from you, in order to guide the yarn on to the bobbin in a criss-cross fashion. When the yarn is wound in this way it unwinds from the bobbin more freely. If you do this the tightness of your winding will not interfere with your work, as it is better to have a tightly wound bobbin than a loosely wound bobbin.

Be sure also to keep your yarn well down on the bobbin. Never wind on to the bobbin within three inches of the top. If the bobbin is not wound by oscillating the yarn as described above, you will find that the strands of the yarn will pull between each other and thus bind when working off the bobbin. If you wind closer than three inches from the top, the yarn is quite apt to slip off over the end and thus tangle with the strand that is being fed to the machine.

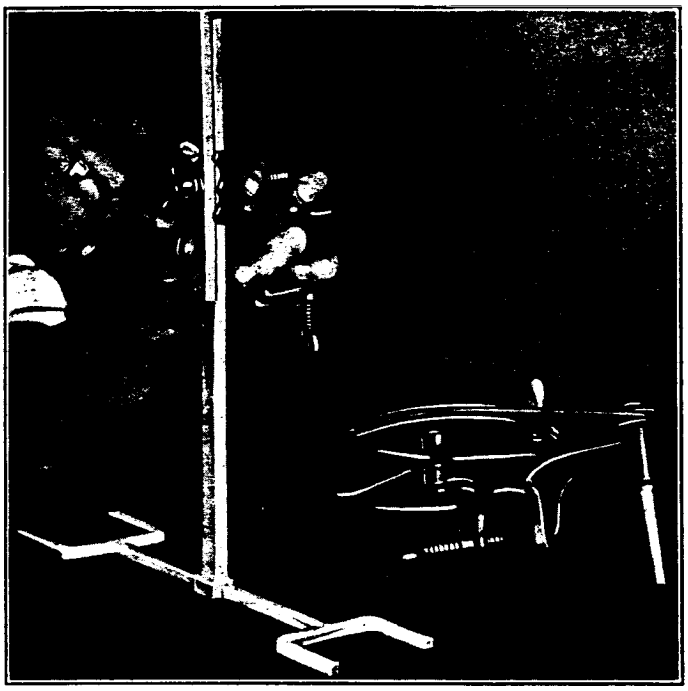


Fig. 8. The Right Way to Assemble

You will find the yarn swift works with entire- freedom when it has been assembled as shown here.

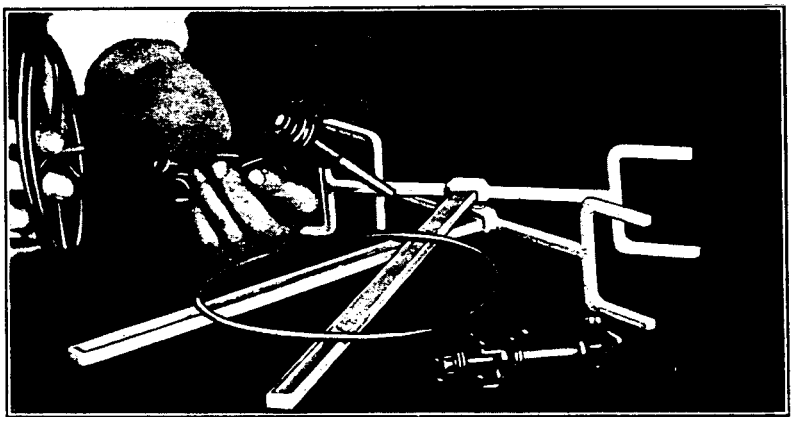
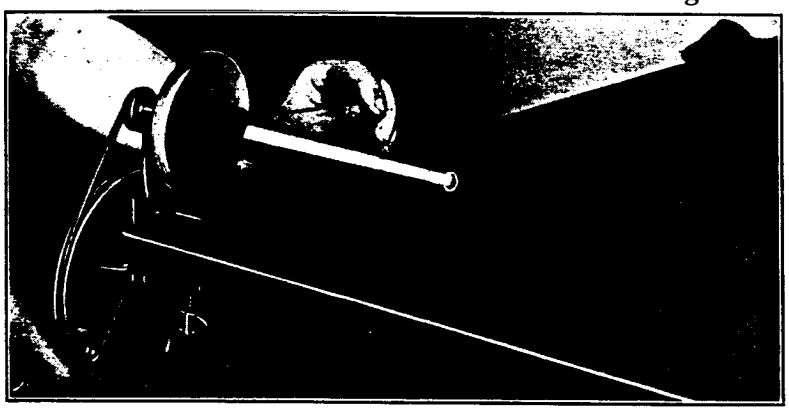


Fig. 8. Assembling Yarn Bracket



Never unravel the sock and wind into a ball, for it is unnecessary. Wind direct on to the bobbin.

Fig. 10. **Unraveling Sock While Winding on Bobbin**

LESSON II

Threading and Starting Work on the Machine

N0 part of *the act* of *knitting is more important than properly threading* the machine. Unless this is done there will be difficulty in getting the work set up.

*Before proceeding further let its add word o f caution about making adjust*ments on the machine until you have become more familiar with it. The work found in the machine was knit on it at the factory and in order to do this the adjustments have been perfectly set.

THREADING THE

Set the bobbin containing yarn on the bobbin bracket as illustrated (dial must he off the machine), then turn crank wheel to the *right* until yarn guide is in the rear of the machine. Thread the yarn through eyes one, two, three, thence to earn guide four, thence to cylinder and starter.

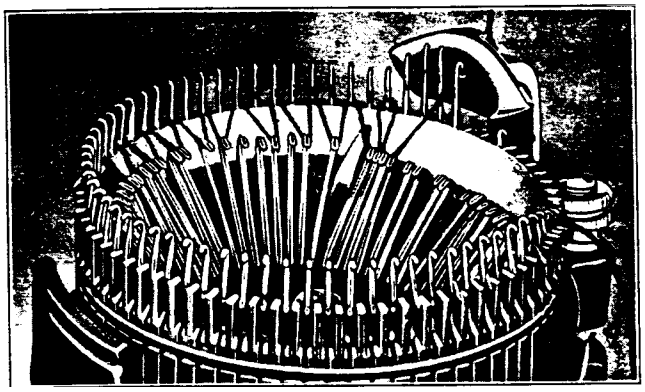


Fig. 11. **Proper Way to Insert**

Pull four feet of yarn through the guide, take the starter and hold inside the cylinder with the left hand. With the right hand grasp the earn close to the c0inder and catch it under the first starter prong to the left, then loop it around nearest needle at the left of the yarn guide. Continue this until every other needle of the machine has been threaded, and then thread at least the first twelve needles the second_ time. Bring up the low needles by slowly turning the crank wheel to the *right* until they are in position for threading. Take up all of the slack in the yarn from the bobbin. then see that the latches of all the needles are open wide. You are now ready to knit be turning crank wheel to the *right* until there is a perfect stitch on every needle. Knit slowly at first and study the action of the needles, the cams that control the needles and the machine.

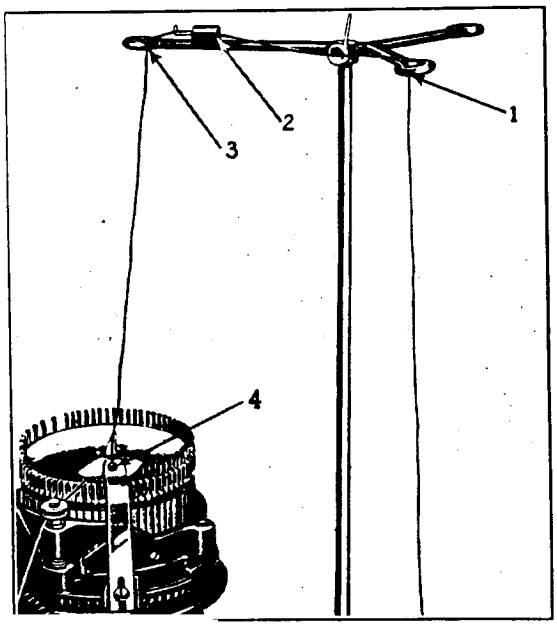


Fig. 12. **Threading Ne:dles-Starting**

Fig. 49. **Socks Bundled for Shipping**

SERVICE

Precautions to be observed in learning lesson II

THE HOME PROFIT KNITTER –THE MASTER MACHINE OF ALL KNITTERS

These suggestions closely followed will be helpful to you

First check up the threading of the machine to see if the Instruction; have been carefully followed. Above all do not forget to thread the yarn through the *eye* in the yarn guide.

Be sure to open the latches of the needles, for the needles cannot form their first stitches with the latches closed.

Before proceeding to knit, oil the cylinder and dial with a liberal amount of oil. Many beginners fail to put oil on the machine. The machine gets dry and the needles do not operate freely in the grooves.

The two lugs on the bevel gear ring are there for a purpose. Some beginners think interfere with the yarn guide. These lugs are used when knitting the heel and toe and also the left hand lug carries the jacket around the cylinder when knitting. If the machine sticks, beginners often think it is caused by these lugs, but this is not the case.

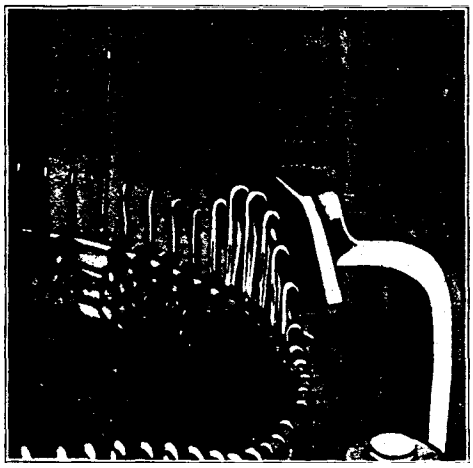


Fig. 13. **How to Put Dropped Stitches on Needles When Setting Up Work**

As a beginner in starting new work on the machine you may be troubled with the machine locking. This is caused by the heel of the first needle to the right of the right up-throw cam getting underneath the cam. To overcome this raise eight needles directly to the right of this cam, turn the crank until the left up-throw cam has passed these raised needles; then push the needles down.

If immediately after starting work on the machine, the yarn crowds up on the needles and comes off this indicates one of a number of things. **First, there may not** be a sufficient number of weights attached to the **starter; second,** that the needle latches may not be open; **third,** that you have not threaded several needles beyond the point where you started threading and **fourth,** that the yarn guide may be out of position.

Thread around the machine until you are back to the needle where you started, then continue threading several needles the second time.

Fig. 14. **Showing Yarn Guide Too Low**

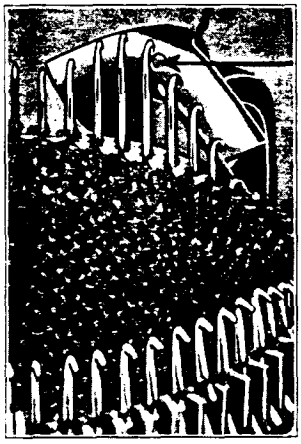


Fig. 15. **Showing Yarn Guide Too**

Fig. 16. **Showing Yarn Setting.**

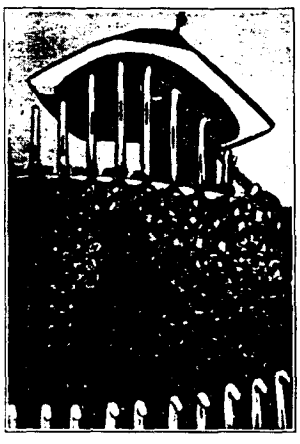
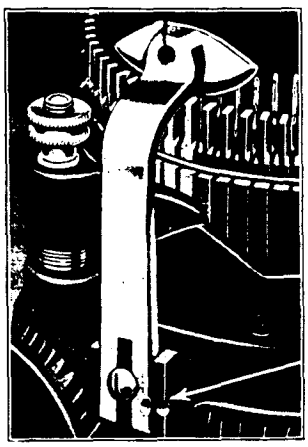


Fig. 17. **Notches for**



LESSON III

Knit Selvage, Cuff and Leg of Sock by Using Dial

AS THE machine is now threaded and ready for operation proceed to knit. If a sock is being knit it will be necessary to first form the selvage and cuff of the sock. This is done byusing the control plate and dial attachment. As the dial, control plate and arm are already assembled they should be inserted on the machine as illustrated. Turn the dial in the direction the arrow points until it stops. Then see that the slots in the dial line with the slots in the cylinder. (If the slots do not line, turn the dial slot adjuster No. 22-holding the dial as indicated by arrow at the same time.) Now slip dial needle into each dial slot and transfer the stitch from the cylinder needle directly in front of that dial needle. In trans erring the stitch, be sure to remove the cylinder needle from the machine.

To release the cylinder needles, pull the round clasp spring ring from the cylinder and slip it into the groove in top of the jacket directly in front of the operator. To reach all of the dial needles, turn the crank wheel to the right slowly. After every other cylinder needle stitch has been transferred to the dial needles, push into action shift lever-No. 6-and turn the crank wheel three times to the *right;* then push shift ever No. 6 back to its former position. This operation knits the selvage of the cuff and prevents the sock from unraveling.

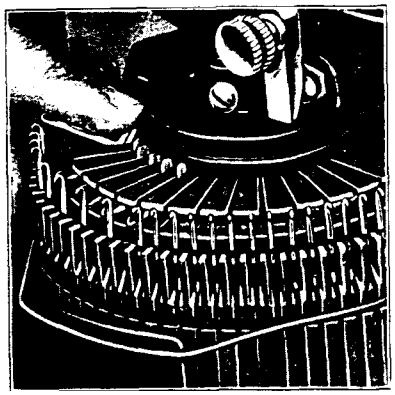


Fig. 19. How to Insert

The machine is now set to knit the cuff by turning the crank wheel forty, times to the *right.* (Be careful of the count.) In the meanwhile, hold the ,work well down in the cylinder by attaching weights to either the starter or buckle, if the buckle has been put on. The weights keep the stitches well down on the cylinder needles.

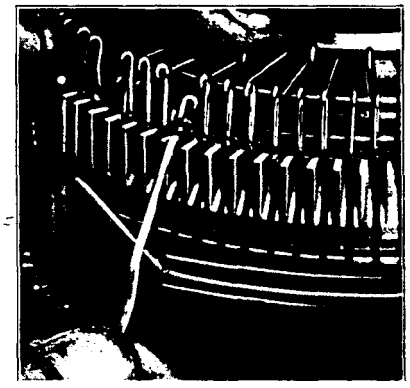


Fig. 20. Transferring

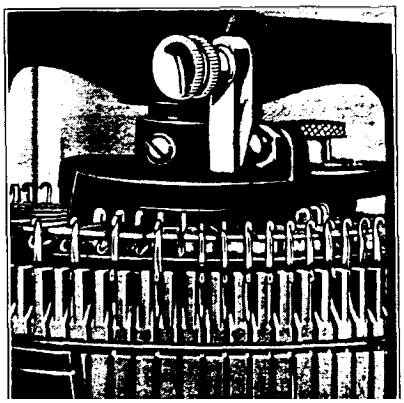


Fig. 19. Matching Dial Slots with Cyl

The point has now been reached where the leg of the sock is to be knit. To do this, commence at the front of the machine nest to the operator, putting into the cylinder slots the long needles so that there will be three needles, one empty -slot, three more needles, one empty slot, and so on around the entire cylinder. Be careful to transfer at the same time the stitch from every other dial needle to the cylinder needle just put in. (See illustrations of three and one rib.) The machine is now ready to knit the leg of the sock. Turn the crank wheel *sixty* times to the *right.* (Be careful of the count.)

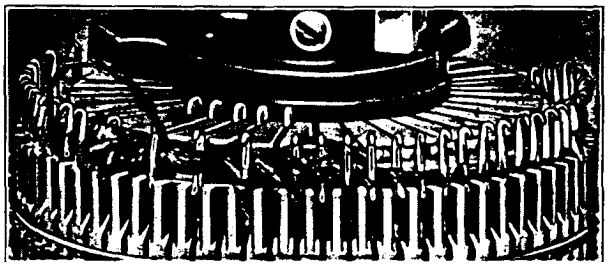


Fig. 21. Note Yarn Bunching Over Needles When Switch

SERVICE

Precautions to be observed in learning lesson III

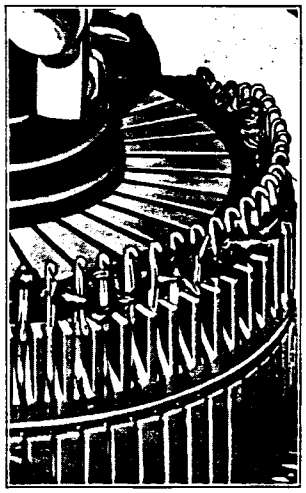


Fig. 22. Dial Set Too Low for Knitting. Yarn Bunching on Needles

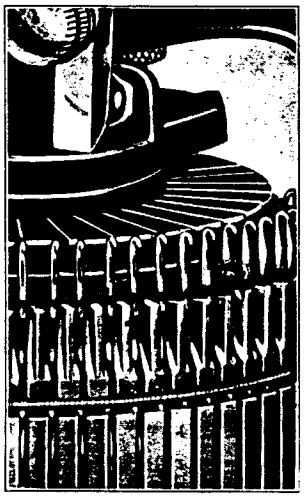


Fig. 23. Dial Set Too High for Knitting

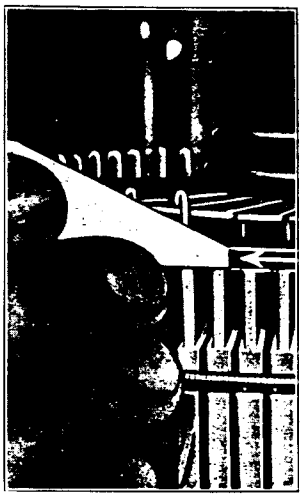


Fig. 24. Using Dial Gauge to Set Dial

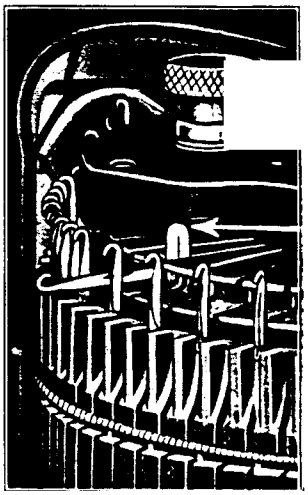


Fig. 25. How Dial Needles Lock Machine

I f you have trouble in ribbing study these illustrations

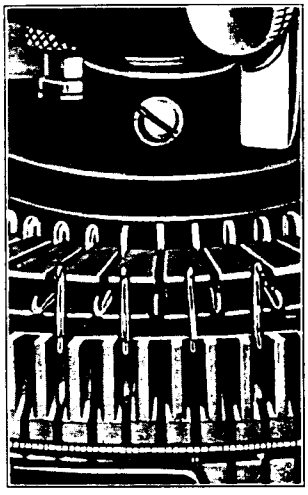


Fig. 26. Machine S e t for 1 and 1 Rib

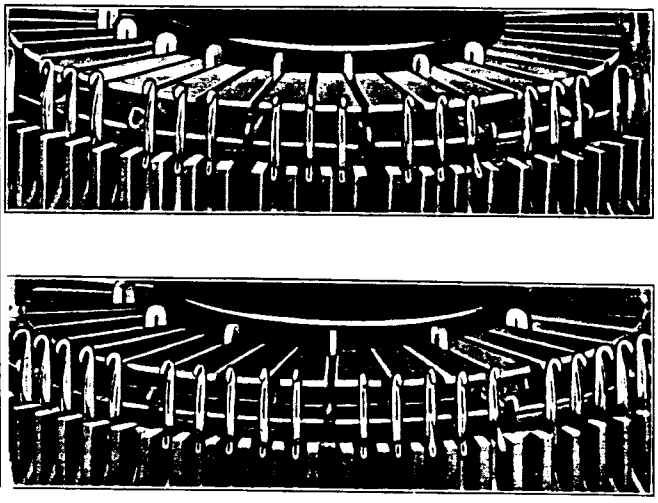


Fig. 27 Top-Machine Set for 3 and 1 Rib

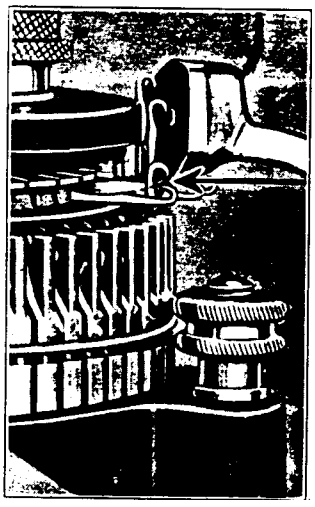


Fig.28. Below Machine Set for 5 and 1 Rib

Fig. 29. The Needles to Observe in timing

Service Lesson III-CONTINUED

After the cuff has been knit, take the starter from the work and clamp on the buckle and weights if not already done.

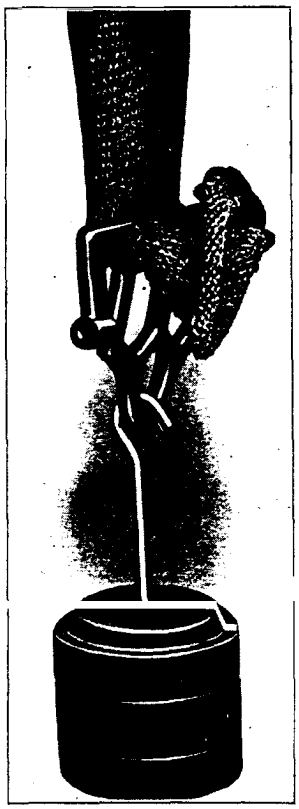


Fig. 30. Putting Buckle on.

After transferring the stitch from the cylinder to the dial needles, do not forget to release the clasp spring ring from the jacket before starting the machine.

After removing the cylinder or dial needles, keep them separate, as it takes time to sort them.

Start the machine very slowly-, being sure that every needle carries a stitch. If not, the work will contain holes.

See that the work is being held down with weights.

When `the dial needles are slipped into the slots, there is nothing to hold them until the stitch has been formed. This may confuse beginners. See that all the dial needles, before the stitch is formed, are pushed back so that the heel rests against the control plate. Otherwise, the end of the needles my catch on the point of the cam under the control plate and lock the machine.

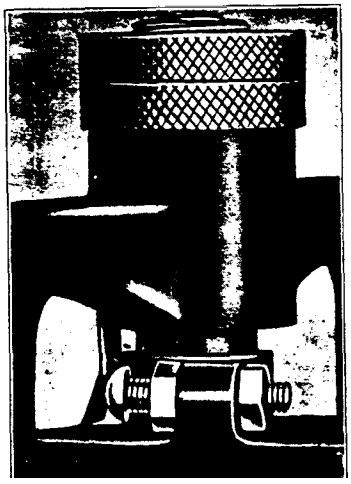


Fig. 31. Timing Slow, Letter Fast, Loosen Lock Nut at End

If the needles do not form their stitch the yarn will bunch up at the top of the dial.

First observe if the dial has been set at the proper height. This can be determined by using the dial height gauge. Second, be sure that the slots in the dial line with the slots in the cylinder.

Never turn the jacket or bevel gear ring of the machine by hand; always turn with the crank wheel.

Never move the control plate by hand when inserting the needles. This will cause the stitches to bunch up on the needles.

In putting on the dial. the beginner meets with certain difficulties unless the instructions given herewith are followed carefully. Chief among these difficulties are dropped stitches, and locking of the machine. There may he one or more reasons for either of these conditions, but it indicates a failure on the part of the operator to follow instructions. First see that the ribber attachment a set completely down in the socket. Also that the needle slots in the dial are lined properly with the needle slots in the cylinder. The dial needles may have worked out in the needle groove sufficiently to cause them to catch on the control plate, and again the driving pin may not be against the head of the timing screw. Be sure to observe these caution; before commencing to work.

A very important caution to hear in mind-do not turn the jacket, control arm or control plate by hand: Always turn these with the crank. Dropped stitches will occur if these instructions are not followed.

In putting on the control arm be sure to have the red mark on the control arm line with the red mark on the jacket socket. In following these directions the control arm is placed on the machine in correct position.

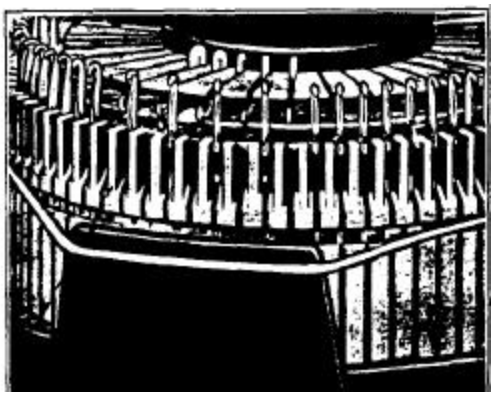


Fig. 32. Clasp spring out for removing needles.

Lesson IV-CONTINUED

Raise right needles 1 and 2, turn crank to left once.
Raise left needles 1 and 2, turn crank to right once
Raise right needle 3 turn crank to left once.
Raise left needle 3 turn crank to right once.

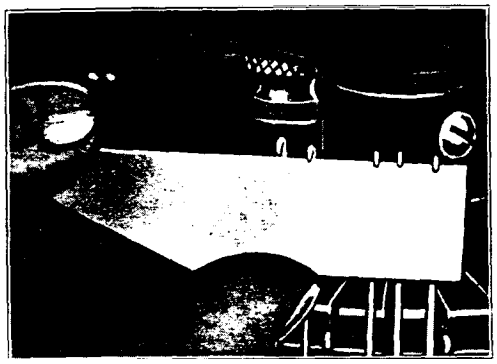


Fig. 36. **Using Tool to Raise Needles**

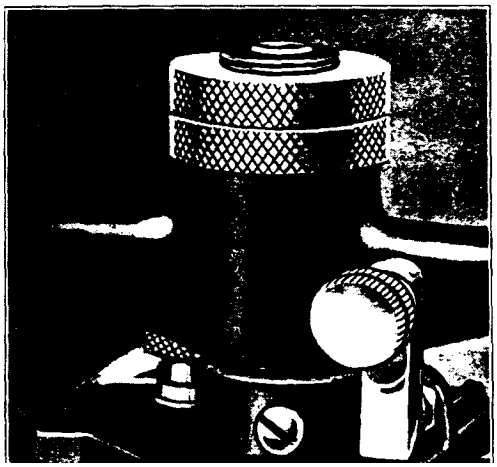


Fig. 37. Usual Knitting Position for Driving Pin

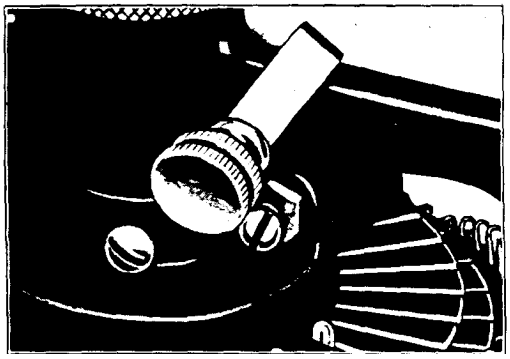


Fig. 38. Position of Driving Pin in Making Heel

right needle 4 turn crank to left once.
left needle 4 turn crank to right once
Raise right needle 5 turn crank to left once.
Raise left needle 5 turn crank to right once
Raise right needle *6* turn crank to left once.
Raise left needle 6 turn crank to right once
Raise right needle 7 turn crank to left once.
Raise left needle 7 turn crank to right once
Raise right needle 8 turn crank to left once.
Raise left needle 8 turn crank to right once
Raise right needle 9 turn crank to left once.
Raise left needle 9 turn crank to right once
Raise right needle 10 turn crank to left once.
Raise left needle 10 turn crank to right once
Raise right needle 11 turn crank to left once.
Raise left needle 11 turn crank to right once
Raise right needle 12 turn crank to left once.
Raise left needle I? turn crank to right once

This completes the first half of the heel. Now knit the last half of the heel table by doing thus:

Push down left needle I2 turn crank to left once.
Push down right needle 12 turn crank to right once.
Push down left needle 11 turn crank to left once.
Push down right needle 11 turn crank to right once.
Push down left needle 10 turn crank to left once.
Push down right needle 10 turn crank to right once.
Push down left needle 9 turn crank to left once.
Push down right needle 9 turn crank to right once.
Push down left needle 8 turn crank to left once.
Push down right needle 8 turn crank to right once.
Push down left needle 7 turn crank to left once.
Push down right needle 7 turn crank to right once.
Push down left needle *6* turn crank to left once.
Push down right needle *6* turn crank to right once.
Push down left needle 5 turn crank to left once.
Push down right needle 5 turn crank to right once.
Push down left needle 4 turn crank to left once.
Push down right needle 4 turn crank to right once.
Push down left needle 3 turn crank to left once.
Push down right needle 3 turn crank to right once.
Push down left needle 2 turn crank to left once.

At this point turn the crank wheel to the right stopping the yarn guide at the front of them. Push down all of the remaining needles without moving crank wheel; then turn crank wheel to the rear of the machine, open wide all of the needle latches ; set driving pin-No. 9-in *in* position; then push switch lever No. *6-in* and release the yarn from over the heel spring.

The heel is now complete. The next lesson will show how to knit the foot of the sock.

SERVICE

Precautions to be observed in learning lesson IV

SUCCESS depends upon a close observance of the instructions given in this lesson. The most important points to be remembered in making this part of the sock are to hold the stitches down firmly on the needles and to bear in mind just which way to turn the crank when raising the needles while knitting the first half of the heel and pushing them down while knitting the last half.

The one important thing to remember at this point is to HOLD DOWN THE WORK. When the work begins to crowd to the top of the needles, take the V-shaped hook, insert it in the bottom of the cylinder and catch the heel, being knit, close to the needles and, as you knit, hold the work down firmly but be careful not to tear the work with the heel hook.

Some people prefer to hold the work down with the fingers.
This can be done by reaching into the cylinder and grasping the heel with the fingers, thus pulling sufficiently to keep the thread down on the needles.

If the crank wheel is turned contrary to the direction indicated in the lesson, each time a needle is pushed down a **hole will be** formed in the heel. Therefore it is very essential to follow the instructions explicitly. Do not make a mistake in the needles pushed down and do not make a mistake in the direction in which the crank wheel is turned.

Service Lesson IV-CONTINUED

In hooking the earn over the heel.-hook follow the illustrations carefully. Otherwise the heel hook will fail to take up the slack in the yarn, thus causing the yarn to loop around the needles and dropped stitches will result.

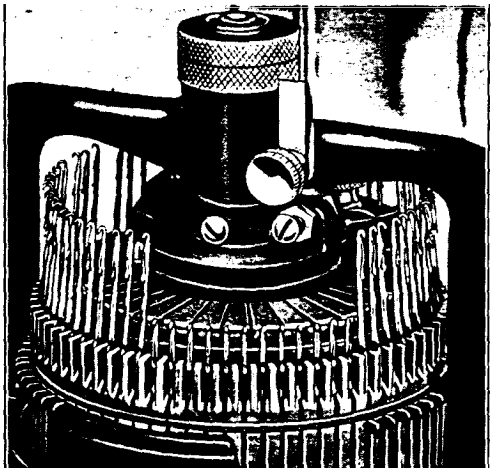


Fig. 39. **Position of Needles Heel Half knit**

Do not turn the crank wheel backwards while knitting any part except the heel and toe. This causes the point of the right up-throw cam to be raised. Then when the crank wheel is turned forward the right up-throw cam travels on top of the heel of the needles and thus locks the machine. It also draws the stitches off from the needles. Never turn the crank backwards except when making heel or toe.

Watch the stitches carefully and do not knit when they have slipped up on. the needles. Take hold of the work and pull stitches back until they rest on the top of the cylinder.

Let us caution about inserting the heel hook. This hook will tear the work easily unless handled carefully.

In making the heel do not fail to turn the crank wheel in the right direction as shown in the lesson. Otherwise the machine will drop stitches and make large holes in the heel of the sock.

Failure to raise the proper needle, as indicated in the lesson, will cause the machine to drop stitches and make large holes in the heel of the sock..

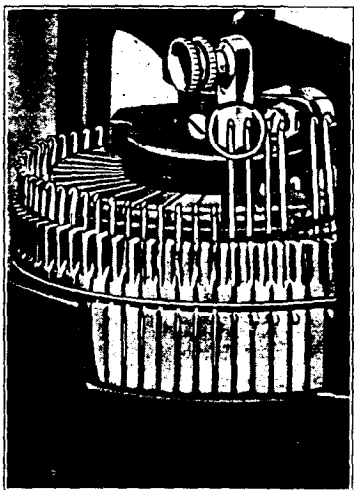
Be sure to push the out of action shift lever-No. 6-after finishing the heel of the sock or the work already done will be spoiled.

Should the machine work hard at this point, put oil on the cylinder and dial.

In raising the needles use the little tool provided for that purpose. This tool is also used in setting the dial at the proper height.

In knitting back and forth be sure to turn the crank w heel far enough so that the yarn guide goes back to the rear of the machine. Otherwise the stitches on the needles, next to the raised needles, will work up and off. The yarn guide must go back far enough to clear the loose yarn at this point.

The purpose of raising the cylinder needles is to throw them out of action so that they discontinue to knit. When these needles are pushed back into action they form stitches.



Be sure that first two needles raised are at the notches on cylinder.

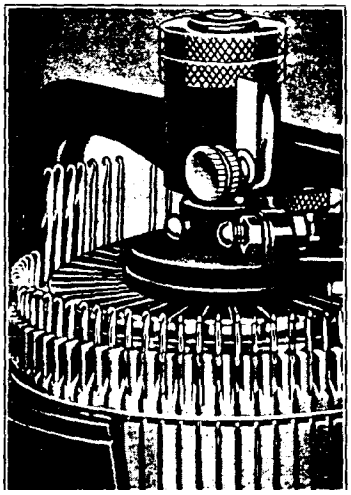


Fig. 40 Raising two needles at right

Fig. 41 Raising two needles at left

LESSON V

Knitting Foot and Toe of Sock

The foot of *the sock is very easy, to knit and the toe is a duplication of the heel with this exception-the ribber attachment is removed.*

THE heel of the sock has just been finished. If the instructions as given have been followed the machine is now set and ready for making the foot. Turn the crank wheel *fifty* times to the *right* (be sure of the count), stopping the yarn guide at the front of the machine. This operation completes the foot of the sock.

Fill all of the remaining empty cylinder slots with cylinder needles. Remove all of the remaining dial needles from the dial and, when doing so, transfer their stitches to the cylinder needles inserted. Then remove control plate and dial from the machine by simply lifting up and out. Commencing at the right notch on the cylinder, raise all of the cylinder needles in the back half of the cylinder as shown in the illustration. Turn the crank wheel to the right, stopping the yarn guide at the rear of the machine. Hook down the tension spring on the yarn stand top and see that the yarn is under the wire hook and over the tension spring hook.

Commencing at the right hand notch on the top of the cylinder, as shown in heel diagram on page nineteen, follow explicitly the instructions for raising and lowering the needles as given for knitting the heel. The toe is knit in exactly the same way as the heel is knit. After all of the needles in the front half of the cylinder between the right and left notches have been pushed back, turn the crank wheel to the right until the yarn guide is at the front of the machine. Then push down all of the remaining needles in the cylinder, release the yarn from the tension spring hook and see that all of the needle latches are open. Make *three* complete revolutions of the crank wheel to the right. This completes the knitting of the sock.

In order to take the sock from the machine, without unthreading the machine, break the yarn between the cylinder and the yarn stand top. Take a piece of white, yarn or string and thread through the hole on the opposite side of the yarn stand top and tie it to the end of the knitting yarn attached to the work. Turn the crank wheel to the *right* from five to ten revolutions, the break the white thread and tie in the knitting yarn.

The machine is now threaded and ready for the next sock, by making *one* revolution of the crank wheel to the *right.* Put on the control plate and dial and proceed as before to knit the selvage. The first sock can be cut off after the work is below the bottom of the machine by cutting in the center of the white yarn. Be sure to pick the white yarn out of the toe and selvage of the sock..

SERVICE

Precautions to be observed in learning lesson V

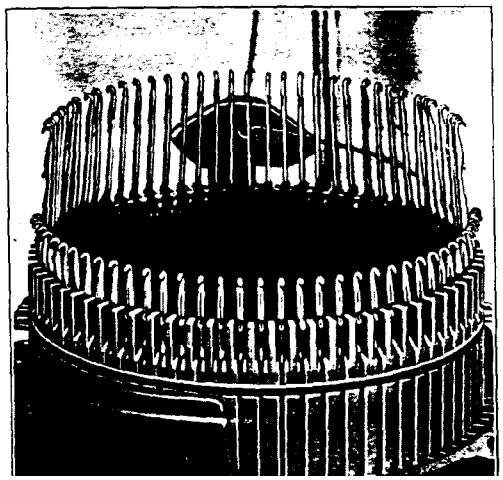


Fig. 42. **Position of Needles When Starting Toe**

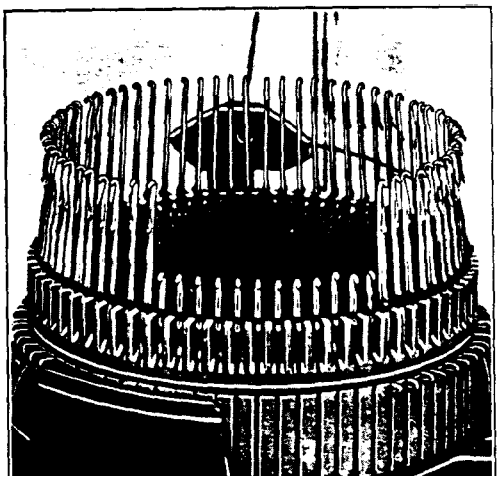


Fig. 43. **Position of Needles Toe Half Knit**

THE knitting of the toe of the sock is almost a repetition of the heel, so carefully observe all the directions and follow the formula for raising and lowering the needles.

THE WORK will crowd up on the cylinder while knitting the toe in the same way that it does while knitting the heel, but it can be kept down easily for the top of the cylinder is open and the work can be pushed down from the top. Be careful, however, that the stitches do not slip off from the needles.

IF AFTER the first sock is removed from the machine, it contains dropped stitches and holes, the yarn put into it need not be wasted as it will unravel with ease and wind directly- on to the bobbin and thus can be used again. In case the yarn breaks be careful not to tie it with large knots. Any ordinary knot will knit through the machine with ease, but a large knot with long ends will cause dropped stitches.

When knitting, occasionally glance at the bobbin and before using the last of the yarn it contains have a full bobbin ready to tie in. Unless this is done the last of the thread will unwind from the bobbin and in an instant the sock will run off the machine and drop to the floor.

LESSON VI

Taking Sock from Machine- Closing Toe-Shipping

In this lesson we give several pictures to show how- the toe of the sock should be closed and how the socks should be prepared for shipping. It takes no longer to prepare a neat bundle than one that is not pleasing to the eye.

It is very essential to execute this lesson with care. It my- take a few hours to master the proper way to close the toe, but once learned the closing of the toe will be rapid work.

Now that the sock has been taken from the machine, it will be necessary to follow carefully these instructions in order to close the toe of the sock properly. First lay the toe of the sock flat and press under a damp cloth with a hot iron. Then unravel from the toe three complete rounds of stitches, being careful not to break off this unraveled yarn as it will immediately be used in closing the toe. Then join the stitches by hand, using this yarn and a darning needle. Follow the illustrations given herewith very carefully. Commence on the side of the toe to which the yarn is fastened and pass the needle down through loop A, up through B, back through A, in into loop C, down through B, into loop D, up through C, into loop E, down through D, into loop F, up through E, into loop G. continuing this process until the toe is completely closed. Keep the tension of the closing stitch the same as the stitch in the knitting.

After the toe has been closed, cover the sock with a dampened cloth and press with a hot iron. Be careful to mate up the sock in pairs; that is, see that two socks are the same length, same width and same tension of stitch.

Fig. 44. **Coffins Dividing Cotton**

Fig.45 Removing dividing cotton from sock

Fig. 46. Pressing Toe to Close

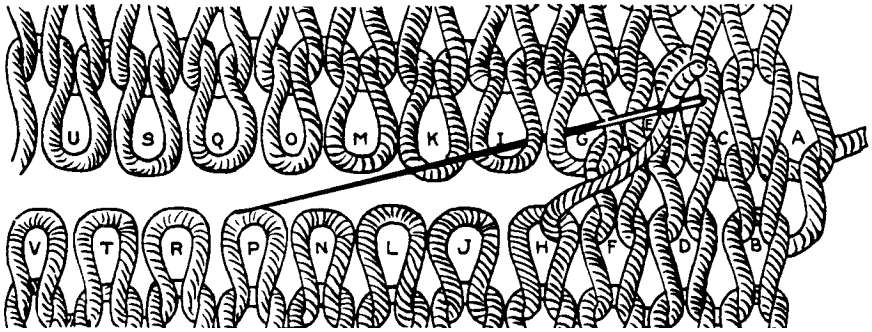


Fig. 47. Catch These Loops in Closing Toe

SERVICE

Precautions to be observed in learning lesson VI

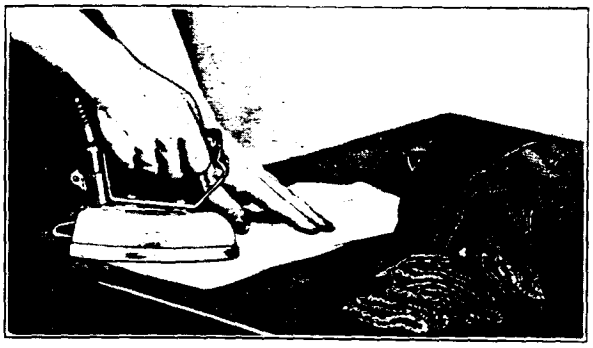
The Well Finished Sock

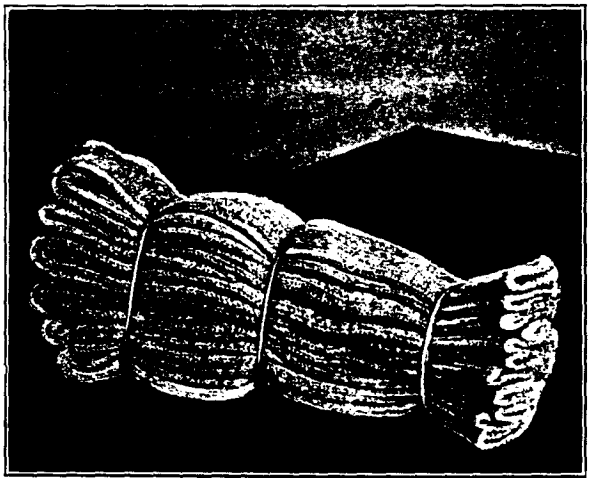
Always Sells

This Will Mean Success For You

PREPARING the socks for shipment is almost as essential as the knitting itself. Tie the socks into bundles of six pairs to the bundle. Wrap them in strong paper. Tie them securely for shipment and use the hosiery label we furnish.

A11 small shipments should be forwarded to us by parcel post securely wrapped. Large shipments should come to us by Express. Prepay charges on all shipments. As we pay delivery charges on ten pounds and over such charges will be included in our work check. We ask you to do this in order to secure prompt and efficient delivery service on the socks both for your and our benefit.





The Art of Knitting Plain Socks

The selvage and cuff of a plain sock are made in the same manner as the selvage T and cuff of a ribbed sock. (See instruction for these on page 16.) When these have been made proceed with the leg of the plain sock. Put a long needle in each slot of the cylinder, transferring the stitches from the dial needles to the cylinder needles until a stitch is on each needle of the cylinder and all the dial needles have been removed from the dial. Take off the dial and control plate, turn crank wheel to the right sixty' complete revolutions. This knits the leg of the sock. To knit the heel proceed in the same manner as knitting the heel of a ribbed sock (see page 19). After the heel is completed turn the crank wheel to the right fifty complete revolutions. This knits the foot of the sock.

To make the toe, follow instructions for making the toe of a ribbed sock on page 23. The plain sock is now completed.

Fig. 51. **Men's Golf Stockings**

Men's Three and One

Golf Stockings

Set the machine with work in the same way as for men's ribbed socks. Form the selvage by pushing switch lever out of action, then return switch lever to its former position and knit *twenty-three* revolutions.

If you desire to put on a second color at this point, break the earn, tie in the second color and knit *five* revolutions. Break the yarn again and tie in the original color. Knit *five* more revolutions, repeat the above for the second stripe, then change the machine to a three and one rib and knit one *hundred and thirty* revolutions. This knits to the heel.

The heel is made in the same way as in the ribbed sock. Knit *fifty* revolutions for the foot in the same way as the foot of the ordinary sock is knit. The toe is identical to the toe of a man's sock.

Roll the cuff as illustrated in the picture.

LADIES' 3-1 RIB STOCKINGS

Thread the machine in the same way that it is threaded for a man's sock. Form the selvage by

Fig. 52. Ladies' 3-1 Ribbed

knitting *three* revolutions to prevent the stocking from unraveling. Then knit *three* revolutions of one and one rib. Change the needles to a three and one rib and knit *one hundred and ninety-seven* revolutions. This knits the leg of the stocking.

Form the heel in the same way that the heel of a man's sock is formed. Knit *thirty* revolutions for the foot. The toe of the stocking is made in the same way as the toe of a man's sock.

HOSE BOARD PATTERNS

For the convenience of our workers and upon request from them, we will furnish paper patterns for hose boards, for men's, women's and children's stockings.

1. For Men's Hose.
2. Ladies' stockings, Ladies' golf stockings, Men's golf stockings.
3. Children's stockings, Children's socks.

It is easy for the worker to make lose boards from these. patterns by- securing a piece of fiber board or wall board, placing the patterns flat. marking around the edge and then cutting to the marks.

These patterns are furnished free of charge.

CHILD'S SOCKS

We do not advocate knitting stockings or socks for children under twelve years of age on a seventy-two needle cylinder. However, the seventy-two needle cylinder will knit stockings for children above that age.

In knitting a child's sock set the work up as for a man's sock, that is a one and one rib. Form the selvage by three turns of the crank with the switch lever-No. 6--out of action, then throw switch lever-No. 6-back into its former position and make *fifteen* revolutions.

After these revolutions have been made break the yarn between the yarn guide and the yarn stand top, tie in the second colored yarn which has been threaded through the yarn stand top and knit *twelve* revolutions. Break the yarn, thread the original yarn through the yarn stand top, tie it to the yarn on the machine and turn the crank wheel *one hundred and fifty-seven* revolutions to the right. The sock is now knit to the heel.

Make the heel in the same way that the heel of a man's sock is made, then turn the crank wheel *twenty-five* times to the right which forms the foot.

Make the toe in the same way as the toe of a regular sock is made.

Fig. 53. Ladies' 5-1 Ribbed

Fig 54. Child's Toque, Scarf, Socks

CHILD'S TOQUE

Thread the machine with yarn, leaving the ribber attachment off. Turn the crank wheel until the yarn guide is directly at the front of the machine, then remove from the rear of the cylinder twenty-four cylinder needles. This leave six needles on each side of the cylinder back of the notches. Next insert the starter, thread the remaining needles and get a perfect stitch on each needle. Knit *two hundred anti twenty-five* revolutions back and forth in the same way the heel of a sock is knit, starting the work by turning the crank wheel to the left, then once to the right and so on. Do not raise needles while knitting thus.

Take the work out of the machine and join the two ends, drawing the top together to form the crown.

Take thirty-eight needles out of the back of the cylinder. This will leave thirty-four in front. This means that you will take one needle out in front of both the right and left notches.

Insert the starter, threaded with the second colored yarn, and make *one hundred and eighty* revolutions back and forth in the same way the heel of a sock is knit, starting the work by turning the crank wheel to the left and then to the right and so on. Do not raise needles while knitting. This will form the band for the toque. Remove it from` the machine, double, and sew to the crown of the toque formerly knit.

The tassel should be made out of yarn. The size of the tassel is determined by the amount of yarn put into it. Take the amount of yarn desired, cut it about seven inches long, tie the strands together in the middle, bind these with yarn at the point where they tied in order to form a knot, then clip the ends and the tassel is ready to sew on.

CHILD'S SCARF

Remove twenty-six needles from the rear of the cylinder. This leaves five needles back of the right and left notches in the cylinder. Thread the machine, using the starter. Turn the crank wheel back and forth, alternating in the same way that the heel of a sock is made, commencing by turning the crank wheel to the left. Hake in all *three hundred and fifty* revolutions, but do not raise the needles while knitting.

For the second color which appears on the edge of the scarf take out all but fifteen needles, these remain in the front of the cylinder, thread your machine with two strands of yarn, then knit back and forth, starting by turning to the left. Make *three hundred and* fifty revolutions. This knits one edge. For the other edge repeat these instructions. Sew one strip on each side of the first piece knit. This forms the scarf.

If desired, a fringe can be added to the scarf as shown in the illustration by using yarn looped through with a crochet hook.

In addition to the lessons for Home Work given herewith, many other useful articles of wearing apparel can be made on the machine by following the general outline of these lessons. Articles such as boys' stockings, girls' stockings, boys' sweaters, children's leggings, mittens, underclothing, men's undershirts, corset covers, babies' jackets, babies' Teddy-gear suits, etc.

In addition to wearing apparel, articles for the home such as doilies, dresser scarfs, table runners, cushion tops, dish cloths, and bed spreads can be made.

Child's Sweater

In order to knit a sweater it is necessary to knit the front and back in four sections and fasten them together by hand, using the same colored yarn.

To do this remove twenty-sit needles from the rear of the cylinder. This will leave five needles on either side of the cylinder back of the notches and all of the-needles in the front part of the cylinder. Put in the starter and thread the machine, get perfect stitches formed in plain knitting, then turn the crank wheel back and forth alternating, commencing by first turning to the left. Make *one hundred and eighty* revolutions. This forms the left half of the sweater back and brings you to the neck. Do not raise needles while knitting.

To knit the neck raise nineteen needles at the left notch and knit *thirty* times back and forth. This completes the left half of the back. Take this work out of the machine, thread the machine again and make the right half of the back by doing the same except that you raise nineteen needles at the right notch.

Fig. 55. **Child's Sweater**

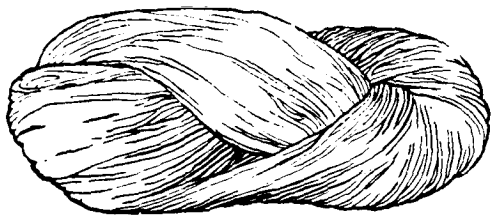
To knit the front, set up the work identically-as in knitting the two sections of the back, but knit only *one hundred and sixty* revolutions. In knitting these strips do not raise any needles while knitting.

To knit the sleeves leave all needles in the cylinder and knit the same as a plain sock. Knit *sixty-five* revolutions.

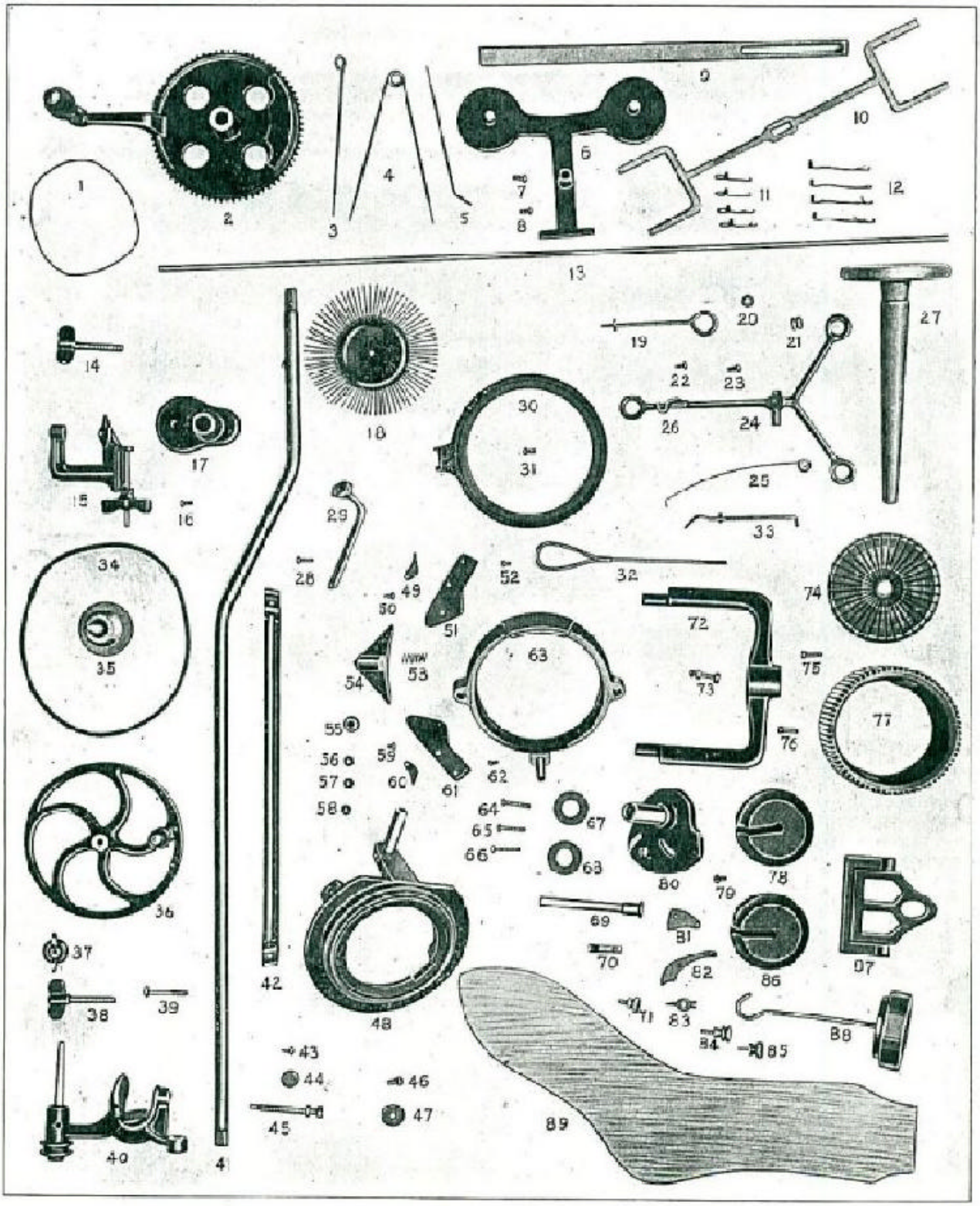
For the collar remove all the needles from the cylinder except seventeen in the front, double your thread by threading two strands in the machine. Knit back and forth for *one hundred and fifteen* times. You are now at the place where you will narrow your work down to the point of the collar by raising one needle at a time, first on the left, then on the right and so on until you have one needle left in action. At this point remove the work from the machine. Push the seventeen needles back into action, hook the stitches of the other end of the collar on to these seventeen needles and repeat the above instructions in order to narrow the other end of the collar to a point.

This completes the knitting of the sweater. Now joint the two back strips and the two front strips. Sew up the sides, join at the shoulders, insert sleeves and sew the collar on. Be sure to use for your thread the same kind and quality of yarn that was used in the sweater.

Take a crochet hook, crochet a picot edge across the front, make two tassels for the collar, then put fringe on the sleeves and bottom of the sweater. Use yarn for the fringe.



Separate Units of the Master Machine



PRICE LIST OF PARTS

When Ordering Parts Always Designate by Number

No.		Price
1	Clasp Ring	$. 50
2	Crank Wheel	5.00
3	Straight `'York Hook	.40
4	Heel Hook	.70
5	Work Hook	.40
6	Yarn Stand Bracket	2.00
7	Yarn Stand Bracket Screw	.06
8	Yarn Stand Bracket Screw	.06
9	Yarn Wheel Stem	1.00
10	Yarn Wheel Stem Top	1 .50
11	Dial Needles	each .05
12	Cylinder Needles	each . 05
13	I-arn Stand Rod	.25
1-1	Swift Bracket Thumb Screw	.25
15	Swift Bracket	1 .40
16	Foot Screw	.06
17	Foot	.50
18	Starter Disk and Wire	2.00
19	Starter Hook	.15
20	Starter Washer	.03
21	Starter Nut	.06
22	Heel Spring Screw	.06
23	Yarn Stand Top Screw	.06
24	Warn Stand Top	1.50
25	Heel Spring	.40
26	Take-up Lock	15
27	Bobbin	.50
28	Leg Brace Screw	.06
29	Yarn Guide	2.00
30	Be-rel Gear Ring	5.00
31	Yarn Guide Screw	.06
32	Screw Driver	.30
33	Dial Adjuster	1.50
34	Winder Belt	.40
35	Oil Can	.15
36	Winder Wheel	1.40
37	Swift Nut	. 30
38	Winder Bracket Thumb Screw	.25
39	`'Finder Wheel Screw	.25
-10	Winder Bracket	2.50
-Fl	Leg	2.00
-12	Leg Brace	.50
43	Leg Brace Screw	.06
44	Dial Adjuster Screw Nut	.25
45	Dial Adjuster Screw	.50
46	Crank Wheel Screw	.06
47	Crank Wheel Washer	$ .25
-18	Base Plate	10.00
49	Left Up-Throw Cam	1.00
50	Up-Throw Cam Holder Screw	.06
51	Lip-Throw Cam Holder	.50
52	Up-Throw Cam Holder Screw	.06
53	Master Cam Tension Spring	.50
54	Master Cam	1.50
55	Tension Nut	25
56	Leg Nut	.06
57	Leg Nut	.06
58	Leg Nut	.06
59	Up-Throw Cam Holder Screw-	.06
60	Right Up-Throw Cam	1.00
61	Up-throw Cam Holder	.50
62	Up-Throw Cam Holder Screw	.06
63	Jacket	12.00
64	Leg Screw	.06
65	Leg Screw	.06
66	Leg Screw	.06
67	Dial Head Adjuster Nut	.50
68	Dial Head Adjuster Nut	.50
69	Dial Stud	1.50
70	Driving Pin	.50
71	Tension Cam Thumb Screw	.25
72	Control Arm	5.00
73	Timing Screw and Nuts	10
74	Dial-36 Needle	8.00
48	Needle	11.00
75	Cylinder Screw	.06
76	Cylinder Screw	.06
77	Cylinder-96 Slot	.16.00
	72 Slot	1-1.00
78	Medium Split Weights	.40
79	Dial Post Screw	.06
80	Control Plate	4.00
81	Out-Throw Cam	1.00
82	Tension Cam	1 .00
83	Pointer	.06
84	Driving Pin Thumb Screw	.25
85	Out-Throw Cam Thumb Screw	.25
86	Heavy Split Weights	50
87	Buckle	.50
88	Base Hook with Handle	1.00
89	Hose Board, glen	.50