



INSTRUCTIONS

FOR SETTING UP AND WORKING

**FRANZ & POPE**

**Automatic Knitting Machine.**

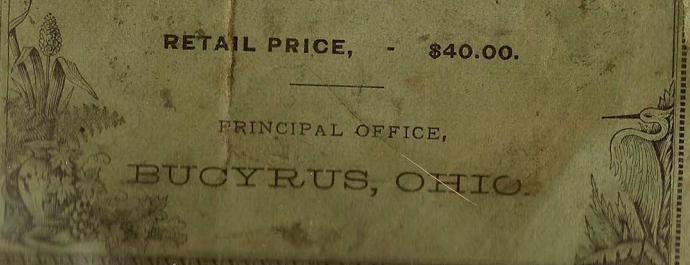
— MANUFACTURED BY THE —

**FRANZ & POPE KNITTING MACHINE CO.**

[INCORPORATED UNDER THE LAWS OF OHIO.]

RETAIL PRICE, - \$40.00.

PRINCIPAL OFFICE,  
BUCYRUS, OHIO.



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## INTRODUCTION.

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In placing this Knitting Machine in the market as an article of sale, we do so with the fullest confidence and assurance of its absolute, unquestioned superiority over all machines of the kind that have ever been manufactured. It is intended to be eminently and emphatically a Family Knitting Machine, and for this purpose it is offered to the public, as meeting most completely a known and long-felt domestic want. Its practical utility in the manufacture of substantial hosiery, in which it stands without a rival, is of course, its chief recommendation. But this is only one out of the multiplied uses to which it may be applied. There is scarcely an article of fancy apparel or household adornment that can not be made upon it with perfect facility and ease. The taste and ingenuity of the operator is the only limit to the variety of style and quality in the work it may be put to do. We say this without boasting or exaggeration. We say only what is capable of triumphant demonstration in hundreds of households where these machines are in use as a means of fire-side amusement, or as the grateful agency for lessening the heavy burden of female labor. To the weary sewing woman we would say, therefore, examine into the capabilities of this machine to furnish you with a more liberal and certain livelihood. To the female head of a household, we say, insist on the purchase of one of these machines for the use of yourself and daughters. And to the generous-minded husband, we say, do not delay to furnish one of them to the toiling mother of your children.



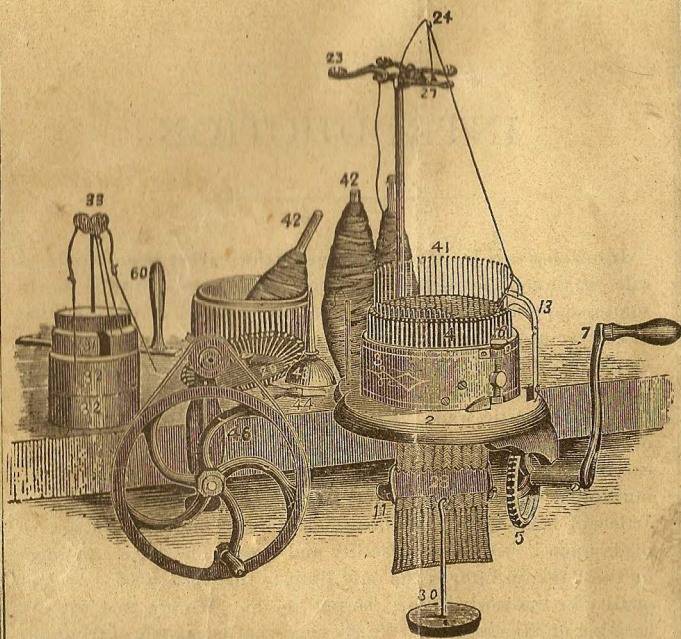


Figure 1.

Shows the machine complete, with a part of the needles raised up out of action for knitting a heel. The different parts of the machine are represented by figures, as follows:

- |                     |                        |
|---------------------|------------------------|
| 1. Bed plate.       | 28. Buckle.            |
| 2. Cog ring.        | 29. Set-up device.     |
| 3. Cam cylinder.    | 30. Weight hook.       |
| 4. Needle cylinder. | 31. Small weight.      |
| 5. Crank wheel.     | 32. Large weight.      |
| 7. Crank.           | 34. Heel holder.       |
| 11. Table screw.    | 41. Needles.           |
| 13. Yarn carrier.   | 42. Bobbins.           |
| 16. Tension screw.  | 43. Oil can.           |
| 23. Yarn stand.     | 44. Screw driver.      |
| 24. Take-up spring. | 46. Spooler.           |
| 27. Take-up lock.   | 60. Swift (old style). |

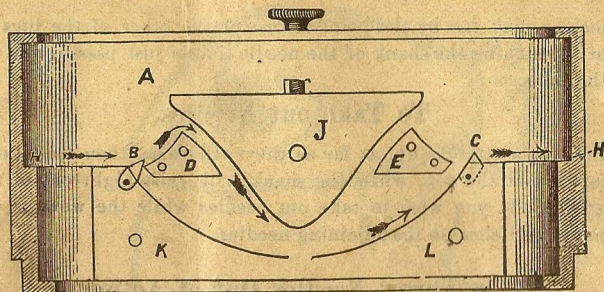


Figure 2.

Shows the cams inside of the cam cylinder. J is the tension cam, D and E are the cam lugs, K and L the lower cams, and B and C the latches. The operation of the machine is as follows: The latches of the needles are always held down by the stitch while knitting, to prevent them from snapping up and dropping stitches.

The shank or heel of the needles passes along on the shoulder H of the cam cylinder, until they strike the latch B, which drops back and closes the space between the lower cam K and lug D, causing the needles to pass up over the lug D; this releases the latches of the needles. The guide on the under or inside of the yarn carrier 13, Figure 1, prevents the latches of the needles from snapping up at that point.

The yarn is then fed into the needles from the carrier, when the cam J strikes the shanks of the needles and draws them down, which forms the new stitch, then the lower cam L strikes the shanks of the needles, and raises them again to the shoulder H. In passing up between the cam L and lug E, the shanks of the needles strike the latch C, when it drops back and remains so until the machine is reversed to knit backward. When the machine is reversed, the yarn carrier is moved back until it is opposite the lug E before it moves the cam cylinder. Then the shanks of the needles strike the latch C, and pass up over the lug E, then down the cam J, and up the cam K, striking the latch B, throwing it back, when the shanks of the needles again rest on the shoulder H, and so remain until operated on again by the cams as they pass around.

Care should be taken never to undertake to reverse the machine while any of the needles are in the cams, as it is almost sure to



lock or stick fast by the point of one or the other of the lugs D or E, catching the shank of the needle that is just passing out of the cams.

### To Take out Needles,

Pull them straight up, as far as they will raise, then lean them forward at the top, when the shank will raise right out of the groove. If you wish to take out needles while the work is on, put the stitches on the adjoining needles.

### To Throw Needles Out of Action,

Raise them straight up, as far as they will go, leaving the stitch on them. This throws the shanks of the needles above the cams, so that they are not operated on by the cams.

### To Take the Machine Apart,

Take out all the needles, and remove the two screws that hold the needle cylinder to the bed plate. You can then lift out the needle cylinder; then lift off the cam cylinder, and then the cog ring. The machine should be taken apart often and thoroughly cleaned, and kept well oiled with good *sperm oil*.

### Take-up Spring and Lock.

On our improved machine, the take-up spring is coiled on an arbor, the arbor is held by a thumb nut, see Figure 1. By loosening the nut, the arbor can be turned either backward or forward, so as to make the spring stronger or weaker as may be desired. For heavy yarn the take-up spring must be stronger, and for light yarn weaker. When the take-up spring is hooked on to the yarn, as shown in Figure 1, it throws the lock 27 back, and holds the yarn from taking off the bobbin until the spring is drawn down. The take-up spring is used *only* while knitting back and forth, as in knitting heels and toes, flat web, etc.

### Yarn Carrier.

The yarn carrier 13, Figure 1, should be properly adjusted to suit the yarn you are using, which is done by turning the little thumb-screw on the upright piece in front of the carrier. This throws the yarn carrier closer to or farther from the needles.

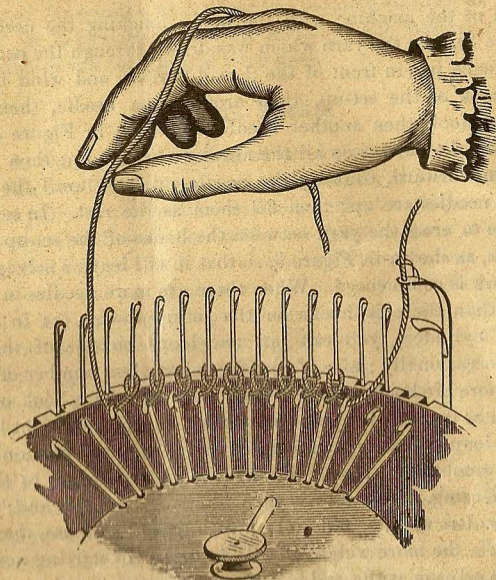


Figure 3.

### Winding the Bobbins.

Begin at the bottom or large end and wind in the form of a cone, and be careful to wind it smooth and even, and not too tight. After it is filled at one place, be careful not to wind below that again. The bobbin should be wound so that the yarn will come off without binding in the least. When the bobbin is wound uneven, it will make the machine run badly when every thing else is right. Hence great care should be taken in filling the bobbin.

### To Set up New Work.

Place the bobbin on one of the pins at the back of the machine, pass the yarn up through the eye of the yarn stand (23, Figure 1), directly over the bobbin, and pass it through the little lock (27, Figure 1), on top of the arm, then down through the eye in front of the lock, then through the bent wire on the yarn carrier (13, Figure 1), and through the eye in the yarn carrier; draw through about one yard of yarn; now take the set-up device 29, place it



inside of the machine with the hooks touching the needles, (see Figure 3), take the yarn which was drawn through the carrier, and commence just in front of the thread carrier, and wind it around one hook of the set-up, then around one needle, then around another hook, then another needle, as shown in Figure 3, and so on, until the yarn is on all the needles that are up; then turn the machine forward, allowing the needles to knit, until the balance of the needles are up; then fill them as the rest. In setting up, be sure to cross the yarn between the hooks of the set-up and the needles, as shown in Figure 3, so that it will leave a selvage where the work is commenced. When there are more needles in the machine than there is hooks on the set-up device (as in the 100 needle cylinder), you can put two loops on one of the set-up hooks occasionally; also, if you are using a less number of needles than there are hooks on the set-up, you can miss a hook occasionally, so as to make it come out evenly. Hang the weight hook 30, to the loop on the under side of the set-up, and put on the required amount of weight; this will be in proportion to the yarn you are using. For coarse yarn use more weight, and for fine yarn use less weight; and so in knitting tight or loose, the shorter the stitch, the more weight it will require. In starting new work, where a selvage at the end is not required, you can do so without the set-up device, by simply tying the end of the yarn to the weight hook, and pass it (the weight hook) down through the machine, say three or four inches. Pass the yarn over three or four needles, first outside of one, then inside of the next, and so on, then down over the weight hook, then over more needles, and so continue until you have yarn on all the needles. Put on sufficient weight, and you can proceed to knit.

### To Knit Tight or Loose.

The length of the stitch is governed by means of the nut 16, on the top of the tension screw at the side of the cam cylinder. By turning the nut, it raises or lowers the V-shaped cam J, (see Figure 2), which governs the distance that the needles are carried down in forming the stitch. By turning the nut to the right, it raises the cam and knits tight. By turning it to the left, it lowers the cam and knits loose. The pointer at the side of the tension screw will indicate on the gauge the distance that the cam is raised or lowered. If the stitch is too **tight**, the work will climb

to the top of the needles, and either fail to make stitches or break the yarn. It is important that the length of the stitches should be regulated to suit the kind of yarn used.

### To Knit Socks.

Set up on the set-up device, as directed for new work. If you wish it ribbed at the top, take out every third or fourth needle. Knit twenty-five or thirty times around, or the length you wish to have the top ribbed, then put in the needles that were taken out for the ribbed top, and take the stitch below the one on the adjoining needle, and put it on the needle just put in to form a new stitch, then knit the length required for the leg. The ankle may be narrowed by gradually tightening the stitch, (see instructions for knitting tight and loose.) When the leg and ankle is knit, raise one-half of the needles opposite the yarn carrier, as shown in Figure 1. This throws the needles that are raised out of action. Now put the yarn in the take-up spring on the yarn stand, as shown in Figure 1, then knit across, running the cam past the needles that are raised up, far enough to allow all the needles that are in action to make their stitch; now raise one more needle on the same side that the yarn carrier is, and knit backward to the opposite side of the machine, and raise up one needle on that side and knit forward again; and so on, back and forth, raising a needle every time, until you have raised up about ten or more needles on each side; always allowing the yarn to pass around the outside of the needle just raised up, to prevent any open places in the heel. Now put down one needle on the opposite side of the machine from the yarn carrier and knit across; then put one down on the other side and knit back again, and so on, putting down one needle every time you knit across, until the ten or more needles that you have raised up for the heel are all down again, or, to where you commenced to make the heel. Always raise the needles on the same side of the machine that the yarn carrier stands, and put them down on the opposite side of the machine from the yarn carrier, otherwise you will have small holes where the heel gains. Now put all the needles down, and continue to knit around (as in knitting the leg), to form the foot. When you have knit the foot the proper length, proceed to knit the toe. This is done the same as in knitting the heel, but on the opposite side of the machine from that on which you made the heel. In-



stead of raising up ten needles on each side as you knit back and forth, you must raise up all but about six or eight needles. Then put them down again as in making the heel, and when you get them all down to where you commenced to make the toe, put all the needles down and run the work off the machine, by breaking the yarn off at the carrier (leaving enough to finish with), and turn the machine once around, when the work will drop out, shaped as shown in Figure 4, leaving only to bring the raw edges together, and close them with the knit stitch as shown in Figure 5, when your sock is complete. As the heel and toe are being formed, the weights do not sufficiently hold down the work. The hooks arranged with pulleys are intended for this purpose. The two outside hooks are to be hooked on the outside of the work, about one inch from the last needle raised up and the two middle hooks, so that they will be about equal distance apart. Put on sufficient weight and commence narrowing for the heel (as described in making the heel.) Before commencing to widen back, the two middle hooks must be hooked up near the needles again. When the heel is complete, the hooks can remain while knitting the foot. When the foot is complete, the hooks can be removed and used in making the toe. In knitting the heel and toe, care must be taken that the work is properly held down, so that all of the needles complete their stitch. If the last needle, in knitting across fails to make its stitch when you reverse the machine to knit back, you will be liable to drop a stitch or leave an open place where the heel gains. But, if the work is evenly held down, you will avoid that difficulty.

### To Knit Small Socks.

Small socks can be knit by taking out every other needle, forming the sock about one-half the size of the cylinder, being careful to have the stitch as short as possible. For sizes between this and the larger size, you can take out every third, fourth, or fifth needle. However, the size can be regulated to some extent by the size of yarn you use.

### Long Stockings.

Ladies' hose, or long stockings, can be shaped very nicely, by commencing the work rather loose at the top, and gradually tightening the stitch to the ankle, making the heel and toe the same as

for socks. A perfect shaped stocking can be made by commencing with all the needles in the machine and knitting six or eight inches; then take out one needle on the front side of the machine, putting the stitch over the adjoining needle, and knit three or four times around; then take out one more needle on each side of the one first taken out, leaving three needles between, the same as in ribbing; then knit around the same number of times again, and take out two more needles as before, and so continue until the work is ribbed all the way around; then knit the length for the ankle, and raise one-half of the needles to make the heel, the same as for socks, see Figure 1. Before knitting the heel, the needles that were taken out for the purpose of narrowing should be put in again on the side you make the heel, so as to make the heel close and more firm. After the heel is made, the needles should be taken out again so as to make the foot ribbed, and make the toe on the same plan that you made the heel. Stockings can be made by knitting the top circular on all of the needles for about eight inches, then commence narrowing by taking out one needle on the front side of the machine; then knit three or four times across, flat-web (see instructions for knitting flat-web) full width of the machine; then take out two more needles next to the one already taken out, and so continue to knit the flat-web, taking out needles until you have narrowed to the size for the ankle. Knit the length desired for the ankle, and then knit the heel in halves, each half to be knit on each outside, one-fourth of the needles of the flat-web, raising the rest of the needles up out of action while knitting the heel. Knit the flat-web the desired length for the foot, and make the toe on the middle half of the needles. Close up on the back, and you have a perfect formed stocking. Small children's stockings can be made in flat-web, taking out the needles not needed on the front side of the machine. Knit the desired length for the calf of the leg, and narrow for the ankle by taking the stitch from the two outside needles, putting it on the adjoining needle. Take out the empty needles and, knit three or four times across; then take out another needle on each side of the web, and so continue until you have narrowed the amount desired, then knit the length desired for the ankle. The heel is to be made in halves on each outer edge of the web; say you have sixty-eight needles at the ankle, one-fourth would be seventeen; raise up all the needles but the seventeen on the left-hand side of the web, knit one-half of the heel on the seventeen needles not



raised up, by narrowing down to about eight needles, and widen back the same; (to narrow down for heel, you raise a needle next to those already up every time you knit across and back, leaving the stitch on the needle; and to widen back, put down one needle every time you knit across and back); now put down the needles and run across and make the other half of the heel on the opposite side of the web; then knit the web the proper length for the foot, and make the toe on the middle half of the needles. Run off, and you have a perfectly formed stocking by closing up on the back.

### Cap Heel.

After knitting the length for the leg, raise up one-half of the needles and knit twenty-seven times across flat-web on the other half of the needles; now raise up all the needles but fourteen on one side of the flat-web; knit two or three times across on the fourteen needles, narrowing each time on the side next to the center of the flat-web, proceed the same way on the fourteen needles on the opposite side of the flat-web; raise up the eight center needles of the flat web, now run off the work from the fourteen needles on each side of the eight center ones that are raised up, then knit across on the eight center needles, taking up a stitch on each outside needle from those thrown off each time you knit across, and so continue until the stitches thrown off are all taken up, then put the loops from the edges of the flat-web over the empty needles on each side of the cap and the heel will be complete, then proceed to knit the foot and toe as described in knitting socks.

### Perpendicular Heel.

After knitting the leg long enough, raise up one-half of the needles, and hook the take-up spring on to the yarn and knit forward and backward flat-web, until your heel is long enough, being thirty-six times for a common sock; now run off the heel, and take up the loops on the selvage edges of the heel web and put them on the empty needles; then put down all the needles and proceed to knit the foot and toe. After the sock comes from the machine, you will have to close the heel on the bottom with the knit stitch, see Figure 5. The round heel, as described in knitting socks, is preferable to either the perpendicular or cap heel. The toes of socks and stockings can be made by raising one-half of the

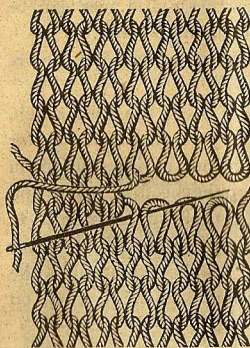


Figure 5.



Figure 4.



needles; knit back and forth, narrowing down to give the proper shape; now put down the other half of the needles and narrow in the same manner, run the work off, and close the loops of the two sides together. This makes a very good toe, but the mode of making toe as described in knitting socks is preferable. To knit double heels and toes, use two threads, or, use heavier yarn. Old socks and stockings may be footed, or new heels and toes can be knit in old socks in less time than to mend them by hand.

Figure 4 shows the sock as it comes from the machine, before being closed up at the toe.

Figure 5 shows the manner of closing up with the knit stitch. Thread a common darning-needle with the yarn that you left for closing up with. Leave the sock right side out as it comes from the machine. Now 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 on the *first* side, and *out* through the next stitch on the same side; and so on, as shown in the cut.

### Balmoral Work.

Select the colored yarn to be used, and wind each color on a separate bobbin; set up as for plain work, and knit the number of times around desired for the first color; then break off the yarn and tie on the next color desired, and knit as many rounds as you wish of that color, and so on, to suit your fancy.

### Flat-web.

Take out all the needles except those to be used; now loosen the thumb-nut in the setting-up device and slide it to the side; this is to cause the weight to hang in the center of the work, and draw down evenly. Place the set-up device in the machine, with the thumb-nut in the center of the needles used, and set up on the needles remaining in the machine, as you would for other work, see Figure 3. Put the yarn in the take-up spring as for knitting heel and toe, see Figure 1. In reversing the crank in knitting flat-web, the yarn carrier moves the length of the cam before the cam moves, consequently you have that amount of slack yarn

in making the changes in knitting flat-web. The take-up spring should be sufficiently strong to take up the slack yarn in reversing the direction of the crank. In knitting forward and back, turn far enough to allow all the needles to make their stitch. Flat-web, the full width of the machine, can be made by leaving out only one needle, and as the yarn carrier approaches that point, raise a sufficient number of needles for the cam to pass without operating on them. Do the same in knitting in the opposite direction, and you will have a strip from twelve to fifteen inches wide, with selvage edges.

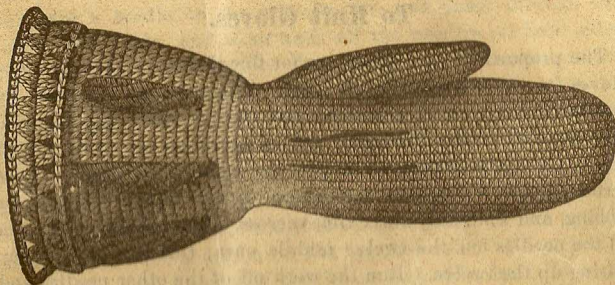


Figure 6.

### To Knit Mittens.

For plain mittens, set up the same as for knitting flat-web. Rib the length required for the wrist, then put in the other needles that were out for the rib and knit the length required for the hand, and finish the end the same as for toe of small stockings on the middle half of the needles used. To make the thumb take out all the needles from the machine but one. Put one stitch from each side of the web, the right distance from the wrist, to commence the thumb on that one needle and knit once across; then put a needle into the machine on each side of the one already in; put a stitch on each needle from the sides of the web, and knit once across; put another stitch on side needles from the sides of the web and knit across again, making twice across on the two needles first put in; then put in two more needles as before, and put stitches on them from the sides of the web and



knit three times across, each time putting on a stitch from the side of the web, then put in two more needles and knit twice across as before; and so continue putting in needles, every time knitting two or three times across, until you have sufficient width for the thumb; finish the end the same as toe of small stocking; close up the thumb and hand, and you have a finely shaped mitten. It requires from fifty to sixty needles for the hand of mitten, and for the thumb, from eighteen to twenty-five needles. Mittens can be made with a very neat wrist, by using some of the fancy stitches described hereafter.

### To Knit Gloves.

The proportions here given are for fine three-ply yarn, to make gloves for common sized lady's hand. The size may be varied by the size of the yarn, or the number of needles used. Set up with sixty needles on the 100-needle cylinder, taking out every fourth needle to make ribbed work for the wrist; knit twenty times across for the wrist; put in the needles that were taken out for ribbing, and knit sixty-three times across. Run off the work from all the needles but the twelve middle ones; this can be done by raising up the twelve. Run the work off of the other needles and take them from the machine. Put in three more needles on the right hand side of the twelve already in, from each of which, loop yarn to the weight-hook, then knit twenty times across, and narrow off the same as for toe of small stockings. This completes the cloth for the little finger. For the next finger it will require eighteen needles. Put on sixteen stitches (eight from each side of the web), and loop yarn from those that have no stitch on, to the weight-hook, and knit twenty-seven times across, and narrow the same as for little finger, and run off. For the middle finger, use twenty needles; put on eighteen stitches (nine from each side of the web), and loop yarn to the weight-hook from the remainder of the needles as above, and knit thirty-two times across, and finish the same as for the other fingers. For the fore-finger, use eighteen needles, putting the remainder of the stitches from each side of the web on them, and knit twenty-seven times across, and finish the same as the other fingers, when you will have the cloth for the fingers completed. Knit the thumb the same as for mittens; close up with the knit stitch, and you have a finely formed

glove. Gloves made by this rule are rights and lefts by putting in the needles having no stitch on them, (or the needles from which you loop yarn to the weight-hook), either on the right or left hand side of the needles used.

### Fringe.

Fringe can be made in double strips, by using the number of needles desired for the width of the fringe on opposite sides of the machine. Say you have six needles on each side of the machine, commence by looping from a needle to the weight-hook, then over a needle on the opposite side and down through the weight-hook again, and so on until all the needles on both sides of the machine have a loop on them: knit once or more around, then loop the yarn across the machine, back and forth, over the needles opposite each other, and knit around once or more again, according to the thickness of the fringe desired. When taken from the machine you can cut it in the center, making two strips of beautiful fringe. Long fringe can be made by having the number of needles for the width of fringe desired on one side of the machine, and one needle on the opposite side; loop across as if there was even number of needles on each side, by putting all the loops on the single needle; then knit around as in making short fringe. Fringe border can be made on the edge of a web (as for tidies, etc.), by putting two or three needles some distance from those used in the web, then knit clear across all the needles.

### Cord.

To make cord, two, three, or four needles may be used. Set up by looping yarn from each needle to the weight-hook, and knit around as in knitting circular work, using the take-up spring.

### Tidy Stitch.

The tidy stitch is formed by taking a stitch from one needle and putting it over the next one; knit twice around, and change the stitches again from one needle to the other. This kind of work can be made either in fancy patterns or plain open work.



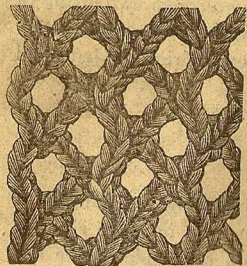


Figure 7.

The following are a few of the many ornamental stitches that can be made on the Franz & Pope Knitter.

Figure 7 is made by setting up as for ordinary flat-web, knitting one or more times across, then take the stitch from every third needle (commencing at the second one from the edge), and put it on the next needle to the right; knit across and back, this forms new stitches on the empty needles; then take the stitch from

every third needle (commencing at the third one from the edge), and put it on the next needle to the left, then knit across and back as before, then take the stitch from every third needle commencing at the second again, and put them on the next needle to the right as in first round; knit across and back again, then loop to the left again, and so on. This open work may be made in figures of any pattern, by leaving plain or other stitches between, to form the design, and when knit with cotton yarn, it makes beautiful tidies, etc.

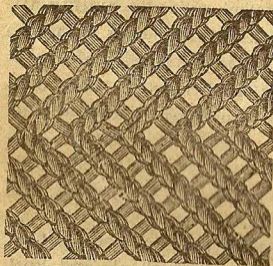


Figure 8.

Figure 8 is made by setting up as for flat-web. Take the stitch from every other needle, and put them on the next needle to the right, and knit once across, then take the loop (or half stitch) from the same needles again, and put them on the next needles to the right, as before; knit once across, and loop over to the right again, as before, and so on, any number of times to suit your design. Then

take the loop from the same needles as before, but put them on the next needle to the left, and knit once across, and so continue to loop to the left, and knit across as many times as you did to the right. This stitch is also nice for tidies, when knit with cotton yarn; and when knit with woolen yarn, makes beautiful trimming for other articles, such as Capes, Jackets, Hoods, Skirts, etc., etc.

To knit stitch shown in Figure 9, set up as before. Take the stitch from the second needle, and put it on the third needle, and take the stitch from the fourth needle and put it on the third needle also; now leave as many needles with the stitches on, as you want knit

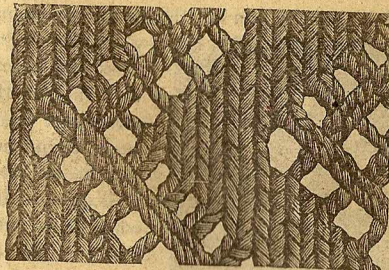


Figure 9.

plain, say three; now take the stitch from the eighth needle and put it on the ninth needle, and take the stitch from the tenth needle and put it on the ninth needle also; then leave needles with stitches on, for plain work again, and so on, across the web; then knit across and back. Now take the stitch from the third needle and put it on the fourth, and from the fifth and put it on the fourth also, and so on, across as before; then knit across and back, and put stitches over again, by taking them from the fourth and sixth needles and putting them on the fifth, and so on. Knit in this way any number of times, say four times; then reverse, by putting the stitches back again, as shown in the cut. This design may be varied to suit the taste of the operator.

For Figure 10, set up on any number of needles, and take the stitch from every other needle, and put them on the next needle to the right; knit once across, and take the loop from the same needles, and put them on the next needle to the left; knit across, and loop to the right again, and so on, first looping to the right, and then to the left. This stitch makes very pretty work for children's sacques, etc.

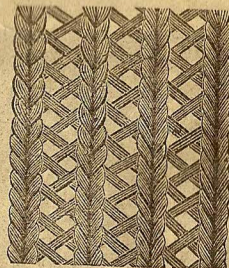


Figure 10.

For Figure 11, set up as before. Throw the stitch off the second needle, and take the stitch from the fourth needle and put it on the second needle, and put the stitch that was thrown off the second needle on to the fourth needle. Take the stitches from the sixth and eighth needles, and



cross them as you did the second and fourth, and so on, across the web; then knit across and back. Then cross the stitches again, commencing with the fourth and sixth; now knit across and back, and cross the stitches again, commencing with the second and fourth, as at first, and so continue. This stitch makes a very beautiful tidy, when knit with fine yarn and pretty loose, on the 100-needle cylinder, and is also nice for other articles.

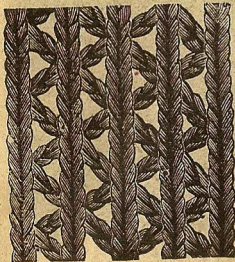


Figure 11.

Figure 12 is made nearly the same as Figure 11, but looks quite different when finished. Cross the stitches, as in Figure 11, commencing with the second and fourth, and so on, across the web; knit across and back, and cross the stitches again as before, on the same needles, and so continue all the way through.

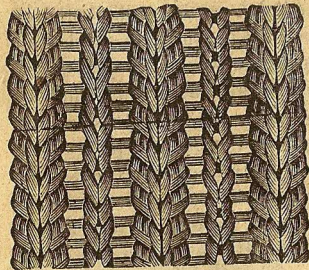


Figure 12.

For Figure 13, set up as for flat-web, on thirteen needles. Take the stitch from the second needle, and put it on the third needle; then take the stitch from the sixth needle and put it on the fifth needle; then take the stitch from the eighth needle and put it on the ninth needle; then take the stitch from the twelfth needle and put it on the eleventh needle; now knit once across; then take the stitch from the third needle and put it on the fourth needle; then take the stitch from the fifth needle and put it on the fourth needle; then take the stitch from the ninth needle and put it on the tenth needle; then take the stitch from the eleventh needle and put it on the tenth needle; then knit once across. Now take the

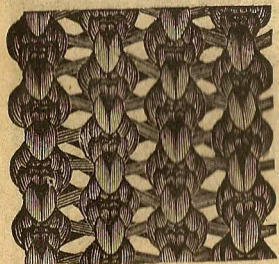


Figure 13.

loop from the third needle and put it on the second needle; and take the loop from the fifth needle and put it on the sixth needle; then take the loop from the ninth needle and put it on the eighth needle; then take the loop from the eleventh needle and put it on the twelfth needle; and knit once across. Now take the stitch from the second needle and put it on the first needle; then take the stitch from the sixth needle and put it on the seventh needle; then take the stitch from the eighth needle and put it on the seventh needle; then take the stitch from the twelfth needle and put it on the thirteenth needle; and knit once across. Then repeat from the first, again. This makes a beautiful stitch for Tidies, Mats, Hoods, etc.

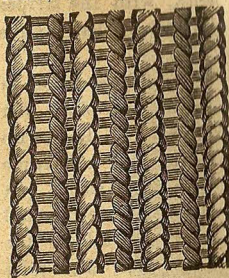


Figure 14.

To knit Figure 14, take the stitch from every other needle, and put them on the next needle to the right, and knit once across. Then put the loop that has formed on the empty needles over the next needle to the right, leaving them also on the loose needle, (the loop will then be over two needles); do this all the way across the web, or around the machine, if all the needles are in; then knit once across, and put the loop that has formed on the loose needles over the next needle to the right, again as before, and so continue, and you will have a beautiful double rib, which is very pretty for Cuffs, and Wrists of Mittens and Gloves, etc.



Figure 15.

Figure 15, or Afghan stitch, is made on the 72-needle cylinder, by taking out every other needle; set up as for common flat-web, and knit across and back; now raise up every other needle, and knit across and back; then put down the needles that are up, and raise the other half, and knit across and back; then put down the needles, and raise the others, again as before, and thus continue, and you will have a very nice fancy stitch. This kind of work can be made in strips of different col-



ors, and joined together for Afghans, Robes, and a variety of other articles.

For Figure 16, use two colors of yarn, and set up as for Figure 15. Knit across and back; then raise up every other needle, and knit once across; then put down the needles that are up, and raise up the other half of the needles, and change the color of the yarn, and knit once across; and so continue, changing the color of the yarn every time you change the needles, and you will have striped work, with the stripes running up and down, or lengthways of the web.

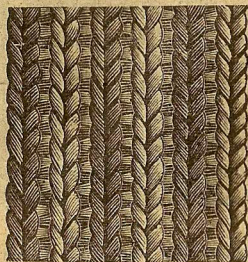


Figure 16.

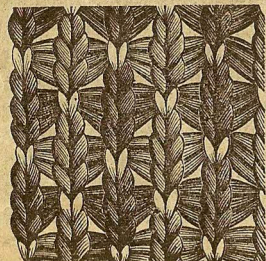


Figure 17.

the blue yarn again; then raise up the first half of the needles again, and knit three times across with red yarn, as at first, and thus continue, and you will have beautiful spotted work. This stitch may be varied by knitting twice across with each color, changing needles when you change the color. This makes beautiful Mats, Hoods, etc., etc.

The following illustrations show a few of the many articles of wearing apparel that can be knit on our machine. Some of these designs we have obtained from "Harper's Bazar," in which may be found a great many new designs of knitted goods, that are perfectly practicable to make on the "Franz & Pope Knitter."

### Cuff.

Cuffs may be knit and trimmed in various ways, either plain or fancy. A little ingenuity in the operator will enable one to make them to suit any person.

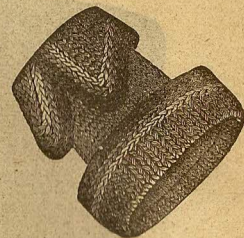


Figure 18.

### Overshoe.

This overshoe is made in such a manner as not to crush the bows or lace trimmings of slippers. The



Figure 19.

front, which widens considerably toward the top, can be fastened to one of the three buttons which close the shoe on the ankle in front, or remain open there, as may be required. The shoe is knitted closely of double zephyr or coarse knitting wool, and trimmed to suit the taste of the wearer. The sole may be knit separately and sewed into shoe, or made of heavy felt cloth, and sewed on. Figure 15, or Afghan stitch, is best for making overshoes.

### House Shoe.

This shoe is knitted with gray zephyr worsted, with either of the fancy stitches desired. The toe and the trimming on the





Figure 20.

upper edge are knitted with black and white worsted. Sew on a red flannel sole, the edges of which are folded on the under side three-tenths of an inch wide, and sew a sole of thick felt to the flannel sole.

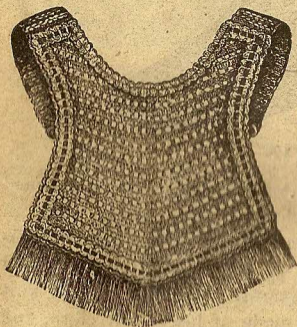


Figure 21.

### Bib.

This bib is knit with coarse, white tating cotton. The foundation is knit in open-work (Figure 10 or 11.) The border on the outer edge is knit in open-work, (Figure 7), and underlaid with narrow blue silk ribbon. Fringe of white cotton is knit to the under edge of the bib. The shoulder tabs are knit with any close stitch, either plain or fancy.

### Child's Waist.

This waist is knitted with medium sized knitting cotton, in either of the fancy stitches desired; and trimmed on the upper

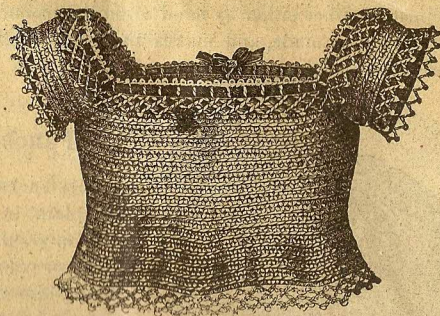


Figure 22.

and under edges, and on the sleeves, with a row of knitted lace or open-work, through which a red ribbon is drawn, as shown by the illustration. Furnish the back with buttons, and button loops for closing. This makes a very pretty waist for a child from one to two years old.

### Lady's Girdle.

This girdle is knit with red zephyr worsted. It is knit in flat-web, and shaped by narrowing and widening on the sides. The



Figure 23.



strips are joined together either by hand or on the machine. It is very simple and easily made, and makes an article of great comfort to the wearer in cold weather.

### Fanchon.

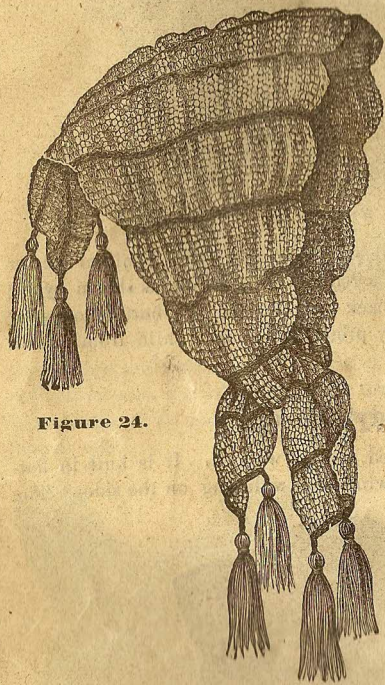


Figure 24.

tight, without widening, and again knit with the white wool. After alternately knitting one close blue stripe and one looser white stripe, (the latter is always widened in the manner described), eight times each, the fanchon has reached one-half of its size; then knit one blue stripe for the middle; then knit eight more white and eight blue stripes for the other half. At the end of every second round of each white stripe, however, one stitch is narrowed, so that, in the last blue stripe, twenty stitches are again on the needles, which cast off after knitting the last round. Fi-

ally, trim the fanchon on the middle of the back, and the ends with tassels of blue worsted.

### Cap.

This light, flexible cap for elderly ladies is designed to be worn under the bonnet. The *original* is knit with purple zephyr worsted and white split zephyr worsted; the latter forms puffed stripes, and separated by narrow purple stripes knitted closely; (any other suitable color or material will answer.) Knit the puffed stripes first, by knitting about five times across and back, tight; then about ten times across and back, loose; and so continue to knit, five tight and ten loose, until you have them the proper length to reach from one side over the top to the other side, making each strip a little shorter every time, to give the proper shape from front to back when united. Now knit

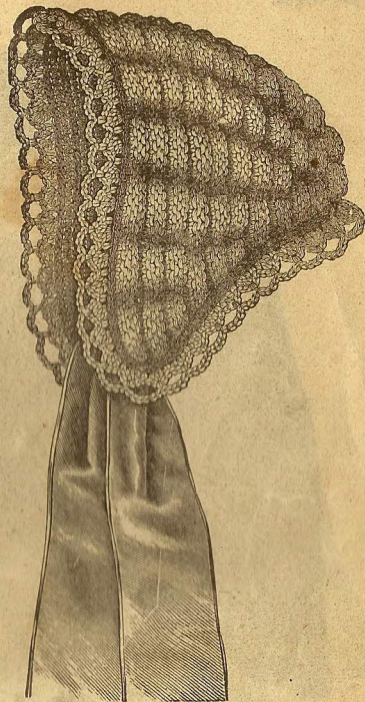


Figure 25.

these strips together with the purple zephyr, by setting up on five or more needles, very tight, and take two strips of the puffed work, put a stitch from the edge of each strip on the outside needles; knit across and back, and take up another stitch from each strip as before, and so on, until the two puffed strips are united the whole length with the plain purple. Then unite another puffed strip to the two, in the same manner, and so on, until they are all knitted together; then knit a strip of the plain purple all the way around the edge, and finish the edge with any



of the fancy open stitches, knit in white zephyr. The ties may be knitted with one strip of white puffed work, and plain purple edges.



Figure 26.

### Lady's Jacket with Basque.

This jacket is knitted in flat-webs, narrowing and widening to form the shape. It is knit of zephyr worsted in two shades of violet, the darker shade forms the basque and cuffs. The trimming is knit with zephyr worsted, with any of the fancy stitches desired. Instead of the flowing sleeve, any other sleeve pattern that may be desired can be used; the sleeve is then furnished with a small cuff, made of the darker shade of worsted. Finally, make

the button-holes, and set on the buttons, as shown by the illustration. Ladies' Jackets can be made in a variety of styles.



Figure 27.

### Mantelet.

This mantelet is knitted in flat-webs, with white zephyr worsted, and is edged with trimming of violet zephyr worsted; the long slashes in front are trimmed and held together with violet silk bows. You can use any other colors or material, and knit it either plain or with some of the fancy stitches to suit your taste.



## Gentleman's Chest Protector.

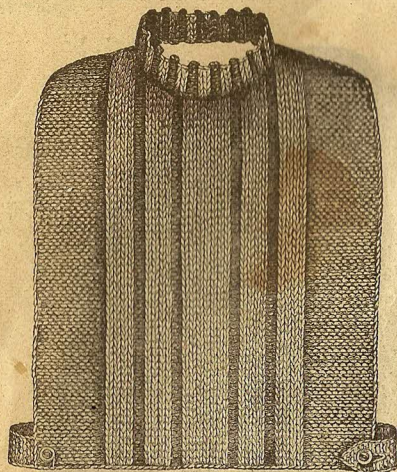


Figure 28.

This chest protector is knit with white knitting wool. It may be knit plain, with strips made of any of the fancy stitches, and sewed on, or it may be knit in strips, and knit together with a strip made of some other stitch. It is very simple, and can be made to suit the wearer, as will be seen by the illustration.

## Undershirts.

Follow the directions for knitting flat-web. Knit a strip three yards and a third long, for man's size. Cut the strip in two equal lengths, and join them together on the edges, so as to have a web pass over each shoulder; leaving them open at the neck, and a little way down the front; and join the sides together from the bottom up to the place for the arm-hole. Now set up for the sleeves the same as for socks, knitting the wrist-bands ribbed, and widen out toward the shoulder, by gradually loosening the stitch; then sew the sleeves in, and bind off the bottom and around the neck.

## Drawers.

Set up the same as for socks, and knit the ankles ribbed; then knit plain circular web to a little above the knee; now take out one needle, and knit flat-web the rest of the way up to the top of the drawers. Knit two webs of this kind; now knit a flat-web the length of the body of the drawers, and raise up one-half of the

needles, and knit a wedge-shaped piece on the other half of the needles, by taking out one needle occasionally, next to those that are raised up, until you have narrowed down to two or three stitches; then put down the other half of the needles, and knit down in the same manner. Now insert this web between the other two webs in the back of the drawers, and the wedge-shaped points down the open space in the legs, forming gores, and making the legs larger at the top. The waist-band can be knitted and sewed on, but a better way is to bind off the top and front with good strong drilling.

## Shawls.

Shawls are knit in flat-webs, and joined together; they can be made in a variety of styles, and trimmed with fancy border and fringe, to suit the taste.

## Skirts.

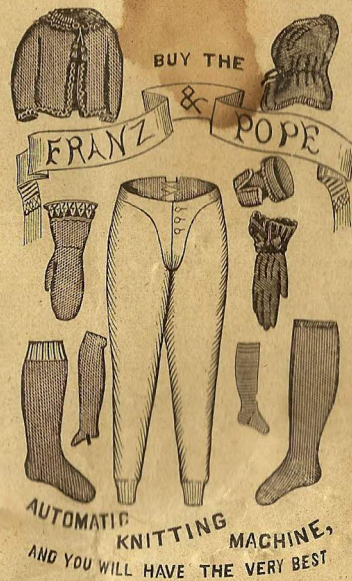
Knit in flat-webs, narrowing them to give the proper shape; they may be knit plain or fancy, and joined together either by hand or on the machine. Knit the waist-band with stitch, Figure 15, and knit a strip with stitch, Figure 8, of heavy zephyr some other color than the skirt, and sew it on around near the bottom, and bind off the bottom. A little ingenuity in the operator, will enable one to make skirts in any desired style.

The variety of articles of wearing apparel that can be made on the Franz & Pope Knitter is so numerous, that it would be impossible to give a full description of all of them. It knits Socks, Stockings, Leggins, Mittens, Gloves, Wristers, Cuffs, Toilet and Lamp Mats, Carriage and Door Mats, Collars, Muffs, Scarfs, Shawls, Capes, Sacks, Caps, Hoods, Nubies, Jackets, Shirts and Drawers, Suspenders, Watch and Curtain Cord, Tidies in an endless variety, Afghans, Cradle Blankets, Bedspreads, etc., etc. In short, it knits any thing from a Watch Cord to a Carriage Robe; and in conclusion, we will only add that, in the foregoing pages, we have given illustrations and instructions for making a few of the many articles that can be produced on the Franz & Pope Knitter. While the machine may be made useful in making all of the fancy articles described, and many others not mentioned, we consider its adaptability to the manufacture of *substantial hosiery* as its greatest recommendation. An ordinary operator,



with a reasonable amount of practice, can make from twelve to twenty pairs of good substantial socks in ten hours. While a good operator, running the machine as a business, can knit from *Twenty-five to forty* pairs in a day. Considering the small amount of labor required in finishing after the socks come from the machine, it will readily be seen that there is no other machine that can manufacture as cheaply as the Franz & Pope Knitter. All articles made on a sewing machine must be cut and fitted, whereas, there is a uniformity in the manufacture of all *knit goods and hosiery*, that enables the operator on a Knitting Machine to go ahead with her work, with the assurance of finding sale for her goods whenever she desires to dispose of them, with a certainty of finding a recompense for her labor. By carefully following the instructions given, it will not be difficult for any person with common ingenuity to operate the Franz & Pope Knitter with entire success. It is usually for want of proper care in looking after the most simple operations of the machine, that the new beginner gets into difficulty. By observing carefully the instructions given for setting up the work, and regulating the length of the stitch, etc., there will be no difficulties that a little perseverance and patience will not overcome.

Each improved machine is furnished with our Patent Setting-up Device, two Needle Cylinders, (one for 72, and the other for 100 needles), one complete Bobbin-winder, Shaker-swifts, Heel-holder, three Bobbins, eight extra needles, Buckle, Weights, Screw-driver, Oil-can, bottle of Oil, Work-hook, and Book of Instructions.





# CATALOGUE AND PRICE LIST

## OF PARTS OF THE

# Franz & Pope Knitting Machine.

No.	Name of Part.	Price Each.	No.	Name of Part.	Price Each.
1	Ped Plate.....	\$5 00	32	Large Weight.....	25
2	Cog Ring.....	1 50	33	Heel Holder.....	1 10
3	Cam Cylinder.....	5 00	34	Tension Screw Bearing Screw.....	05
4	Needle Cylinder, 12 g.....	1c a groove	35	Lower Cam and Cam Lutz Screw.....	05
	" " 18 g.....	4 1/2c	36	Yarn Carrier Screw.....	07
	" " 24 g.....	5c	37	Needle Cylinder Screw.....	07
	" " 36 g.....	6c	38	Crank Screw.....	07
5	Crank Wheel.....	1 00	39	Crank Wheel Cap Screw.....	15
6	Crank Wheel Cap.....	1 00	40	Table Clamp Screw.....	15
7	Crank.....	50	41	Needles.....	05
8	Table Clamp.....	38		Needles per dozen.....	50
9	Handle.....	07		Needles per hundred.....	3 00
10	Handle Rivet.....	07	42	Bobbin.....	05
11	Table Screw.....	10	43	Oil Can.....	15
12	Bobbin Pin.....	5	44	Screw Driver.....	15
13	Yarn Carrier, improved.....	1 50	45	Work Hook.....	10
14	Tension Screw.....	15	46	Spooler Clamp.....	60
15	Tension Screw Nut.....	07 1/2	47	" Crank Wheel.....	50
16	Tension Screw Thumb Nut.....	07	48	" Pulley.....	25
17	Tension Screw Bearing.....	15	49	" Handle.....	10
18	Tension Cam.....	75	50	" Rivet.....	10
A	Left Cam Lug.....	15	51	" Wheel Rivet.....	10
B	Right Cam Lug.....	15	52	" Table Screw.....	15
C	Left Lower Cam.....	30	53	" Spindle.....	25
D	Right Lower Cam.....	30	54	" Belt.....	10
E	Cam Latch.....	6		Book of Instructions.....	50
21	Yarn Stand Rod.....	25		Oil per bottle.....	25
22	Yarn Stand Top.....	50		Oil per dozen bottles.....	1 50
23	Take-up Spring.....	07		Shaker Swifts.....	1 00
24	Take-up Spring Stud.....	15		Swift Hub and Screw.....	50
25	Take-up Spring Nut.....	07		Latch Guards for Yarn Carrier.....	15
26	Take-up Lock.....	07		Single Heel Hooks.....	07
27	Buckle.....	25		Double Heel Hooks.....	15
28	Set-up Device.....	1 10		Heel Holder Tops with Pulleys.....	37 1/2
29	Weight Hook.....	15		Heel Holder Tops without Pulleys.....	15
31	Small Weight.....	15			

Before ordering parts, consult diagram and list of parts, and order according to it. The above prices are for one piece of a kind only. Some of the above parts can be sent by mail cheaper than by express; so in ordering, send money enough, in addition to the price, to pay postage, at the rate of one cent for every ounce. The postage on 12 needles, six cents; 100 needles, thirty cents. In ordering parts, please give the number of your machine, which will be found on the top of the cam cylinder.

