

Cable Stitch Lesson

by Arenda Holladay



Welcome to the first in an ongoing series of *Stitch Anatomy* technique articles. In each issue, we will feature another stitch. Each article in the series will provide a “lesson” for a stitch pattern. Each lesson will discuss the stitch pattern in detail, any potential problems in working it and tips for improving the appearance. A pattern for a pillow using the stitch pattern will follow, including information on the steps involved in designing with the stitch pattern. Also included will be a worksheet for anyone who wants to try designing a similar pillow on their own using different yarns, a different pillow size or a variation of the pattern.

ABOUT THE CABLE STITCH

Contrary to their complicated and highly textured appearance, cables are very easy to knit. All are worked pretty much the same way.

Stitches are placed on a cable needle and held in reserve. Stitches to the left of those placed on the cable needle are worked first. Then the stitches on the cable needle are worked. If the stitches on the cable needle are held in reserve at the back of the work, the cable crosses to the right. If the stitches are held to the front, the cable crosses to the left. The majority of cable patterns are a combination of knit and purl stitches; the cables are knit and the background is purled so that the cables appear embossed.

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Choosing Appropriate Yarn

Many a beautiful cable design has been ruined by the yarn choice. Very dark, variegated or novelty yarns can obscure the design. Cable patterns need to be blocked so selecting fibers which do not block well does not suit cable designs. There is a reason traditional Aran sweaters are knit in cream colored wool. Cable designs require much more yarn than other pattern types. Heavier fibers, like cotton, may not be suitable. I learned this the hard way when I knit an Aran sweater in worsted weight cotton. It weighed 10 pounds.

If you plan to substitute another yarn for a pattern or if you are designing a cabled garment, buy one skein and knit a swatch. It will tell you more than any list of acceptable/non-acceptable fibers. For example, the yarn used for the sample pillow violates two of my rules. It is dark and it is fuzzy yet it works fine for this design.

Abbreviations

Contrary to popular belief, there are no knitting police. If there were, their first job should be to come up with some standardized system for abbreviations, particularly for cables. The list of cable abbreviations has deterred many knitters from even tackling a cable design. Look through five different books and magazines and you will find five styles of abbreviations.

Many patterns use abbreviations such as C4F and C4B. The “C” stands for cable, the “4” indicates the total number of stitches and the “F” and “B” tells the knitter whether to hold the stitches on the cable needle to the front or the back. This notation is fine for simple cables where there is an even number of stitches and all stitches are to be knit.

One system of abbreviation uses notation such as “4-st RC” and “4-st RPC.” The first abbreviation is the same as C4B but the second abbreviation still requires a key. The “R” indicates the slant and the “P” stands for purl but the knitter has to look at the abbreviation definitions to know how many stitches to put on the cable needle and how many stitches to purl.

Another system that is gaining popularity provides much more information once you have decoded it. For example “2/1 LPC” translates to Sl 2 sts to cn and hold to front (“2” and “L”), purl 1 st (“P”) and knit the stitch from the cable needle (“C”).

It really doesn't matter which style used since a well written pattern will provide an adequate description of the abbreviations.

Charts

Most cable patterns are shown on charts instead of being written out step-by-step. This is particularly useful for more complicated

patterns. Again, there is very little consistency in symbols used in charts.

Charts for cables, as for any knitting chart, are read starting at the lower right corner. Each grid corresponds to a stitch. The diagonal slant of the symbols shows the direction of the cable. If you are working in the round, you return to the right side of the cable when you reach the end of the chart. If you are working on two needles you read the chart from right to left and then from left to right.

It is good idea to copy the chart so that you can mark off completed rows. It is a necessity for complicated Aran designs which consist of panels with different stitch patterns. The pattern may have many charts, each with a different number of rows for pattern repeats.

Terminology

Another area for confusion is the general terminology used for different types of cable patterns. For example, Barbara Walker in *A Treasury of Knitting* has three categories – twist stitch patterns (two or more stitches which can be cabled without a cable needle), cables (worked in panels) and cable-stitch patterns (all over cables). Some books have separate names for the type of patterns where the cable “travels,” that is the cable moves across the purled background. The pattern for the pillow in this lesson uses this technique. What does it all mean? Not much. A cable is still a cable whether or not you use a cable needle or if it is comprised of 2 or 10 stitches.

One distinction that must be made is between cables and Bavarian (or Austrian) twisted stitch patterns. Cable needles can be used for these intricate designs but all of the design stitches are knit (or purled on the WS) through the back loop which gives them their distinctive look.

Gauge

The gauge for cabled patterns is very different from Stockinette gauge. The combination of the cables and the alternating knit and purl columns can radically reduce the number of stitches per inch. The more cabled stitches, the fewer stitches per inch. For example, a cable of 8 stitches bordered on either side by purl stitches will require more stitches per inch than a cable of 3 stitches. The practical implications are several. It is absolutely necessary to knit a gauge swatch and do the math. Multiply out your gauge and compare it to the final measurements for the garment you are knitting. The more cables, the more yarn you will need. If the project has a border, such as ribbing at the bottom of a sweater, you need to be aware of the dreaded cable flare.

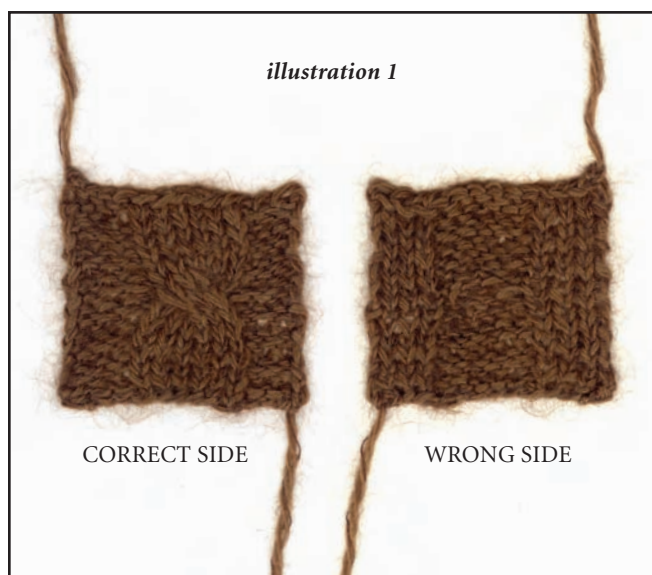
Cable Flare

The difference in gauge between cables and other stitch patterns can cause a problem when the cable has a border. If you look at most patterns for cabled sweaters with ribbing at the bottom you will find most require increases in the last row of ribbing.

This counteracts the flaring where the ribbing meets the cables. The solution is to increase the stitches at the base of the cables rather than evenly space them throughout the row. The bibliography lists other sources for solutions to this problem.

Gutters, Ladders and Big Stitches

Problems that can arise when knitting cables are gutters, ladders and big stitches. Illustration 1 shows all three. Many knitters have problems with stockinette tension. On the stockinette side uneven tension gives the piece a corrugated appearance. On the reverse stockinette side, there are gutters between the rows. Purling looser than knitting is the general cause.



Another problem can occur at the left side of cables. If the yarn is not pulled forward tightly when changing from knit to purl stitches, the excess yarn either leaves a ladder between the cable and reverse Stockinette stitch or it works back into the previous stitch making it overlarge. If pulling the yarn forward doesn't solve the problem, try wrapping the yarn under the needle when purling rather than over the needle. You just have to remember to work this stitch through the back loop on the next row or it will be twisted.

The cabled stitches can also become oversized. Be sure to use a cable needle several sizes smaller than size of the needles you are using for the project. Too big of a cable needle can stretch out the stitches on the cable needle. When working the stitches on the cable needle, try to baby the stitches by just using the needle tips. Inserting the needle too far can also stretch out the stitch.

Blocking

Great care must be taken when blocking cabled patterns not to flatten the cables. When steaming never press the cables. Use a blocking method recommended for the fiber type.

CABLED PILLOW LESSON

The pattern in this lesson is for a 12" cabled pillow. There will be an explanation of each step preceding the pattern section. **Pattern instructions are boxed to set them off from the explanations.**

Knitting a pillow is different from knitting a sweater. For one thing, the pillow will last longer if its finished fabric is denser. When you are knitting a sweater, drape of the fabric is an important consideration. A sweater knit with a significantly smaller gauge than the recommended gauge will not drape properly but a stiff fabric will work well for a pillow. Think of it as the difference between upholstery fabric and fabric used to sew a dress.

Pattern Information

This section provides introductory information needed before you work the pattern.

Knots and Oughts Cable Pillow by Arenda Holladay

Level of Experience: Advanced Beginner

Finished Measurements:

Width: 12"

Length: 12"

Materials:

Rowan KID CLASSIC (50 g/153 yds, 70% Lambswool, 26% Kid Mohair, 4% Nylon):

2 skeins Bear #817

One pair Size 5 (3.75mm) needles or size to obtain gauge

One pair Size 4 (3.5mm) needles or size to obtain gauge

Cable needle

Tapestry needle

Stitch markers (12" x 12" pillow form)

Gauge:

In Cable Pattern with larger needles, 28 sts and 34.

In St st with smaller needles, 26 sts and 32 rows = 4"/10 cm.

To save time, take time to check gauge.

Abbreviations:

C3F – Sl 2 to cn, hold to front, p1, k2 from cn.

C3B – Sl 1 to cn, hold to back, k2, p1 from cn.

C4F – Sl 2 to cn, hold to front, k2, k2 from cn.

continued on page 12

Preparation – Measuring Gauge

The most important part of the general pattern information is the description of the expected gauge. Before beginning, it is necessary to knit a gauge swatch even if you are using the recommended yarn. Since this a pillow, the recommended gauge for this yarn is too loose. The fabric needs to be denser both for durability and so that the pillow form does not show through. The size 8 or 9 needles recommended for the yarn are too large. This pattern recommends using size 5 needles.

Cast on 32 stitches and work a swatch using the Knots and Oughts Cable. With a purl stitch on either side, work stitches 1-20 of the chart once and then stitches 1-10 ending with a purl stitch (see illustration 2). Work at least 4" in the cable pattern. Block the swatch and measure the width (do not include the purl stitches at the selvedge) to an eighth of an inch and note the decimal measurement on the worksheet below.



Gauge Worksheet

Width:

1/8 = .125	1/4 = .25	3/8 = .375	1/2 = .5
5/8 = .625	3/4 = .75	7/8 = .875	

Number of Stitches: Don't include the selvedge stitches. Divide the number of stitches by the width. This gives you the number of stitches per inch. Do not round off the number.

Number of Stitches Per Inch: Multiply the number of stitches by 4. Round this number up or down.

Number of Stitches in 4": Repeat procedure to determine row gauge.

Length:

1/8 = .125	1/4 = .25	3/8 = .375	1/2 = .5
5/8 = .625	3/4 = .75	7/8 = .875	

Number of Rows: Don't include the cast on or bind off edge. Divide the number of rows by the length. This gives you the number of rows per inch. Do not round off the number.

Number of Rows Per Inch: Multiply the number of rows by 4. Round this number up or down.

Number of Rows in 4":

Gauge Example

Illustration 2 shows the cable gauge swatch for the pillow.

Width: 4.25"

Number of Stitches: 30 (30 ÷ 4.25 = 7.058)

Number of Stitches Per Inch: 7.058 (7.058 x 4 = 28.2352)

Number of Stitches in 4": 28

Length: 4.25

Number of Rows: 36 (36 ÷ 4.25 = 8.470)

Number of Rows Per Inch: 8.470 (8.470 x 4 = 33.882)

Number of Rows in 4": 34

If you are getting fewer stitches than the recommended gauge, try using a smaller needle size. If you are getting more stitches than the recommended gauge, try using a larger needle size.

Decisions – Pillow Back

Before proceeding, it is necessary to make some decisions about the pillow back. In the sample, the back is Stockinette stitch. For that reason, it is necessary to knit a second gauge swatch to determine that gauge. If the pillow is cabled on both sides, this step isn't necessary. Another option for the pillow back is to make or buy a finished pillow and baste the pillow top to it.

Remember that cabled patterns have a different gauge from Stockinette. Finishing the pillow will be much easier if the back has the same number of rows and stitches as the front. Since this cable pattern does not impact gauge as much as other designs, using smaller needles for the back should solve the problem and make it denser. It isn't critical that the gauge for the front and back match exactly, as long as they are close.

Using smaller needles, work another gauge swatch by casting on at least 32 stitches and working 4" in stockinette stitch. Don't worry that the fabric is as stiff as cardboard. This is a good thing for the

pillow. Using the worksheet and procedures on page 12, calculate the gauge.

Pillow Front

Since there is no border or ribbing for the pillow, cable flare is not a problem. The front consists of four multiples of the cable pattern and 4 repeats of rows 1-24. To balance the cable pattern on the pillow front, several rows are worked before the chart is worked and after the fourth repeat. In addition, there are two purl stitches worked at the selvages. These are necessary for finishing. So that the smooth side of the cast on is the RS, the first row worked establishing the pattern is worked on the wrong side.

When working the cables, remember to bring the yarn forward firmly when changing from a knit to a purl stitch. To avoid overlarge stitches when cabling, be sure the cable needle is smaller than the project needles and to keep the stitches at the needle tips when working the stitches on the cable needle. Avoid stretching the stitches on the cable needle.

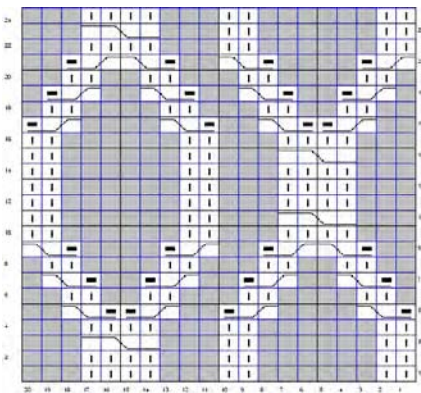
Pillow Front

Using larger needles and a long tail cast on, CO 84 sts. Row 1: K2, *p2, k6, p2, k3, p4, k3; rep from * to last 2 sts, k2. Row 2: P2, *k2, p6, k2, p3, k4, p3; rep from * to last 2 sts, p2. Repeat Rows 1 and 2 one time. Work 4 repeats of Cable Chart. Work 3 rows in pat as est. BO in pat. (This will be on the WS.)

Pillow Back

Using smaller needles and a long tail cast on, CO 84 sts. Work 103 rows in St st. BO in pat.

Key	K on RS, P on WS
P on RS, K on WS	
CAF	
C3B	
CAF	



Finishing the Pillow

Finishing the pillow is also different from finishing a garment. It really isn't necessary to block the pillow top as it will be stretched over the pillow form. If you block the top, you run the risk of stretching it out too much so that it does not fit the pillow form. The mattress stitch is used to seam the sides (see illustration 3) and an invisible horizontal seam (see illustration 4) is used on the cast on and bind off edges. The Reference Section of the magazine provides sources for these seaming techniques.

Finishing

Using the invisible horizontal seam, sew the cast on edges together. Using the mattress stitch, sew both side seams. Place the pillow form in the pillow and stretch to fit. Using the horizontal seam, sew the bind off edges together. Secure the end and thread the yarn tail to the inside and then pull to the outside (see illustration 5). Clip the tail.



continued on page 14



illustration 5

continued from page 13

Modifying the Pattern for a Larger Pillow or Different Yarn

It is very easy to modify this pattern for a larger pillow by following simple steps:

1. Determine the number of stitches in your gauge.
2. Multiply the number of stitches per inch by the size of the pillow to find the total number of stitches needed for the pillow.
3. Determine the number of stitches in the pattern multiple.
4. Divide the total number of stitches needed for the pillow by the number of stitches in the pattern multiple to find the number of multiples for the pillow.
5. Determine the number of stitches left over and decide whether to add another multiple or half of a multiple.
6. Add at least 2 stitches for the seam.

Examples of how to alter the pattern for 14" and 16" pillows using the same yarn follows:

FOR A 14" PILLOW: $7.058 \text{ (sts per inch)} \times 14 = 98.812$ (99 sts needed for the pillow top)

FOR A 16" PILLOW: $7.058 \text{ (sts per inch)} \times 16 = 112.928$ (113 sts needed for the pillow top)

Now you need to determine the number of times you can repeat the pattern using this number of stitches. The number of stitches in the

Knots and Oughts pattern is 20 stitches. Divide this number into the number of stitches for the pillow.

FOR A 14" PILLOW: $99 \div 20 = 4.95$. The pattern can be repeated 4 times and there are 19 stitches left over. The best solution for this size pillow is to repeat the pattern 5 times – 100 sts. Finishing requires at least one selvedge stitch at each side. To make the top for a 14" pillow, cast on 102 stitches, work a purl stitch at each selvedge and repeat the cable pattern 5 times.

FOR A 16" PILLOW: $113 \div 20 = 5.65$. The pattern can be repeated 5 times and there are 13 stitches left over. There are two solutions for this size pillow. If you want the pillow top a little loose, add 7 more stitches (total of 120) and add 2 stitches for the selvages (total of 122). If you want the pillow top a little tighter, you can work 5 repeats of this pillow and then half of a repeat. This solution is possible for this particular cable design since the motif is a column. You would cast on 100 stitches for the 5 repeats, then 10 for half of a repeat, and then 2 stitches for the selvedge (total of 112).

Once you have determined the number of stitches for the pillow, repeat the steps above to calculate the row gauge and the number of pattern repeats. These same procedures would work for any size.

Designing Your Own Pillow

You can use these same procedures to design your own cabled pillow using a cable pattern of your choice. If your cable is an all over pattern, use the procedures above just substituting the number of stitches needed to repeat the pattern you have selected.

There are many cable patterns which would work better as a central motif. This pillow uses a lattice stitch pattern from Elsebeth Lavold's *Viking Patterns for Knitting*. The design process is slightly different.

1. A swatch of the pattern with 3 purl stitches on either side is knit and measured. In this case the width of the stitch pattern is 4.25". The width of the pattern is subtracted from 12" (the width of the pillow). $12 - 3.75 = 8.25$ (width minus the width of the cable pattern.)
2. A Stockinette gauge swatch is knit and the number of stitches per inch is calculated. In this case there are six stitches per inch. The number of stitches per inch is multiplied by the result above to give you the number of stitches for the Stockinette borders. $6 \times 8.25 = 50$ (number of stitches for the Stockinette border).
3. Divide this number by 2 to get the number of stitches needed on either side of the cable and add 2 stitches for the selvages. $50 \div 2 = 25$. There will be 26 Stockinette stitches on either side of the central cable motif.

4. Cast on 82 stitches. The first 26 are for the Stockinette border at one side, 30 stitches for the cable motif and 26 for the other side.

Repeat this procedure for the row gauge of the cable pattern and the number of rows in the cable repeat.

Conclusion

Designing a cable pillow isn't difficult if you work accurate gauge swatches and know the number of stitches required for the cable pattern. All you need is a calculator and a worksheet. A worksheet is provided for you if you want to design your own pillow. The bibliography includes stitch dictionaries which have cable designs.

Pillow Worksheet

Width: Number of stitches in cable multiple

Width of Cable Swatch:

$1/8 = .125$	$1/4 = .25$	$3/8 = .375$	$1/2 = .5$
$5/8 = .625$	$3/4 = .75$	$7/8 = .875$	

Number of Stitches in Cable Swatch: Don't include the selvedge stitches. Divide the number of stitches by the width. This gives you the number of stitches per inch. Do not round off the number:

Number of Stitches Per Inch: Multiply the number of stitches by width of pillow. Round this number up or down.

Number of Stitches for Pillow: Number of stitches in pillow divided by number of stitches in cable multiple.

Number of Left Over Stitches:

Length: Number of rows in the cable repeat.

Number of Rows in Cable Swatch: Don't include the cast on or bind off edge. Divide the number of rows by the length. This gives you the number of rows per inch. Do not round off the number.

Number of Rows per Inch: Multiply the number of rows by the length of the pillow. Round this number up or down.

Number of Rows for Pillow: Number of rows in pillow divided by number of rows in cable repeats.

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This is by no means a complete listing of every book on traditional cable patterns or stitch dictionaries but it is a good place to start.

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