***LLD – 2002 – OCCONEECHEE LODGE 104***

***AIA – LOOM BEADWORK*** ***Jeff D. Brewer***

Style of Dance: Grass, Fancy, and Straight Dancer Belts

Geometric and Flora Designs.

Research the Beadwork – Some color combinations go with certain tribes

**Looms:**
Tandy, Crazy Crow, and others. You can make you own. See Powwow Vendors.

**Beads:**

Larger the Number = the small the bead
Cuts = shinny beads

If you have a huge project, purchase them all at once.

Suppliers:

Tandy, Crazy Crow, and others. See Powwow Vendors

I use #10 Tandy Beads.

Graph Paper or Bead Paper for design's.

**One System to Use:**

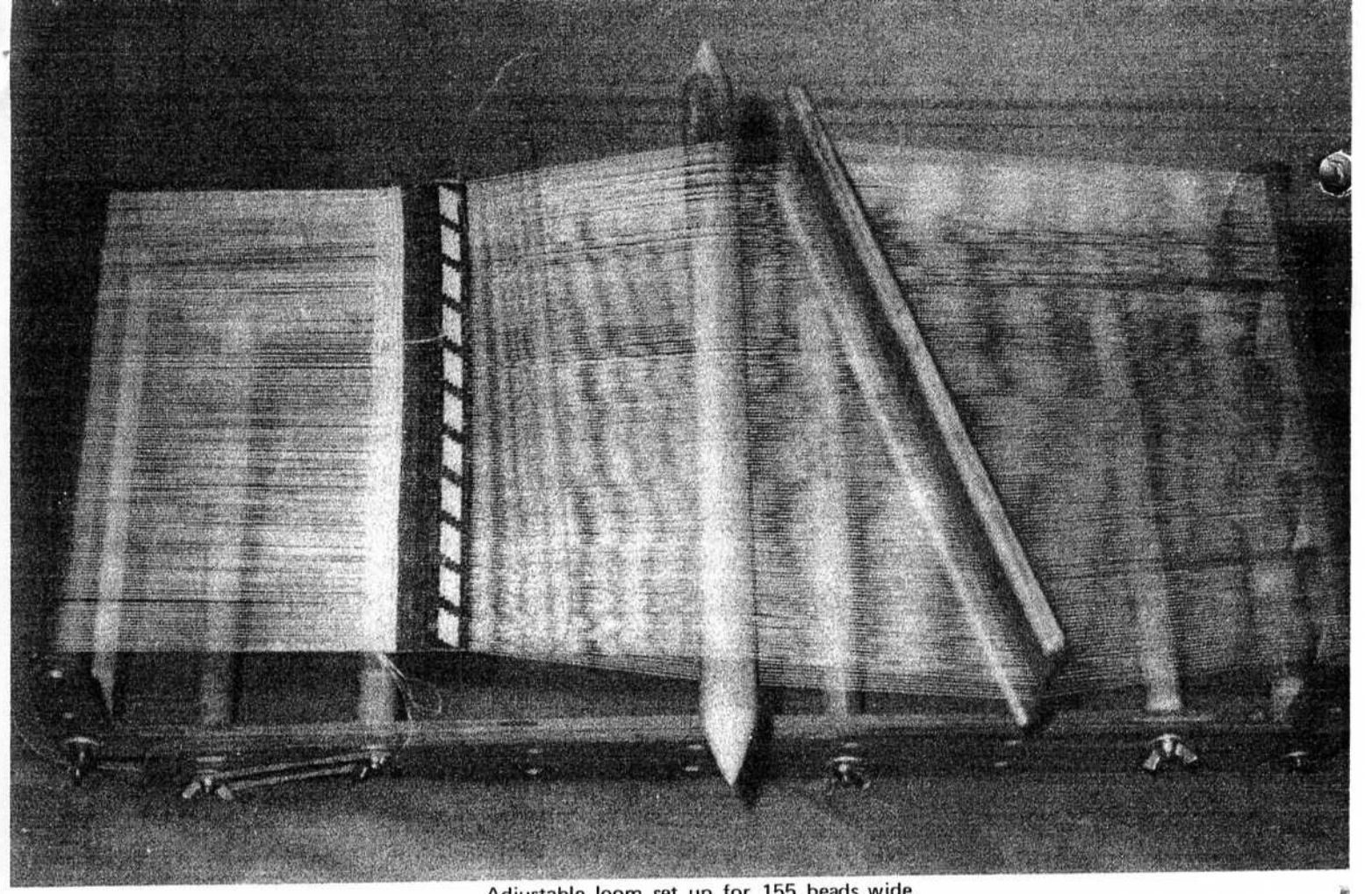
☒ = Red
☒ = Orange
☐ = White
⊡ = Blue
⊟ = Yellow
⊡ = Black

**Heddle's** = Faster way to do Beadwork, it separates the lines for you.

Suppliers: Some Powwow vendors, Calvin Terry Sr. in the Lodge, and Hoyt's Heddle and Looms – Karen Hoyt – 704-786-5705 or kdh1993@yahoo.com

**String:**

Polyester and use Bee's Wax
Key = One more wrap thread is needed than the number of beads in you design. If there are 19 beads in your design, a total of 20 wrap threads are needed, meaning there will be 19 spaces to place beads.



Adjustable loom set up for 155 beads wide.

# Heddle Loom Beading

## by John Lotter

(Ed. Note: For a good number of years now non-Indian (and a few Indian) craftsmen have been laboring with great pain and frustration when doing loomwork. Those with patience have mastered the technique which at best is truely not a traditional Indian method of loom style beadwork and it is certainly not the favored method among those tribes employing "loom style" work.

Two of "Indian lore's" early writers, Bernard Mason and Ben Hunt, have been partially responsible for the continuation of this "error" among Scouts and Indian lore groups. Until articles appeared in *American Indian Tradition* magazine, no other technique was tried or researched by most groups or individuals.

Robert Salzer's diagram in *American Indian Tradition*, May 1961, is incorrect and will confuse a person attempting to begin a heddlework project.

We will not attempt to delve into traditional methods used by Indian craftsmen at this time as a series on beadwork techniques is now in preparation for future publication. The author of our article, Mr. Lotter, has been an advocate of heddle work for a great many years and has made believers of many in the Illinois areas. I was told that during his spring vacation one year he began and completed a bandolier bag. This should substantiate the claim of speed of doing this style of beadwork. Bear in mind that this is a contemporary loom designed for ease in handling and flexibility of projects.

We are deeply grateful to John Lotter for sharing with us his knowledge and experience.)

PREFACE

The May 1961 issue of the *American Indian Tradition* carried an article by Robert Salzer, using a Heddle in loom beading as practiced by Central Algonkin tribes. The description is brief and refers mainly to a double warp method, using a semi-fixed loom. Since loom work usually was not sewn to a backing, it necessitated the use of coarse, strong thread. The use of modern Dacron or Nylon thread and double warp, strength requirements are adequately met. Whereas stringing the loom requires more time and patience than the usual or traditional single warp loom, the resulting product is much stronger

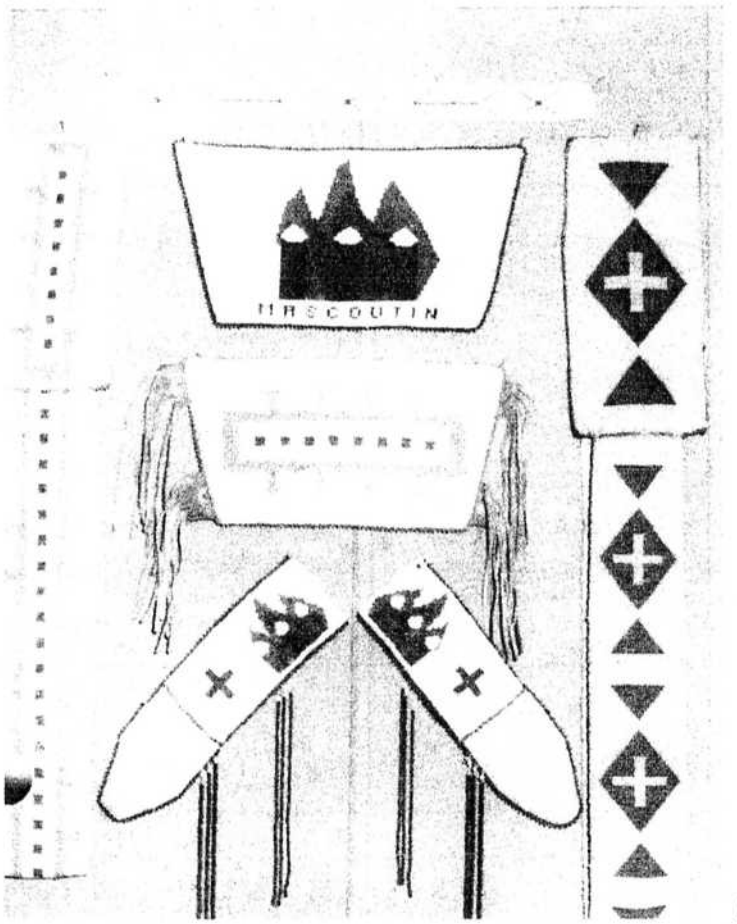
and durable. Another factor is the greater speed that can be attained with the use of a Heddle, especially on wider work such as belts, harnesses, cuffs, etc. Also edge beads can be attached at the same time that the bead weaving is done.

A Heddle consists of a thin piece of wood or other material in which holes are drilled and slots cut, through which the warp threads are strung. By the use of a Heddle and double warp, each bead is locked in place by the crisscrossing of the warp threads. (See fig. 1) Single warp appears as in fig. 2. Another advantage is that the beads need only to be strung once on the weft thread, eliminating the possibility of breaking a bead while making a second pass through the beads as in the ordinary loom beading method.

In Salzer's description of a double warp loom, the ends of one of the warp are fastened to two fixed points and the ends of the other warp thread is tied to a fixed point and to the Heddle itself. For work of considerable length the loom would be very long and difficult to operate. A fixed loom with its length adjustable is more practical. A useful loom for Heddle work should be at least 18 inches long, since about 6 inches of this length is needed for the operation of the Heddle.

STRINGING THE LOOM

Here is a procedure that can be followed in stringing a fixed loom. Variations to suit your own methods can be used.



Starting with the center hole in the Heddle, moisten the end of the thread and push it through the hole 'A' in the Heddle (wax 4 or 5 inches of the end, waxing helps knots hold better) then over and in the groove in rod 'B', down to the screw or peg in rod 'A', and tie securely. The standing part of the thread which is to be warp 'A', continues over and in the groove in rod 'C', down and under rod 'D' to and under rod 'E' and around screw or peg in 'E' (do not tie here, just loop around) back under rod 'E' and under rod 'D', up and over and in the same groove in rod 'C'. Now estimate the length of thread needed to go to rod 'A' allowing sufficient thread to tie to the screw at 'A', cut the thread from the spool, wax at least 5 inches of the end of the thread and pass the end through the slot in the Heddle at 'A', over and in the same groove in rod 'B' down and around the screw at 'A' and tie securely. Keep moderate tension on this thread and allow no slack. Follow the same procedure with warp thread 'B', use the next hole in the Heddle and its adjacent slot, but tie it to the other screw at 'A'. Alternate from one side of the Heddle holes and slots to the other, being sure that the slots are on the same sides of the holes. Keep tension as even as possible. When nearing the outer sides of the Heddle if you notice that the center threads are becoming slack, you are putting too much tension on these latter warp threads.

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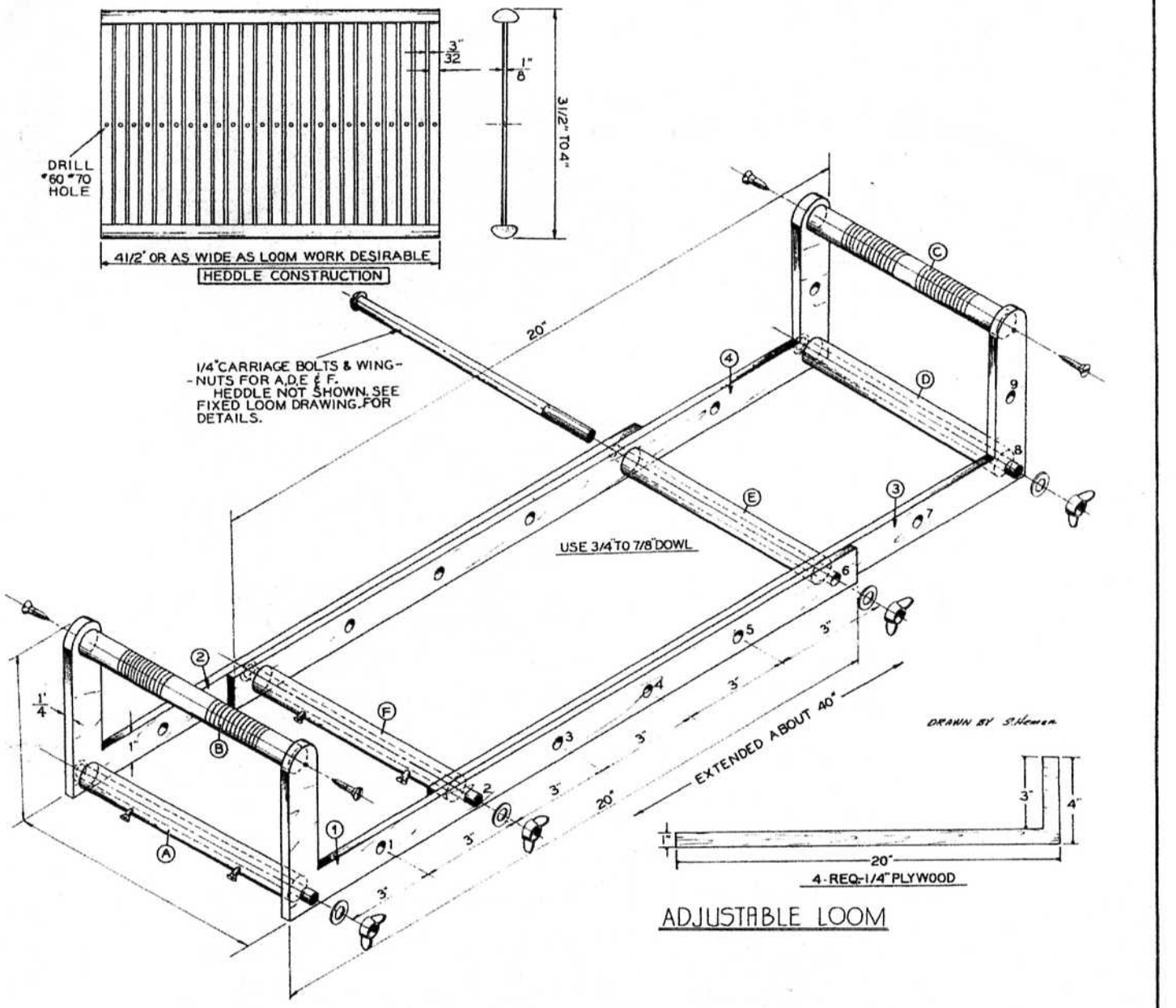


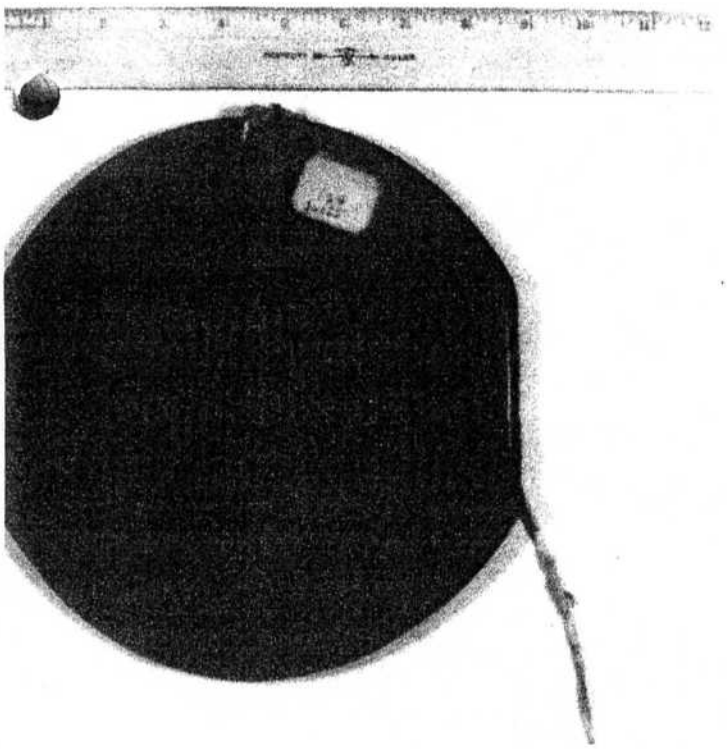

Rod 'E' can be divided into two or more pieces with a screw or peg in each piece. This allows tightening of the warp threads in the different sections of the work. On wide work this is very helpful. Rod 'E' can be moved to any position from 1 through 8 to provide enough length for warp threads for longer pieces of beadwork. If rod 'E' is started in position for maximum length, that is, in position '1', it can be moved along to positions 2 through 8 and the finished beadwork can be rolled up on rod 'A'. The loom can also be strung starting with the outside holes in the Heddle and continuing towards the center, using the same method as outlined above.

For clarity only 4 warp threads are shown. One more warp thread is needed than the number of beads in your design. If there are 19 beads in your design, a total of 20 warp threads are needed, meaning there will be 19 spaces to place beads.

TECHNIQUE

The procedure for weaving with the loom is as follows:

With the end of the loom towards you, and the loom strung, grasp the Heddle with the left hand and pull it upward. This separates the warp threads. With the right hand insert the separator rod between the separated warp threads. (This separator rod is a piece of dowel rod, broomstick or other round material, about 3/4 inch in diameter, pointed at both ends, and a little longer than the projected work is wide. (See diagram) It merely serves to hold the warp threads apart, freeing both hands. It is suggested that the cross thread, the weft, be used double, making for a strong piece of work. Dacron is very suitable for the weft thread. Take the weft thread with the needle on it, (without beads) and pass it from the right side to the left between the



separated warp threads, remove the separator rod, depress the Heddle and reinsert the separator rod. Now do the reverse, pass the needle and thread from left to right, remove the separator rod, pull up on the Heddle, reinsert the separator rod. Make 6 or 8 passes in the above manner, thus providing a woven section of thread before starting the beadweaving. This woven section will prevent the warp threads from ravelling. Push these weft threads together, but do not pull them tightly so that beads can be placed between the warp threads at the start of the bead weaving. Now string beads on the weft thread, and pass it between the warp threads. Position the beads between the warp threads so that there are two threads on each side of each bead. This can be accomplished with the fingers from underneath the warp threads. Remove the separator rod, move the Heddle to a position opposite from what it was, reinsert the separator rod, and one row will now be completed. The first row sometimes is difficult, and patience is required. Suppose there are 3 warp threads on one side of a bead and only 1 on the other side. Simply take a large needle, a darning needle for example, and move the misplaced warp thread to the other side of the bead, either over or under the bead, depending on which way the warp threads were crossed. This same procedure can be followed even if there are 4, 5 or more warp threads misplaced. A little practice will soon accomplish the desired result. This method is especially helpful on the first row.

When all the beads are correctly positioned, one row will be completed. Now do the same for another row in the opposite direction, After several rows have been done, the beads can easily be positioned with little difficulty, and progress will be rapid. Push the beads together, keeping reasonable tension on both the warp and weft threads. Too much tension will result in a ribbly, lumpy appearance when the work is removed from the loom. It is best to start with a headband or a piece of work that is 15 or 20 beads wide and after some experience do wider work. With Heddle work of 50 to 100 beads wide, divide the beads on the weft thread so that half are on the right side and half on the left side of center and position the beads from underneath with the fingers of either hand. With wide work insert a pencil with an eraser on it between the warp threads and stick the weft needle into the eraser and draw it to the other side, thus eliminating the need for a long needle or long fingers. At the end of the work weave 6 or 8 rows of thread the same as at the start and apply Elmers glue to these woven ends. This secures all the threads securely. Edge beading can be done at the same time as the beading progresses by simply placing the edge bead on the weft thread, but leaving it on the outside of the outer warp thread. These edge beads will not be opposite each other on each side of the work, but on adjacent rows.

To eliminate knots when a new weft thread is needed, the following is suggested. Do not tie the old weft thread to the new one. When completing the last row of beads with the old weft thread, wax the thread for the last row of beads, or for at least the last 20 to 25 beads (select beads with larger holes for the last row or so), complete the positioning of the beads in their proper places in the usual manner, leave the old weft

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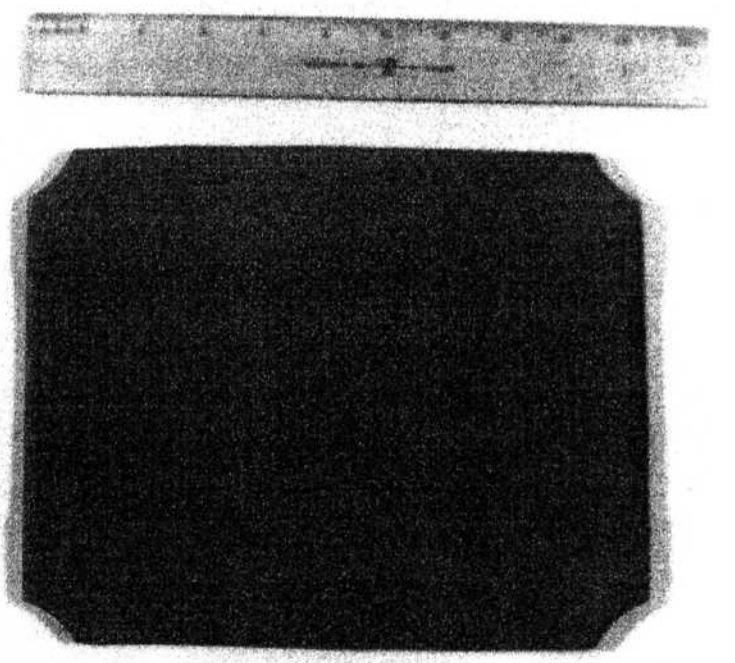


with its needle attached hanging on the side of the work, take another needle and thread it. Wax the last several inches of this new weft thread, and thread it through the last row or at least 20 to 25 beads with larger holes since there will be 4 threads going through these last beads. If a bead breaks, simply replace it on the old weft thread and needle. Then complete the operation of the Heddle in the normal way. Make one complete row of beads with the new weft before cutting off the old weft and its needle. Crossing of the warp holds the waxed weft threads securely in place, hence no knot. If single warp and single weft thread is used it will be necessary to complete at least one complete row with the old and new weft threads in this row to make the change successful.

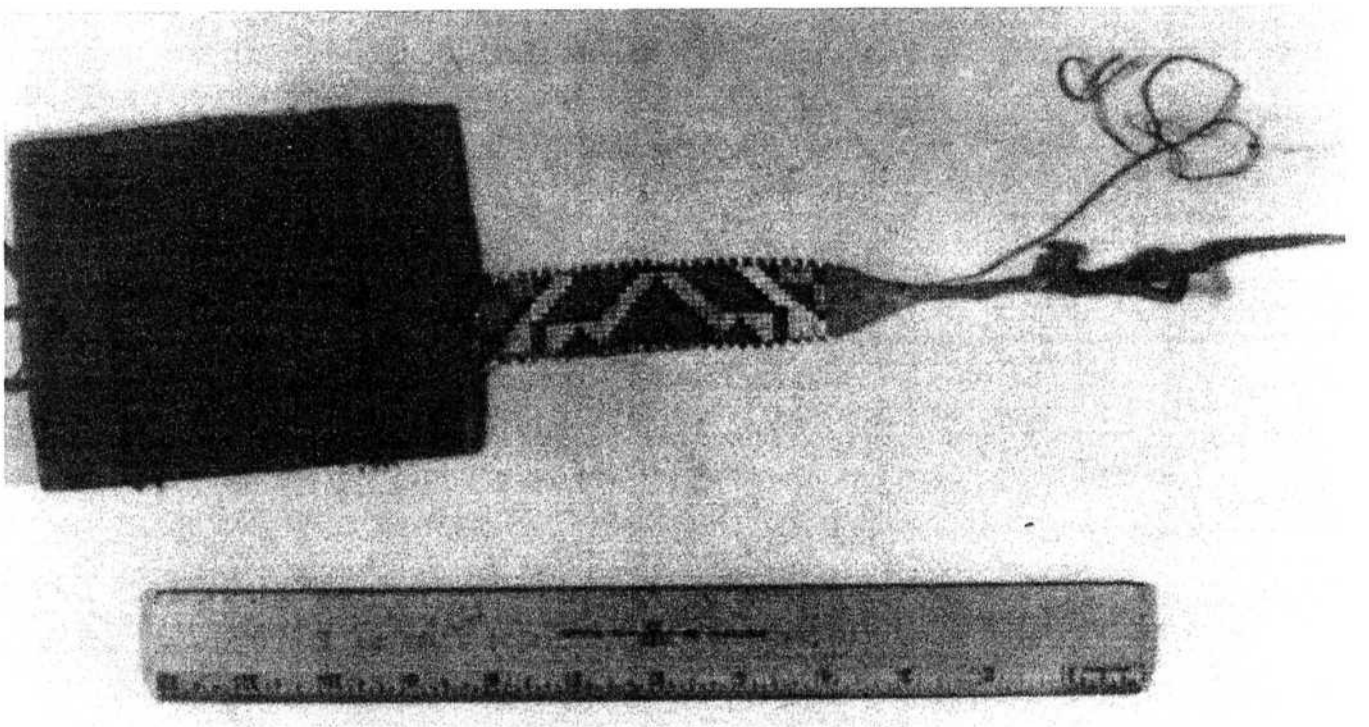
ADJUSTABLE LOOM

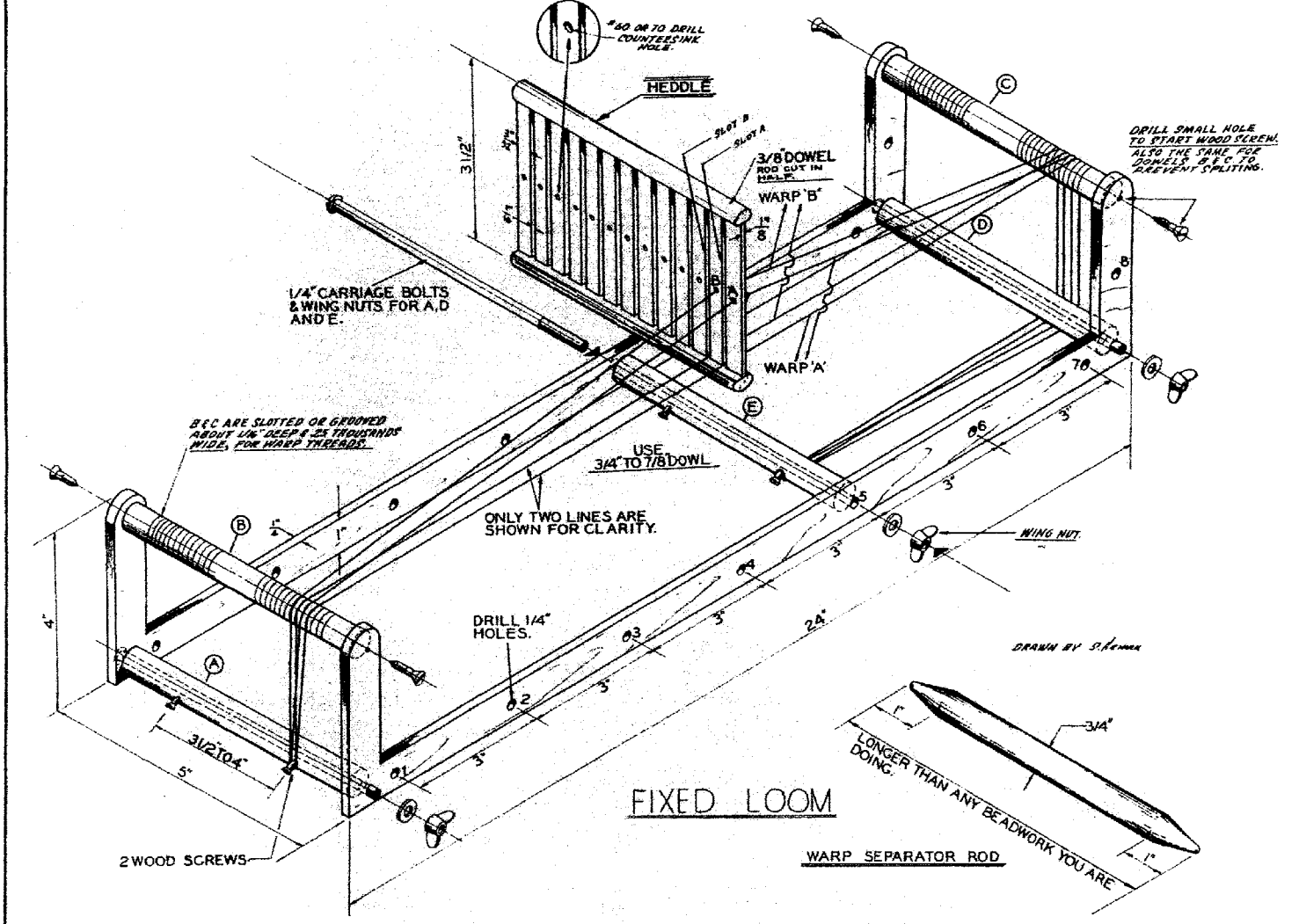
Four identical side rails of ¼ inch plywood, about 24 inches long, 1 inch wide and 4 inches high and accurately drilled with ¼ inch holes about 3 inches apart. Pieces 1 and 2 are held together with slotted piece 'B' and drilled rod 'A' and pieces 3 and 4 are held together with slotted rod 'C' and drilled rod 'D'. Pieces 'C', 'D', 'E' and 'F' are ½ inch shorter than pieces 'A' and 'B'. To lengthen the loom, slip connected pieces 3 and 4 to a new position that will make the loom longer, and reinsert pieces 'E' and 'F'. Rod 'E' can be cut into two or more pieces to provide warp adjustment by individually taking up slack on any of the two or more sections of the beadwork. Fully extended the loom will be about 40 inches. Another 10 inches of warp threads could be obtained by providing another piece 'E' ½ inch longer than the original piece 'E' and putting it in hole No. 1.

FIXED LOOM

See diagram on page with stringing of the loom.

A practical fixed loom consists of a frame made of ¼ inch plywood and should be about 24 inches long, 5 inches wide and 4 inches high. The bottom rail can be about 1 inch wide and the vertical rail 1 inch wide. Piece 'A' is a dowel rod 3/4 to 7/8 inch in diameter, drilled its entire length with a ¼ inch hole, 2 screws spaced about 3½ to 4 inches, to which the warp threads are tied. Pieces 'B' and 'C' can be ¾ inch dowel rod, fastened to the vertical rails with wood screws, and slotted or grooved about 1/16th inch deep and 25 thousandths






wide, spaced 1/16th inch apart. These slots receive the warp threads. Pieces 'B' and 'C' could also be a comb, spring or other material to space the warp threads. Piece 'D' is ¾ inch dowel rod, drilled its entire length. Piece 'E' can be in one piece or cut into several sections with a screw or peg inserted around which the warp threads are put, also drilled its entire length. The reason that piece 'E' is cut into two or more sections is that for beadwork of 25 or more beads wide, the center warp threads sometimes become slack, and thus each section can be individually tensioned. ¼ inch holes bored and equally spaced along the lower side rails permits piece 'E' to be moved through positions 1 through 8 allowing warp threads to be longer or shorter as desired. ¼ inch carriage bolts and wing nuts are used to hold the whole thing together. For example: piece 'E' could be in hole No. 1 at the start of a long piece and moved to holes 2, 3, 4, 5, 6, 7 and 8 as work progresses and finished beadwork can be rolled up on piece 'A' simply by loosening the wing nut and turning the rod. (The word 'piece' means 'rod' in the diagram.)

## HEDDLE CONSTRUCTION

To make a Heddle, secure a piece of hard white northern maple or any close grained hardwood, or other material, metal or plastic, 1/8 inch thick, about 3½ to 4 inches long and a width depending on the number of warp threads needed for projected beadwork. The number of warp threads will be one more than the number of beads in the work, so one more hole and slot will be needed. The Heddle can contain more holes and slots than are needed for a piece of beadwork.

Cut a piece of 3/8 inch dowel rod in half, lengthwise. Smooth the flat sides and glue these half pieces to the upper and lower sides of the 1/8 inch hardwood. Cut slots about 25 thousandths wide in the Heddle stock about 3/32 in. apart. Drill holes with a No. 60 to No. 70 drill in these slotted pieces. Countersinking of these holes will make stringing the loom and its Heddle easier. It is advisable to boil the completed Heddle in paraffin for about 5 minutes. This expels moisture and prevents moisture absorption in damp weather, eliminating the possibility of the slotted parts of the Heddle from warping.

The warp separator rod can be a piece of dowel rod or other types of round material, pointed at each end, about ¾ to 1 inch in diameter, and of a length longer than any beadwork you are doing. It merely serves to hold the warp threads apart, facilitating the positioning of the beads between the warp threads.

# Heddle Loom Beadwork

*By John Lotter*

*Illustrated by Sumner Heman—Photography by Joe Kazumura*

## *Introduction*

Loom usage dates back to the early days of man's recorded history. Looms have been used for many centuries, mainly in the making of cloth rugs, clothing, blankets, and for a myriad of purposes. Loom bead weaving became popular after beads became plentiful and relatively inexpensive.

Various methods of bead weaving have been devised, including the use of a hand held heddle. These small heddles were introduced into the Americas by traders, explorers and probably Missionaries. Most of this introduction occurred along the eastern seaboard, along the Canadian provinces by the French, into the Great Lakes regions, with beads and thread long enough to make stringing of looms possible. The Woodland tribes did much heddle bead weaving, and many heddled pieces of beadwork were turned out, especially bandolier bags and belts. Indian craftsmen turned out heddles with whatever material was available. Much time and skill was required to make a heddle that served the purpose of beadweaving.

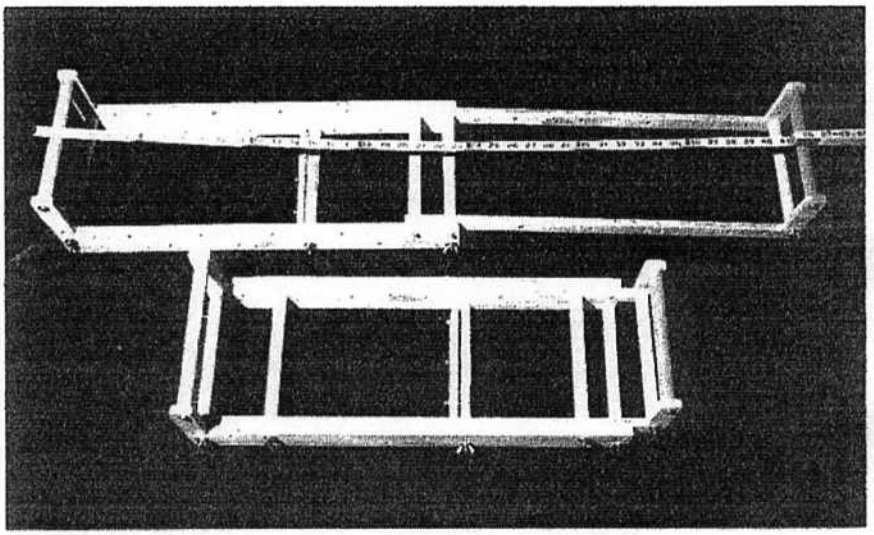
## *The Loom*

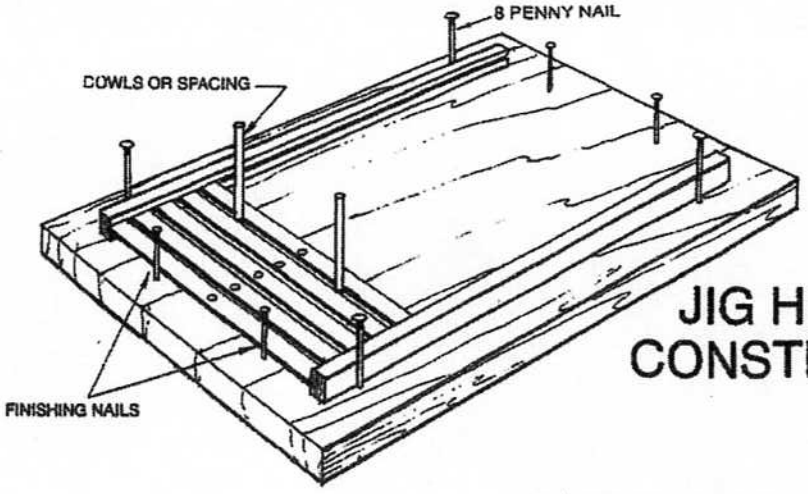
A loom can be constructed from suitable materials, such as plywood (PLATE 2). The cross members are dowel rods. These are needed to hold the threads and to keep the side rails apart. The size of the loom depends on the length and width of the proposed beadwork. A loom can be made "fixed" or made in such a way to make it longer to accomodate long pieces of beadwork such as belts and harness sets (PHOTO 1). The loom in PLATE 2 is about 4 inches high, 5 inches wide and 24 inches long. The side rails have holes in them for the attachment of the dowel rods that hold threads and to keep the side rail apart. The "warp" threads run

***Photos Opposite Page—***

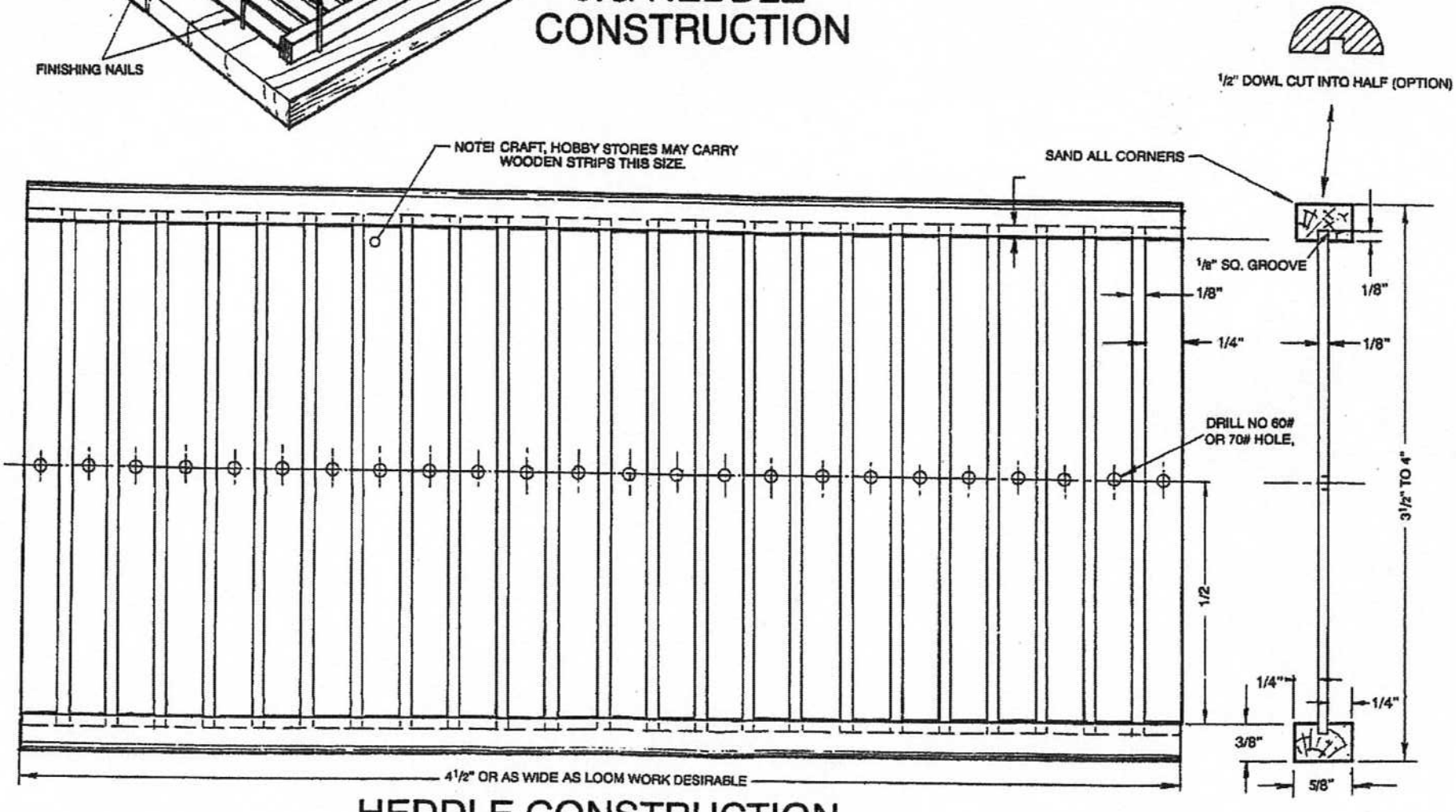
***Top Left** – Chippewa bag, 225 beads wide, made in three sections of 75 beads wide each.*
***Top Right** – Bag, legging strips and cuffs beaded in heddle lazy stitch.*
***Lower Left** – Pipe bags. Lazy stitch done on a heddle loom*
***Lower Right** – Sac & Fox shoulder bag, 159 beads wide.*

***PHOTO 1 (right) —***
*Extendable 24 inch heddle loom; extended to 40 inches. Note attachment of the retainer bar to rod 'E'.*



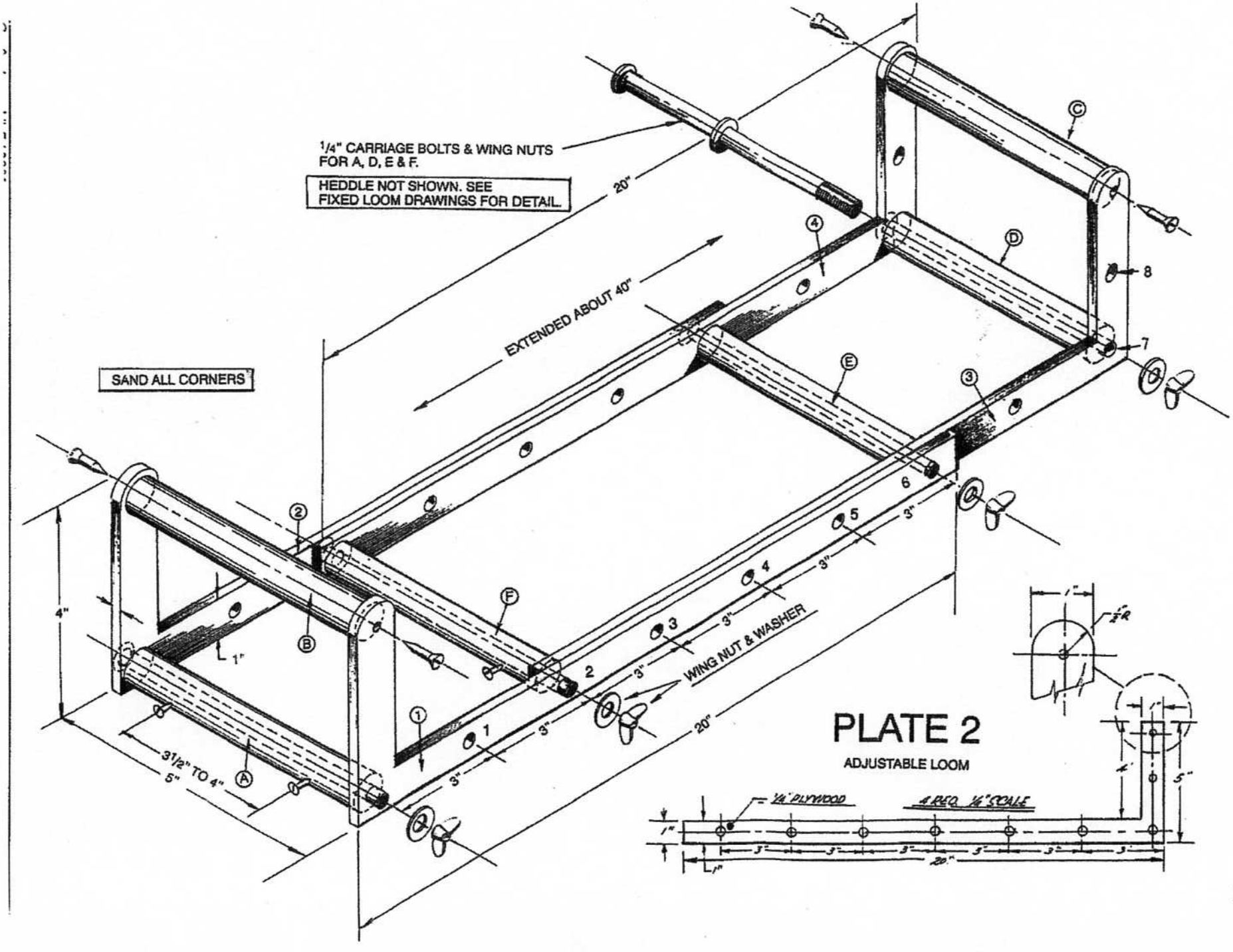



# JIG HEDDLE CONSTRUCTION




## HEDDLE CONSTRUCTION

PLATE 1


1/4" CARRIAGE BOLTS & WING NUTS FOR A, D, E & F.
HEDDLE NOT SHOWN. SEE FIXED LOOM DRAWINGS FOR DETAIL.
SAND ALL CORNERS
EXTENDED ABOUT 40"
20"
WING NUT & WASHER
3"
4"
1"
31/2" TO 4"
5"
PLATE 2
ADJUSTABLE LOOM
1/4" PLYWOOD
4 REQ. 1/4" SCALE

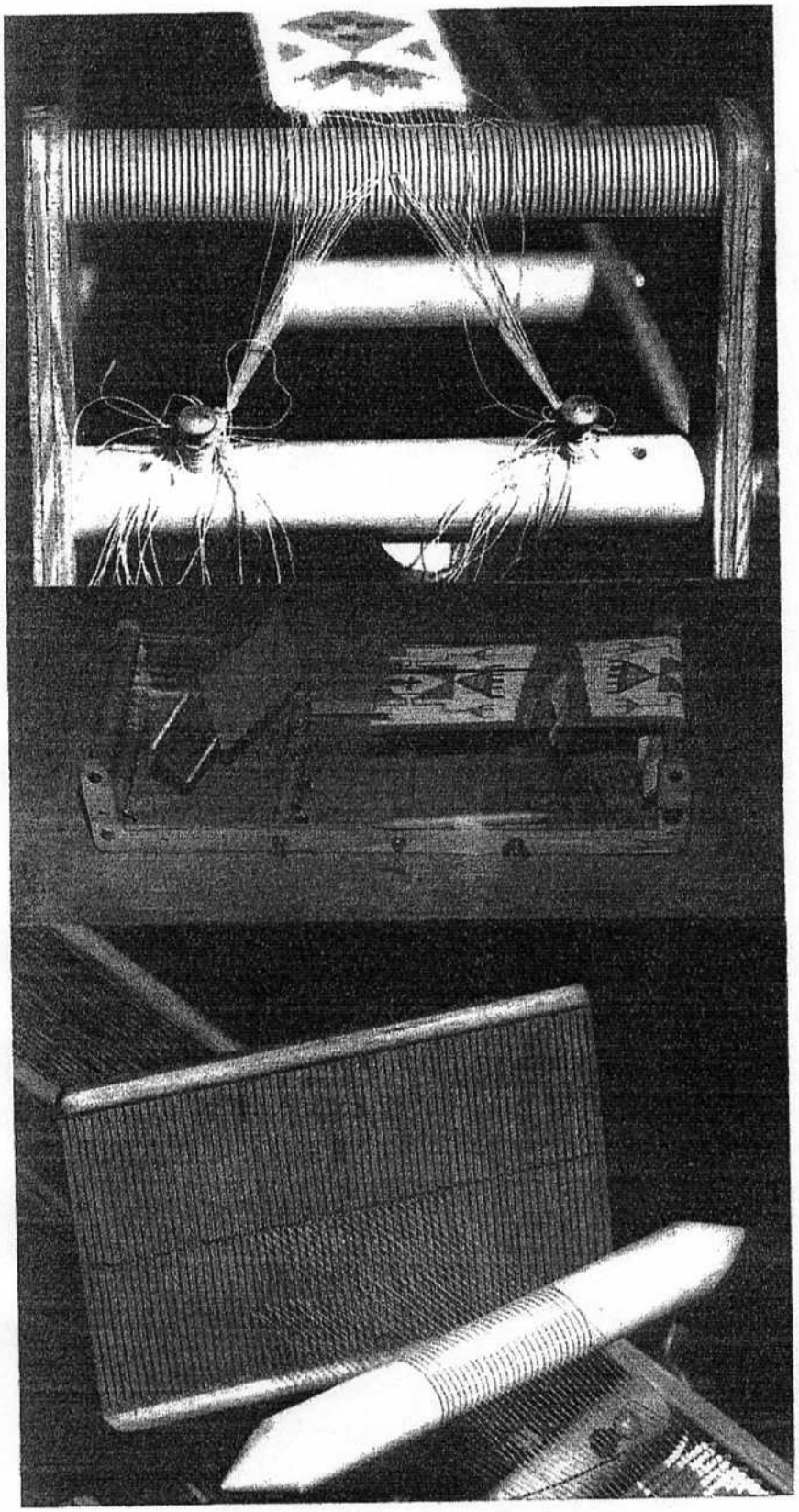
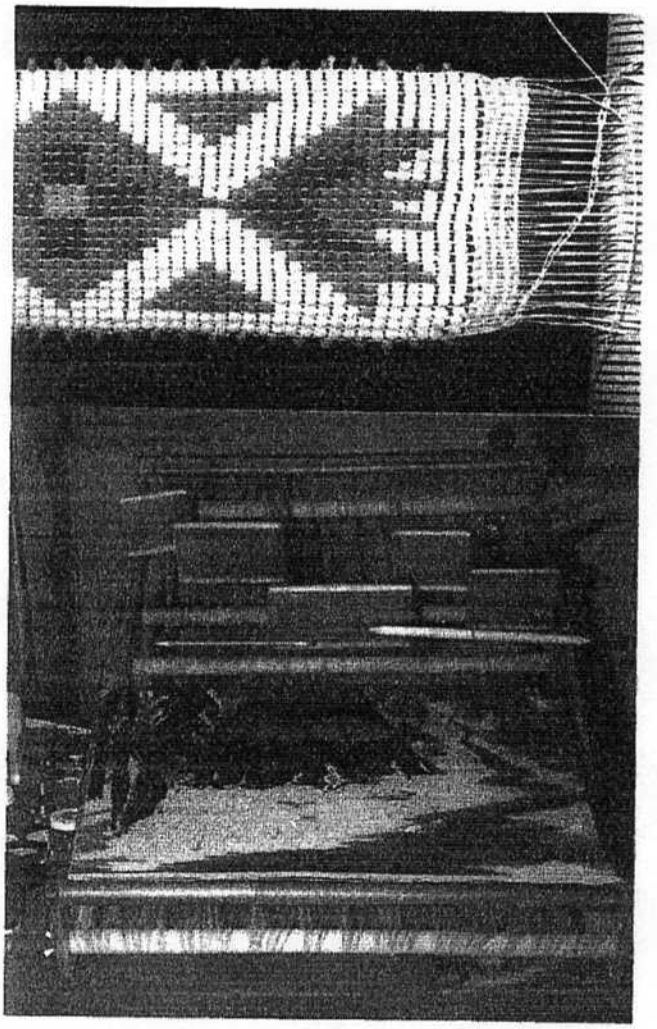


***PHOTO 2 (top)—***
*Detail view of heddle loom showing rod 'A' (lower) with screws for thread attachment and rod 'B' (upper) for thread spacing.*
***PHOTO 3 (middle)—***
*Note the number of screws in rod 'E' to maintain warp thread tension. The loom pictured has two heddles in place with lazy stitch beading in progress.*
***PHOTO 4 (bottom)—***
*Detail of heddle and warp separator showing thread going through heddle.*

lengthwise. The rod 'A' (PLATE 2, PHOTO 2) on the left side has screws in it to which the warp threads are tied. Rod 'B' has grooves cut into its surface, into which the warp threads are placed. Rod 'C' is similar to rod 'B'. Rod 'D' is a plain rod needed to hold the side rails apart. Rod 'E' is composed of three or more sections, and have a screw in each of the sections. Rod 'E' is sectioned so that by turning it, the tension of the warp threads can be maintained (PHOTO 3). Rod 'F' also is a plain rod and holds the side rails apart. Rod 'E' can be placed in any of the holes 1,2, etc., depending on the length of the proposed beadwork. After the beadwork has reached a length that restricts the movement of the heddle, the wing nut holding rod 'A' can be loosened slightly, allowing it to be turned. Remove the bolt holding the sections of rod 'E', and turning rod 'A' winding up the beadwork, while moving rod 'E' thus shortening the beadwork and the warp threads, so that rod 'E' can be placed into a new position. Replace the bolt in rod 'E' and tighten it. Also, tighten the wing nut holding rod 'A'. To aid in holding the 3 or more sections of rod 'E', and threads on it, the "retainer" bar is used (PHOTO 1). This is placed over the threads and screws of rod 'E', along with rubber bands, while moving rod 'E' to another position. The RETAINER bar in used ONLY while moving rod 'E', and must be removed from rod 'E', so that tension adjustments can be made.



## *Stringing the Loom*

Stringing the loom means putting the warp threads (the ones running lengthwise on the loom) into their proper position. In the PLATE 3 only 4 warp threads, for clarity, are shown. For heddle beading, a heddle is needed (PLATE 1), and is shown in the center of PLATE 3. The warp threads are strung through the holes and slots of the heddle (PHOTO 4). There are 2 ways of using warp threads; single warp, and double warp. Single warp means that there is only one thread between adjacent beads. With double warp (PHOTO 5), there are two threads between adjacent beads. In single warp, there is one thread in each of the grooves of the thread holder dowel rods, 'B' and 'C'. With double warp stringing there are two threads in each of the grooves, of 'B' and 'C', one on top of the other. With either method there is only one thread in each of the holes and slots of the heddle.

The number of threads needed depends on the number of beads in the planned beadwork, also the number of holes in the heddle. To maintain the balance of the heddle it is best to string the loom and heddle working from the outer side toward the middle. If you are planning a headband of 25 beads wide, 26 threads will be needed for single warp. For double warp 26 pairs of threads will be needed, because a thread must be placed on the outside of the 25th bead.

A polyester thread is recommended for its strength and is generally waterproof. Nylon thread is not recommended for warp

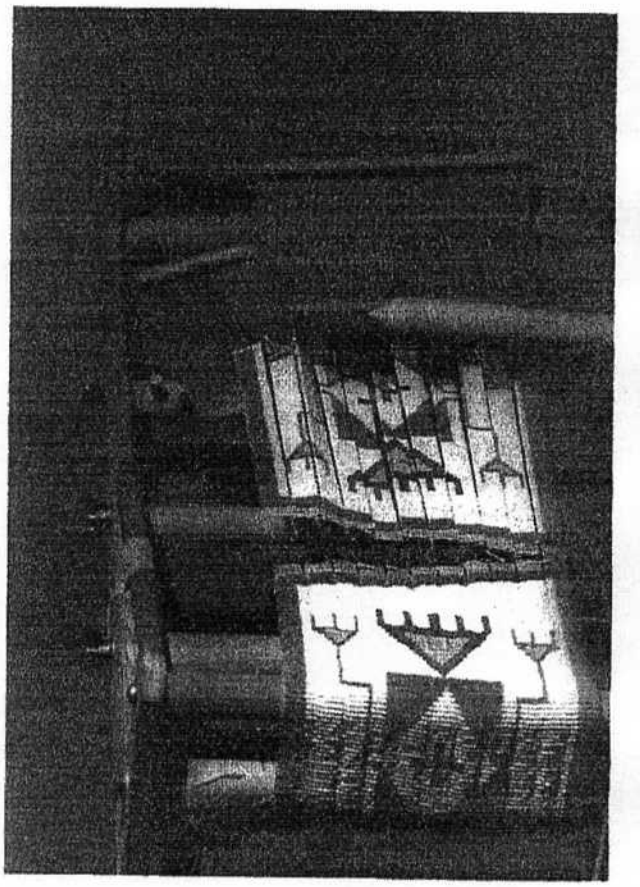


***PHOTO 5 (top)***—
*Example of woven section of thread before beginning the beading, edge beading, and use of double warp threading.*
***PHOTO 6 (above)***—
*400 bead wide beadwork using five heddles. Pencil is used to facilitate pulling the needle across such a wide expanse of beads.*
***PHOTO 7 (right)***—
*Lazy stitch beadwork being done on a heddle loom. Note wide slotted heddle and the use of the warp separator.*

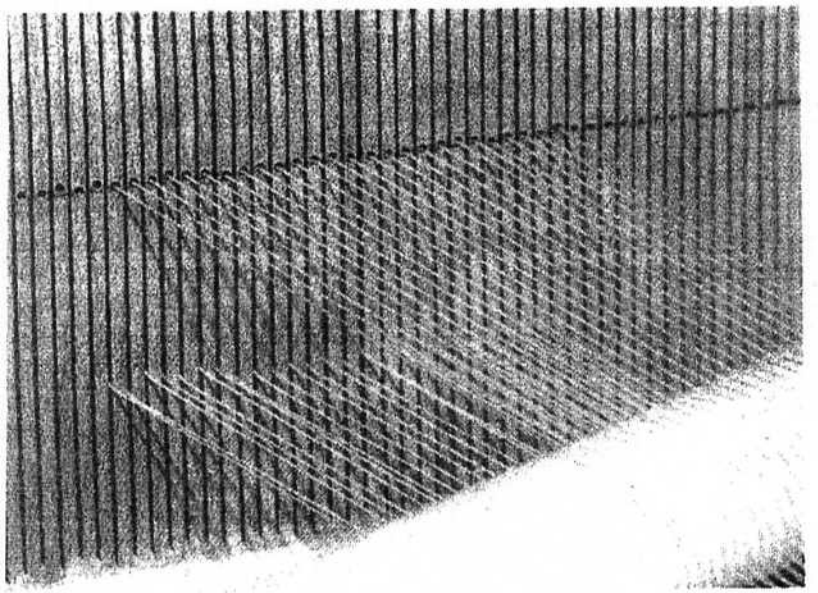


***PHOTO LEFT** – Detail of threads going through heddle holes and slits.*

ıreads, because it stretches too much. If stretched too much uring the beading process, the work will tend to bunch up when is remove from the loom. The beaded portion of the headband ; usually about 17 inches long. About 6 inches is needed for the asy operation of the heddle, therefor the warp threads must be bout 23-24 inches long.

) Begin by counting off 11 holes on either side of the center hole of the heddle.

:) Push a thread through the hole, and place it in a groove.

:) Eleven (11) grooves from the center of the thread holder rod 'B', continue down and tie it to the screw on the side that you placed the thread in the groove. (This is rod 'A').

:) Take the free end of the thread, place it in a corresponding groove in rod 'C', down and under rod 'D' on to rod 'E' and around the screw in 'E' up and in the same groove in 'C' (double warp method) through a slot in the heddle next to the thread in the hole that you used; having measured off enough thread to reach the screw in rod 'A' to which it is tied. (This is for double warp).

5) Count off 11 holes to the other side of the heddle and string that thread in the same manner as you did the first.

5) Continue stringing each thread toward the center, from one side, then the other, maintaining as even a tension as possible.

7) Additional threads can now be strung in the outer holes and slots to make up the number of threads needed (PHOTO 4).

For single warp, there will only be one thread in each of the grooves of rods 'B' and 'C'.

## *Loom Beading Instructions Using a Heddle*

With the end of the loom towards you, and the loom strung, (double warp), grasp the heddle with the fingers of the left hand, pull the heddle upward. This separates the warp threads, creating a "shed". With the right hand insert the "separator" rod, between the separated warp threads (PHOTO 4). (The separator rod is a 3/4" piece of dowel rod, pointed at both ends, a little longer than the width of the intended piece of beadwork, and merely serves to hold the warp threads apart, thus freeing both hands).

Use a Polyester thread, such as Dacron, for both the warp (the long threads) and the weft (the cross threads). Using double weft threads makes for a very strong piece of beadwork. Nylon thread is a bit too stretchy and can cause bunching of the beadwork when it is taken from the loom.

1) Thread a needle, without beads and pass it from the right side, between the separated warp threads, to the left side.

2) Remove the separator rod, depress the heddle, and reinsert the separator rod. 3) Do the reverse and pass the needle and thread from the left side to the right side. Make 6 or 8 passes in this manner.

3) This creates a woven section of thread before beginning the beading (PHOTO 5). This woven section will prevent the warp threads and beading from unraveling. Push the warp threads together, but not too tightly, because beads will be placed between pairs of adjacent warp threads.

4) String beads on the weft thread according to the design and pass it between the warp threads.

5) Position the beads so that there are 2 warp threads on each side of each bead. This can be accomplished with the fingers from below the warp threads.

6) Remove the warp separator rod.

7) Move the heddle to the opposite position, crossing the warp threads.

8) Reinsert the separator rod, crossing the warp threads and locking the beads in place. (However, the beads will not be in their correct places. This can be corrected by using a large darning needle, and moving the misplaced warp thread, either over or under the bead depending which way the warp threads are crossed, to its correct place so that there are 2 warp threads on each side of each bead.)

9) Continue this method until all the warp threads are in their correct places.

Practice will soon accomplish the desired result. This is almost always necessary on the first row. Following rows will be much easier. Most likely no threads will be misplaced.

Proceed with the second row, going in the opposite direction from the first. Push the beads together, fairly tight, keeping

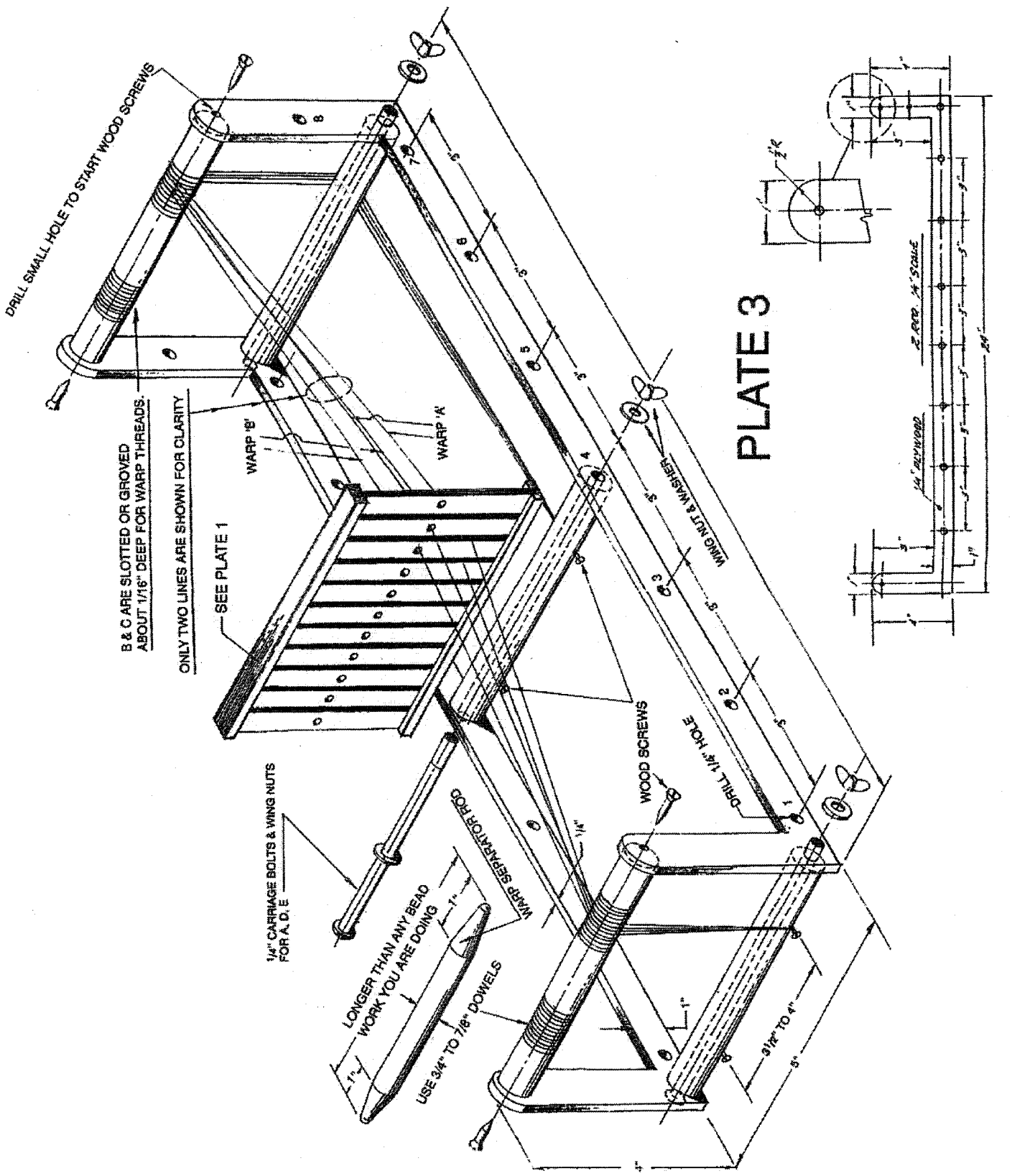


PLATE 3
DRILL SMALL HOLE TO START WOOD SCREWS
B & C ARE SLOTTED OR GROVED ABOUT 1/16" DEEP FOR WARP THREADS.
ONLY TWO LINES ARE SHOWN FOR CLARITY
SEE PLATE 1
WARP 'B'
WARP 'A'
WING NUT & WASHER
WOOD SCREWS
DRILL 1/8" HOLE
1/4" CARRIAGE BOLTS & WING NUTS FOR A, D, E
WARP SEPARATOR ROD
LONGER THAN ANY BEAD WORK YOU ARE DOING
USE 3/4" TO 7/8" DOWELS
3/16" TO 4"
1/4" PLYWOOD
1/4" SCRAP

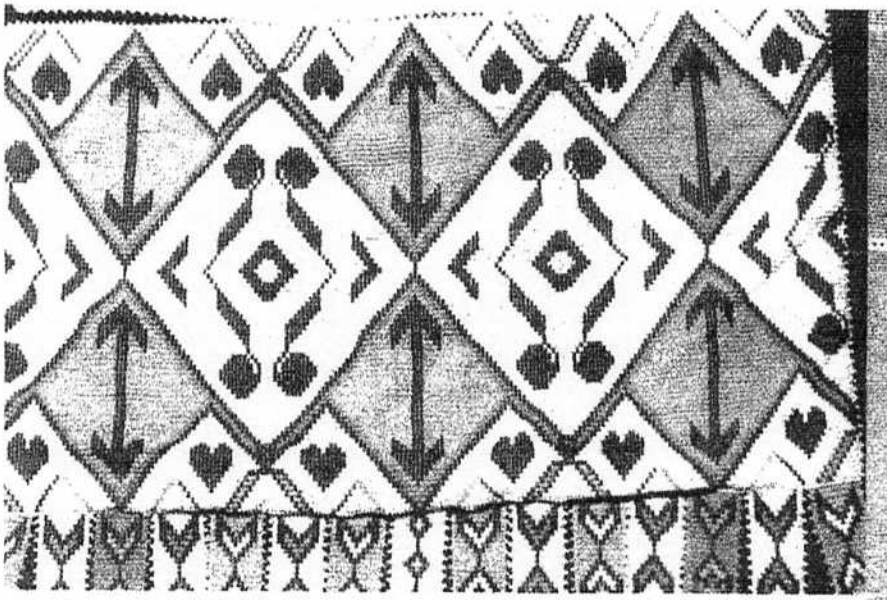


***PHOTO ABOVE –***
*Detail of Chippewa heddle beaded bag shown on page 4, top left.*

***PHOTO RIGHT –***
*Window hanging beaded on a heddle loom; 13 1/2 in. x 22 in.; done in 11/o translucent beades. Total bead count – approximately 52,000.*

reasonable tension. Too much tension will result in a ribbly, bunchy appearance when the work is removed from the loom. It is best to start with a piece of work 15 or so beads wide to gain experience.

Wider work can be done easily. With heddle work, 50 or more beads wide, it is helpful to divide the beads on the weft thread so that half are on one side of the warp threads and half on the other side of the center of the warp threads. The beads can then be positioned by the fingers of either hand. With work too wide to reach the needle of the weft thread with the fingers, use a pencil with an eraser on it (PHOTO 6). Insert the needle of the weft thread into the eraser and pull the needle and thread to the other side of the warp threads, thus eliminating the need for a long needle or long fingers. Keep an even tension on the weft thread so that the sides of the beadwork will be in an even line. At the finish of the beadwork, weave 6 or 8 rows of weft as was done at the start (PHOTO 7). Apply Elmers glue on these woven sections, this will keep the warp threads and beadwork from unraveling.

Edge beading can be done at the same time as the beading progresses, by placing the edge bead on the weft thread, in addition to the design beads, but leaving it on the outside of the outer warp thread (PHOTO 5). These edge beads will not be opposite each other on each side of the work, but on adjacent rows.

To eliminate knots, when a new weft thread is needed, the following is suggested. Do not tie the new weft thread to the old one. When completing the last row of beads with the old weft thread, select about 30 beads with larger holes in them. Complete positioning them in their proper places in the usual manner, leaving the old weft with its needle attached hanging at the side of the work. Thread a new needle. Wax the last several inches of this new weft thread, and pass this new thread through the last 30 beads, with the larger holes in them. There will now be four threads in these last beads. This will hold the thread securely. If a bead breaks while passing the new weft through them, it can be easily replaced with the old needle and weft. Complete the operation of the heddle in the normal way. Make one complete row of beads with the new weft, before cutting off the old weft with its needle. Crossing of the warp threads locks the new weft in place securely, hence no knots.

If single warp threads had been used in the beadwork, it is necessary to make a full row of larger hole beads, and also a full row of beads with the new weft.

## *Lazystitch on a Loom Using a Heddle (PHOTO 7)*

Lazystitch, a type of beadwork very popular among the plains tribes, was usually not done on a loom, but directly onto the material. However, methods have been devised to accomplish this kind of beading, using a heddle, and doing it on a loom. Lazystitch must be applied to a backing material, be it cloth, leather or other type of material. The lazystitch beadwork turned out on this

loom also must be applied or appliqued to a backing material. In that respect the two methods are the same.

Lazystitch is used to cover large areas; vests, shirts, cuffs and leggings. Curved areas present no problems. Loomed lazystitch does not lend itself to curved places, but in design areas there is no problem.

The advantage of doing lazystitch on a loom with a heddle is that the actual beading process is easy, the speed of doing the actual beading is very high, no broken or bent needles, and no punctured fingers applying the beadwork to the backing material. Overall time consumed is less than with traditional ways of lazystitch. Actually, a much stronger piece of work is produced and can stand more rough usage.

Lazystitch is done in "lanes". Usually seven to nine beads wide. Doing it on a loom, lanes are also made of 7 to 9 beads wide. Wider lanes can also be done. Any type of thread can be used, but a modern thread of polyester/dacron is better than cottom thread. Polyester/Dacron threads are very strong, water resistant, even waterproof, so will not rot due to perspiration and moisture. An ordinary heddle can be used. A heddle made for lazystitch in which the slats are wider is needed because a bead is placed between each hole and slot (PHOTO 7).

Either single or double warp stringing can be used, but if you wish to remove the inner warp threads, making the work appear just like traditional lazy stitch, single warp stringing must be used. If you intend to leave the warp threads in the finished work, double warp stringing will give you a very strong piece of beadwork. It also looks like the usual type of lazy stitch, including the hump as is normal in lazystitch.

In a lane that is eight beads wide, nine threads are required. Threads # 1 and # 9 should be of a strong thread, such as a Poylester/Dacron. Warp threads # 2,3,4,5,6,7,& 8 can be of a finer thread and also stretchy, such as nymo, which is a nylon thread. This thread is transparent so will not show much if the warp threads are left in the completed beadwork. When the inner warp threads are to be removed from the work, nymo being a relative thin thread, will occupy little space between the beads and the beads will be closer together.

1) String the loom in the same manner as in doing regular heddle beading. The difference is that you are only making a lane of eight beads wide. To begin the lazystitch project, it is best to make a simple headband of three lanes wide. String the loom for three lanes of eight beads wide, nine threads each, skip one hole or slot, depending where the ninth thread comes. This will give you some room between lanes, making it easier to work.
2) Weave the weft thread back and forth about six times for a woven section before starting the beading on lane 1.
3) Bead a section of several inches before starting lane 2.
4) Do beading on lane 2. Bead for an inch or two. If you bead more it will hinder the up and down movement of the heddle.
5) After reaching the same distance that you have beaded lane 1 or 2, start lane 3; then bead for an inch or two then go back and continue with lane 1 for a few inches. The beading process is rapid, because you can string many rows of beads on the weft thread, so no stopping is necessary after each row. Be sure to keep your pattern matched with the previous lane.
6) Continue until you have reached the length of the headband that you are making.

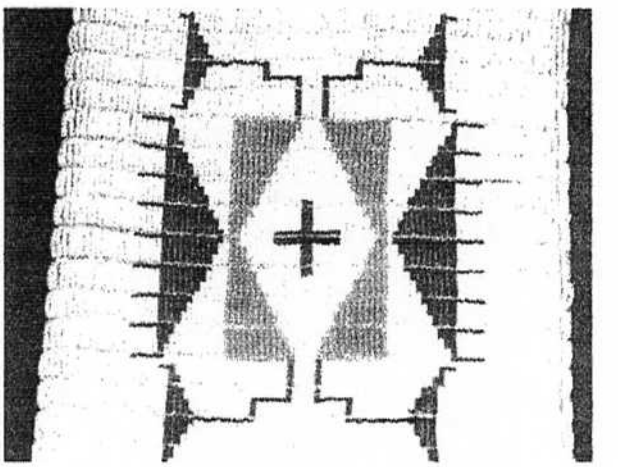
It is very important that you sew the beadwork to the backing before taking it from the loom. If you do not sew the backing on before taking the beadwork from the loom, you will have 3 unmanageable strings of beads, and it will be a mess. The backing can be of any material, leather or a good grade of cloth, ultra suede, a synthetic cloth, is very strong. Many colors are obtainable, some appearing like leather and easy to work with. Using leather presents a problem in sewing the backing on because of its toughness. A later problem will come after using the leather beacked beadwork; the leather will rot and crack, making the beadwork useless. Ultra suede solves this problem. True it is expensive, but for long lasting beadwork, it is well worth its cost.

The sewing of the beadwork to the backing is easy; just a simple overhand stitch. Sew the outer thread of lane 1 to the edge of the backing material. Sew thread 9 and thread 1 of lane 2 together to the backing material. These threads are next to each other. Sew thread # 9 of lane 2 and thread # 1 of lane 3 together to the backing. Thread # 9 of lane 3 is sewn separately to the backing. Since you have used Elmers glue on the end threads of the warp threads, just tuck the loose ends of the warp threads between the beads and the backing material. After all the lanes are sewn down, the inner threads can be removed, simply cut them in about two inch sections, and pull out the cut portions. Be sure you do not cut the Polyester threads that you used for each lane; # 1 and 9 of each lane.

While sewing the beadwork down, you might have noticed that the hump, which is characteristic of lazystitch beadwork is there. With some experience doing this type of lazystitch, it is possible to increase the hump, or lessen it to your satisfaction.

To be able to remove the warp threads, the loom must be strung single warp. With double warp stringing the warp threads are crossed over at each row, and it will be impossible to remove the warp threads.

***PHOTO BELOW** – Close-up of heddle lazy stitch on pipebag (Page 4, lower right).*



# BEGINING BEAD WEAVING

Lets start with the language of the weaver. We need to communicate when we are talking to each other.

**LOOM:** An apparatus for holding the threads in a designed arrangement.

**WARP:** The threads held by a loom considered to be fixed threads. This is not aways true but more will be said later.

**WEFT:** The threads that carries the beads or color. The mobile thread fixed to the warp threads, usually at right angles.

**SHUTTLE:** The implement used to carry beads or color with the weft thread, then to be fixed to the warp threads.

**HEDDLE:** Tool used to move more then one set of warp threads in a predetermined pattern.

**SHED:** Opening between the sets of warp threads. Area for passing (throwing) the shuttle.

**WARP SEPARATOR:** A means of holding the shed open whild working.

**WARP TERMINAL POINTS:** A place for holding the ends of the warp threads.

**WARP TENSIONING DEVICE:** Used to maintain constant tension on the warp threads.

**FIXED WARP:** The thread in the slot of the heddle.

**MOVEABLE WARP:** The thread that is in the hole of the heddle.

**DOUBLE WEFT:** Two threads in the weft (shuttle).

**SINGLE WEFT:** One thread in the weft (shuttle).

## THREADS

**POLYESTER:** Probably the best thread to use in beadwork. Best for warp threads beca has very little stretch. Can be used for weft thread. Does not rot or stretch, very stron

**NYLON:** Good weft thread. Too much stretch for warp threads. Sun will deteriorate. Slippery, has at least 10% stretch.

**COTTON:** Can be used, not recommended. Will deteriorate and absorbs water.

**DENTIAL FLOSS:** Can be used for warp or weft. Strong. Longevity?

**SILK:** Old time white man's thread. Will rot with age.

**SINEW:** Old native material. Last well, is strong.

## TYPES OF HEDDLE WEAVING OF BEADWORK

**DOUBLE WARP:** Two sets of threads (two threads between each bead) very strong, eas set up and easiest to operate. Best for beginners.

**SINGLE WARP:** Two sets of threads ( one thread between each bead) well suited for w to be sewn on to a strong backing. Few problems in set up. More difficult to operate. advised for beginners.

**LAZY STITCH:** Two sets of warp threads (two different types of thread in warp). Lane warp threads are doubled warp,inner threads are single warp. A fast way to duplicate way that the native american worked large beaded objects. Operates similar to single warp, most dofficult to opreate. Opreator should be familiar with double and single w work. Must be fastened to a backing before removing from the loom. Single warp thr are then removed. Beautiful when done properly. Takes most time to complete, good large areas.

# STRINGING THE LOOM

Stringing the loom means putting the warp threads (the ones running lengthwise on the loom) into their proper position. For heddle beading the warp threads are strung through the holes and slots of the heddle. There are two ways of using warp threads; single warp, and double warp.

Single warp has two sets of threads ( one thread between each bead and one thread in each of the groves of the thread holder dowel rods on either end of the loom ) is well suited for work to be sewn on to a strong backing. There are few problems in set up, it's more difficult to operate and is not advised for the beginner.

Double warp has two sets of threads, two threads between each bead and two threads in each groove of the thread holder (one on top of the other). This method is very strong, easy to set up - easiest to operate and best for the beginner. With either method there is only one thread in each of the holes and slots of the heddle.

The number of threads needed depends on the number of beads in the planned beadwork. To maintain the balance of the heddle, it is best to string the loom and heddle working from the outer edges toward the middle. If you are planning a head band of 25 beads wide, 26 threads will be needed for single warp. For double warp 26 pairs of threads will be needed, because a thread must be placed on the outside of the 25th bead.

A polyester thread is recommended for its strength and is generally waterproof. Nylon thread is not recommended for warp threads, because is stretches too much. If stretched too much during the beading process, the work will tend to bunch up when it is removed from the loom. The beaded portion of the headband is usually about 17 inches long. About 6 inches is needed for the easy operation of the heddle, therefore the warp threads must be 23 - 24 inches long or twice that long to have less knots to tie.

1) Mark the center hole of the heddle and center groove on the thread holder rods of the loom. Then count off 11 holes on either side of center.

2) Push a thread through the 11th hole, place it in the 11th groove from center of the thread holder rod 'B', continue down and tie it to the screw (rod 'A') on the same side that you placed the thread in the groove on.

3) Take the free end of the thread, place it in a corresponding groove in rod 'C', down and under rod 'D' on to rod 'E' and around the screw in 'E', back under 'D' up and in the same groove in 'C' through a slot in the heddle next to the thread in the hole that you used.

4) Now that you have the length that you want, cut some more threads to the same measured length.

5) Count off 11 holes to the other side of the heddles center and string that thread in the same manner as you did the first.

6) The heddle should hang fairly level at this point. Tighten the threads as tight as possible. This will give you some idea of how tight the warp threads will be when finished.

7) Continue stringing each thread toward the center, from one side, then the other. Maintaining as even a tension as possible.

8) Additional threads can now be placed in the outer holes and slots to make up the number of threads needed for your piece of work. Remember the number of threads will always be one more than the number of beads. For example: for a 21 beaded piece you need 22 threads of lanes. An odd number of beads will give you a defined center line.

for a single warp there will only be one thread in each of the grooves of rod 'B' and rod 'C'.

## LOOM BEADING WITH A HEDDLE

With the end of the loom towards you (this is the end with rod 'A' and the screws are widest apart) and the loom strung, grasp the heddle top and pull upward. This separates the warp threads, creating a "shed". With the other hand insert the "separator" rod, between the separated warp threads. (The separator rod is a 3/4 " piece of dowel rod, pointed at both ends, a little longer than the width of your loom or intended piece of beadwork, and merely serves to hold the warp threads apart, thus freeing both hands).

## TO START BEADING

With the warp threads separated - put in a small round object such as a skewer or small dowel to separate the moveable and fixed threads. Shift the heddle at this point to the opposite position and install one row of beads the same size as you will be using. Shift the heddle again to hold the beads in place. Tie a series of half hitches on the bottom side of the row of beads and define the lanes at the width of the beads. Do this all the way across. Next tie half hitches on the upper side of the row of beads all the way across. You now have the width of your beadwork established. Put in about eight to ten rows of plain thread, making sure that you shift the heddle after each row of thread is put in. You have just woven a small piece of cloth. Tie a series of half hitches to define the bead lanes again all the way across. You are now ready to start your pattern.

**NEVER USE THE HEDDLE TO PACK EITHER THE THREAD OR BEADS. THE HEDDLE CANNOT STAND UP UNDER SUCH USAGE.**

## WEAVING

If you have followed the instructions your first rows of beads will go into place with very little trouble. Crossing the warp thread locks the beads in place. If you are having trouble with the thread in the wrong place, this can be corrected by using a dental pick or a nut pick is a good tool to move threads either over of under the bead depending which way the warp threads are crossed, to its correct place so that there are two warp threads on each side of each bead.

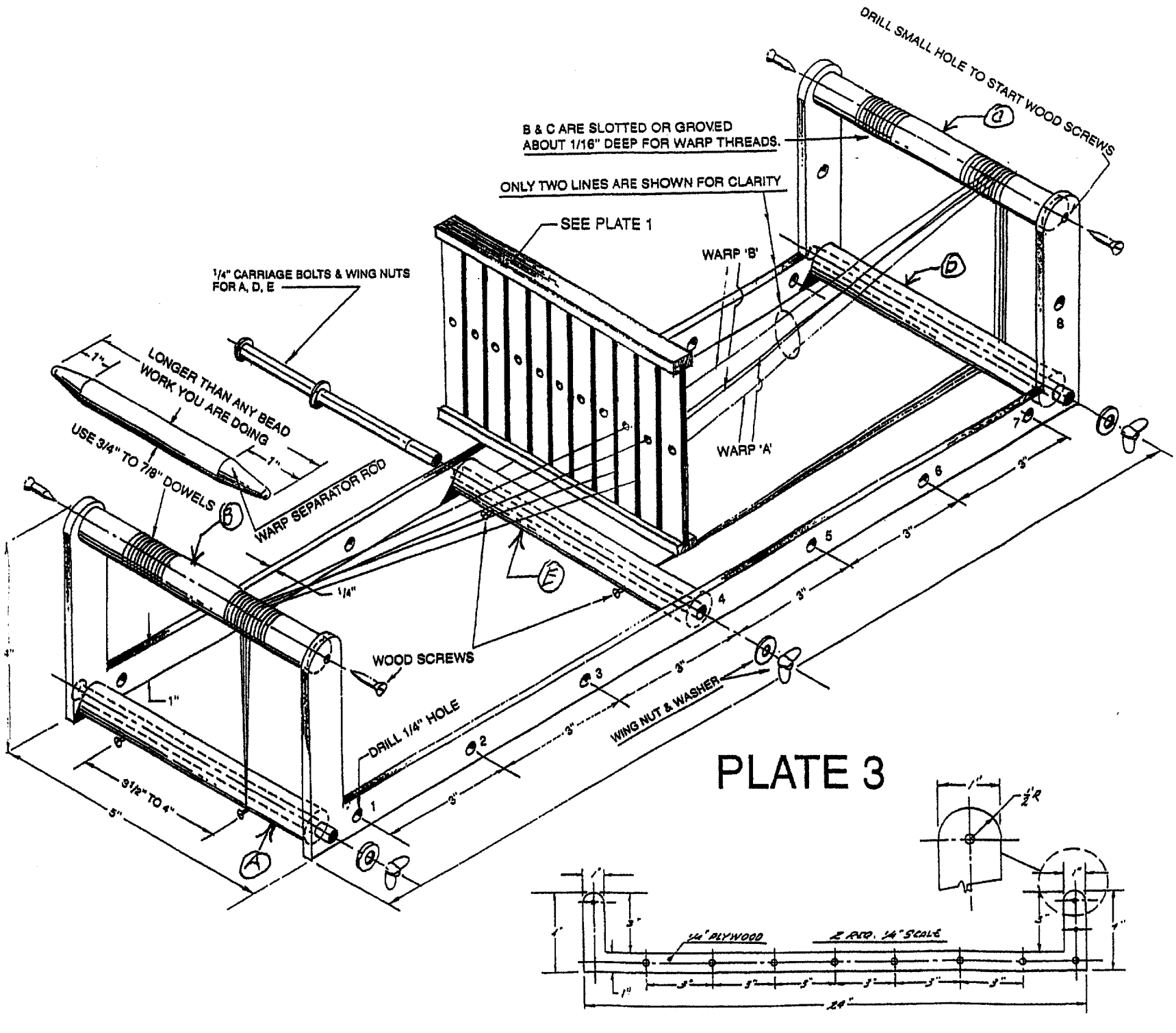
Weaving with a heddle loom requires that you work left to right and also right to left. If you are using a printed pattern you may high light every other row as a reminder that you are working in both directions. Moving the beads into the proper lanes will require some manipulation of the threads. This is particularly true on the first couple of rows. Here again the dental tool will come in handy. After the first couple of rows you will find that holding the thread snug (not tight) at about a 30 degree angle and working the beads into the proper lanes will work. As you get a few beads in place on the warp farther from the needle, pull them down to the lanes that are already set in the warp. Continue working the remainder of the beads into place and bring them down into the completed row. Don't get discouraged if it takes some time to learn this process. Another hint that may help, keep plenty of thread on the side away from the needle so that you can maneuver the beads. When they are all in place pull the thread tight (just up to the edge warp thread). Change the shed with the heddle after each row is completed. This locks the beads in place. At the finish of the beadwork weave eight to ten rows of weft as was done at the start.

## EDGE BEADING

Edge beading can be done at the same time as the beading progresses, by placing the edge bead on the weft thread, in addition to the design beads, but leaving it on the outside of the outer warp thread. These beads will not be opposite each other on each side of the work, but on adjacent rows.

## TO ADD A NEW WEFT THREAD

To eliminate knots, when a new weft thread is needed, the following is suggested. Do not tie the new weft thread to the old one. At least two rows before running out of weft thread, select enough beads with larger holes to complete at least two rows. Complete positioning them in their proper places in the usual manner, leaving the old weft with its needle attached hanging at the side of the work. Thread a new needle and pass it through the last two rows with the larger holed in them. There will now be two threads in these last beads. this will hold the threads securely. If a bead breaks while passing the new weft through them, it can be easily replaced with the old needle and weft. It will not be necessary to tie any knots in the weft thread. The pinching of the warp threads will make it difficult or impossible to pull out the new thread. Make at least one complete row of beads with the new weft, before cutting off the weft with its needle.


DRILL SMALL HOLE TO START WOOD SCREWS
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ONLY TWO LINES ARE SHOWN FOR CLARITY
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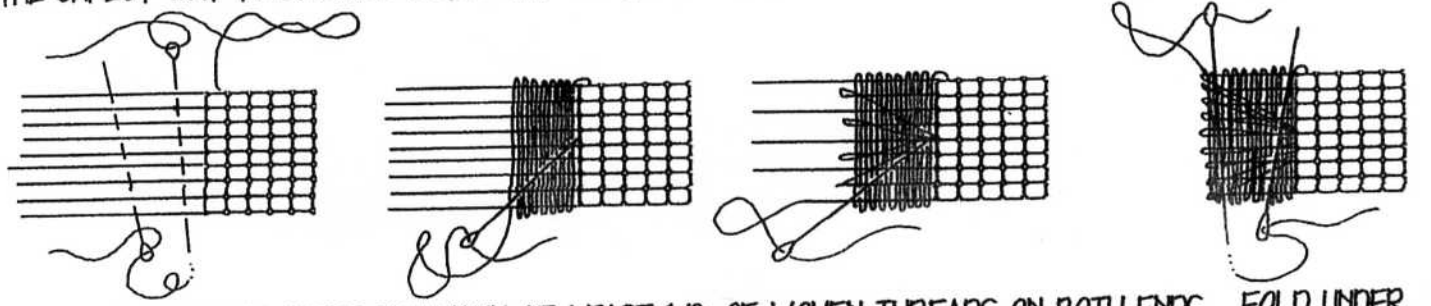
WARP SEPARATOR ROD
1/4"
WOOD SCREWS
DRILL 1/4" HOLE
WING NUT & WASHER
3 1/2" TO 4"
5"
3"
1"
PLATE 3
1/4" PLYWOOD
2 REQ. 1/4" SCALE
24"

THE SAFEST WAY TO END ALL LOOMWORK: DO THESE STEPS BEFORE YOU TAKE THE WORK OFF THE LOOM.



TAKE OFF THE LOOM AFTER YOU HAVE AT LEAST 1/2 OF WOVEN THREADS ON BOTH ENDS. FOLD UNDER.

THIS PROCEDURE CAN ALSO BE USED FOR THE START OF YOUR BEADING

# *Gourd Stitch Beadwork*

**History:**

I would just like to give a brief explanation of Gourd stitch, where it is used and how to research it and to start creating your own patterns for use in American Indian Regalia. Gourd Stitch is often times called Drop Three, or Peyote Beadwork. This is because of the use of this style of beadwork by the Peyote people, and in their religious items, such as Gourd rattles. But myself, not being an American Indian, I feel it is safer for me to call it Gourd Stitch, so as not to indulge into something that I am not a part of and do not understand or practice. Gourd stitch can be used to bead the surface of almost any cylindrical object. Dance sticks, Roach pins, Fan Handles, Gourd rattles, etc. It is most common to used bright contrasting colors to draw attention to the detail of the article. Usually sizes 12/o, 13/o, and up through 18/o are used, but you may see smaller beads used. Many people like to use cut or faceted beads because of the sparkle that they add. I mostly use size 13/o cut beads. You will want to do several small practice pieces before starting to do any serious projects.

**How to start:**

1. Start by covering the object to be beaded with a soft leather or felt, but leather is preferable.
2. Push your threaded needle through the leather at the top and begin to sting on beads in groups of 6. This first row of beads should be the same color.

3. Continue stringing on beads until they completely encircle the circumference of the object. You will go clock wise if you are Right handed and Counter clockwise if you are Left handed.
4. The number of beads must be divisible by 6, even if the string of beads is overlapping the starting point.
5. Now divide the number of beads by 3, and take off that number. Ex: if you used 36 beads to encircle the object then you will take off 12.
6. Now go through the first bead that you placed on the string, with the needle. String on one bead, skip bead # 2, and go through bead #3. Continue this process until you have gone completely around the object. At this point you will see holes form in which you are to place the following beads.

**Tips to remember:**

You may want to use beeswax to protect your thread from fraying and to prevent knots from forming. Always try to use a smaller needle than the size of the bead you are using. Practice makes perfect, and by the way, no beadwork is ever perfect, but your goal is to be close.

You can get some information on Gourd Stitch at:
http://www.north-wilkesboro.com/nativeamerican/gs.htm

Figure 1: After determining the number of beads around the object, make sure it is divisible by 6 and take off 1/3 of the beads. Wrap the beads clockwise around the object and go through the first bead in the direction of the wrap. This example shows an object with a 36 bead circumference (36-1/3=24).

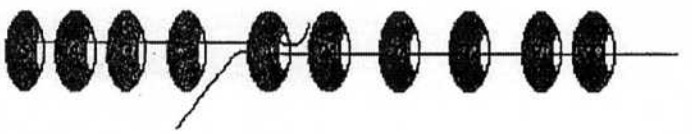


Figure 2: The next step is to pick up a bead, skip one bead and go through the next bead and pull the thread through. This process continues until you have gone all the way around the object.

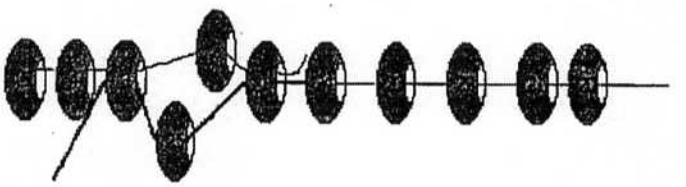
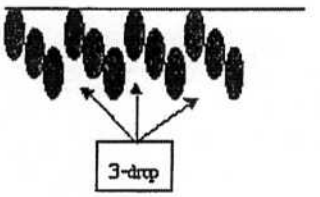
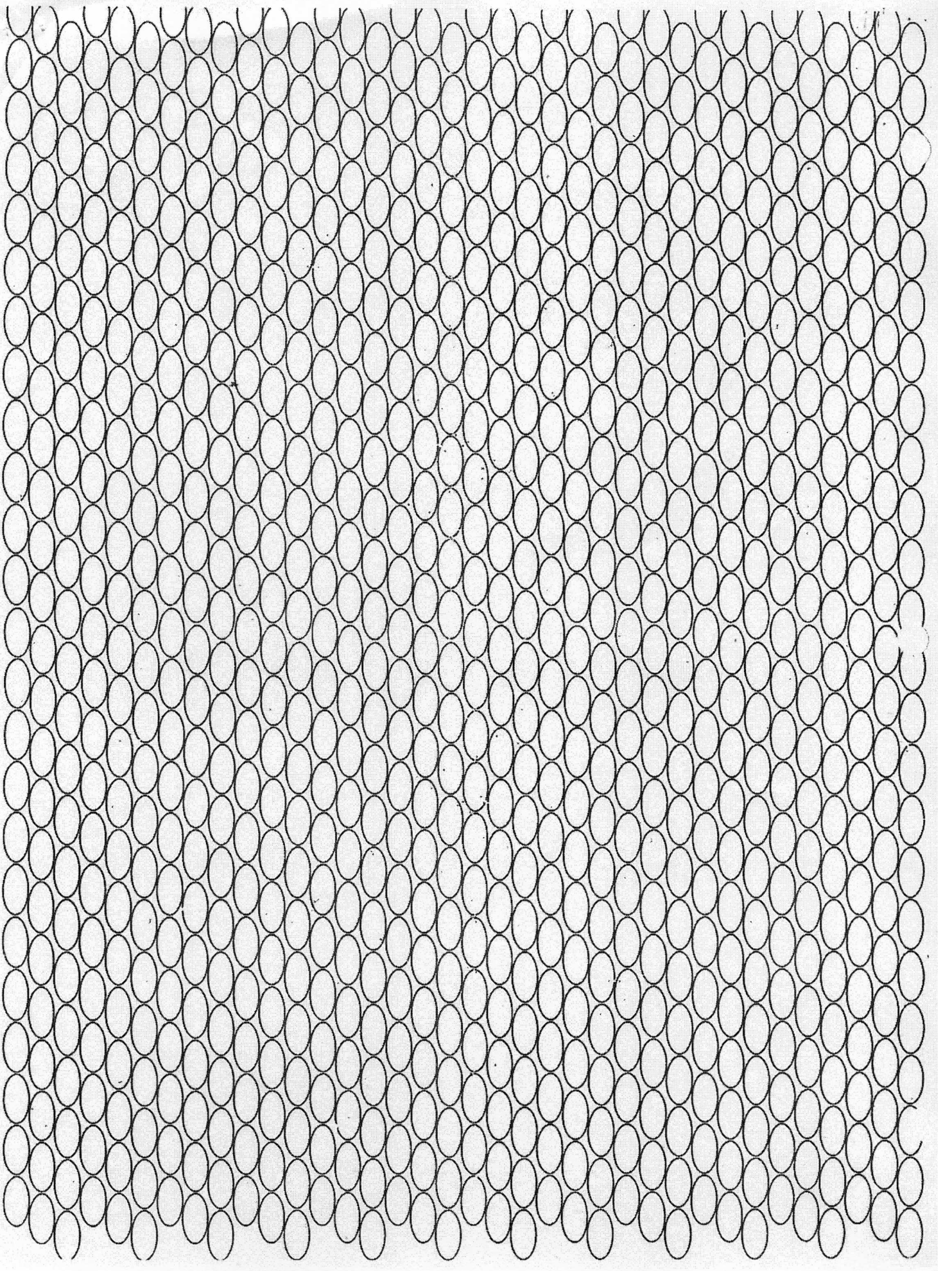


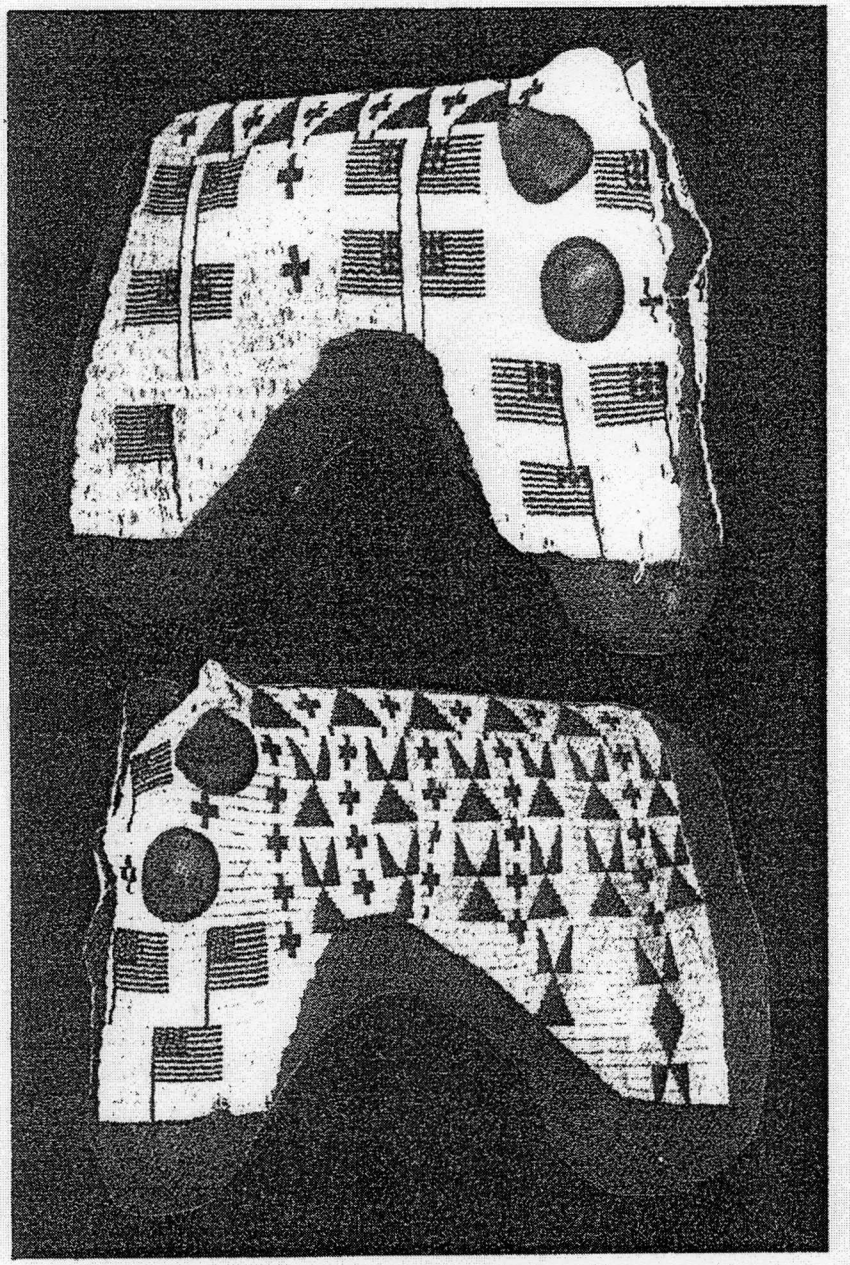
Figure 3: Now begin adding beads by going through the lowest bead of each "drop three".




Now have fun, and enjoy this creative style of beadwork. Once you master this process I will try to teach an advanced Gourd stitch class. Feel Free to ask questions and give me your comments. I welcome any output you may have.

Yours in the Order,
Lee Trowbridge





LAZY STITCH BEADED HORSE HEAD COVER, Sioux; C.1900. Note that both sides are different. White background. Geometric designs are red, navy blue, medium blue and yellow. Exhibit # 193-American Indian & The American Flag. Photo by Dennis Stelz.

# *Lazy Stitch Beadwork*

*by PETER BUGELSKI*

4/May, 1977

One of the most widespread Native American craft techniques is lazy stitch beadwork. It was or is still practiced, in some forms, in every culture area. The etymology of lazy stitch, like that of many of the terms associated with Native American culture, is uncertain. Lyford, in "Quill and Beadwork of the Western Sioux" [1], states that the name describes the humps the rows of beads form. Miller, in "A Manual of Beading Techniques" [2], holds that the term is a reflection on the small number of stitches required, relative to spot stitch beadwork. Others have said that the name is a commentary on the speed at which the work progresses, again in comparison to spot stitch.

On the Plains, lazy stitch was one of the earliest methods of attaching beads to costume articles. Most designs of the "Pony Bead Period; 1800-1840" [1] could be done in porcupine quills as easily as beads. As time passed, beadworkers became more adept in this new medium. Not only did their skill increase, but new bead sizes and colors became available to them. These new skills and beads gave rise to new design forms as seen in the "Second Seed Bead Period; 1870-Present"[1]. This development is very evident among the Sioux whose pipe bags and dress yolks, circa 1880, with their light, airy and complex designs are the epitome of lazy stitch.

Seed beads used in the nineteenth century were, for the most part, made in Italy. These were most commonly of the 4/0 and 5/0 sizes. Today most beads are imported from Czechoslovakia and range from 10/0 to 13/0. This is not to imply that these are the only sizes used in lazy stitch. If a bead size was available, it would probably find a use in lazy stitch. The above mentioned sizes are the most common.

The two sizing systems are not exactly compatible. 12/0 roughly corresponds to 4/0 and 13/0 roughly to 5/0. Substitutions across these sizes will not give too much problem in most designs. In most cases try to keep all beads the same size i.e., do not mix 13/0 with 11/0. Mixing bead sizes makes executing designs sheer agony.

Just as the sizes that are available change, so do the colors. Today, many of the old colors, e.g., greasy yellow (#28), are very rare and dear. In their place are many new colors and types, e.g., aurora borealis. Beadworkers have been quick to pick up these new colors and types, giving contemporary beading a "new" look.

As this article concern itself with the technique of lazy stitch only, there will be no discussion of designs and colors. A word of advice however: to produce an article of craftwork and have it conform to the tribal style and period which inspired it, you must use the proper colors, bead size, design, and base material of that style and period.

## BASE MATERIALS

Many things have been covered with lazy stitch. Some of the more unusual items seen are baseball caps, doctor's bags, and dog collars. Most costume work is done on leather or sometimes canvas. Almost any leather will do, but the smoothest beadwork will result if leather which is neither too soft nor too thin is used as the base.

During the reservation period, canvas was sued by some beadworkers. Good work can be done on canvas, but for the most part the work is inferior to that done on leather. If you choose to try canvas, a tight, stiff weave is essential to smooth work. A modern innovation is to build a sandwich of several layers of canvas and brown wrapping paper. This sandwich is then quilted on a sewing machine before the beadwork is started. Such a base can be especially useful for items which must stand on their own, such as cuffs or modern women's leggings.

THREADS

Dating from prehistoric time is sinew. In sewing with sinew, an awl is used to make a hole through the leather, and the pointed end of the sinew is passed through this hole. Although this may seem tedious, many contemporary beadworkers still use this method.[4] I have found it easier to use a regular beading needle with sinew. This makes the repeated use of an awl unnecessary. Because of the shortness of the thread, it is necessary to change threads often. When forming a thread, you roll the sinew to twist it. This causes one end to form a very fine point. This point makes either putting the sinew through a hole in leather or threading a needle very easy. Because of its thickness and its stiffness when dry, sinew imparts a lot of stability to beadwork. This stability goes a long way in giving beadwork the "old time" look so strived for by many hobbyists.

Sinew thread is easily formed from the dried strips carried by various suppliers.

- Grasp the strip in both hands, palms down, near the center. Your thumbs should be about two inches apart.

- Push your hands together so your thumbs touch; now rub your hands back and forth, breaking the strip into fibers.

- Continue rubbing until the fibers are just smaller than the hole in a bead. The strip will probably have some fascia adherent.

- Remove what is loose.

- To prepare a thread, select a group of fibers of the beforee mentioned size and pull it away from the remainder. It may be necessary to pull off some fibers to thin the thread down. The group of fibers will have two different diameters at its ends, a point and base.

- Grasping the point between thumb and first finger of your left hand, pull the fiber through your mouth to soften it.

- When the fiber is thoroughly moistened, use your right palm to roll the fiber down your right thigh. You should still be holding the point in your left hand. Keep rolling the fiber until it is twisted into a smooth thread. It will be necessary to moisten the thread from time to time to keep it pliable.

All sorts of commercial threads have been used for lazy stitch. Although cotton is reported to wear poorly [1], it is seen on some pieces. Waxed linen held favor for a time and "Nymo"[5] is currently in vogue with many beadworkers.

Always double the thread and wax it well. Waxing will help prevent the thread from tangling. The wax will be rubbed off as the many stitches are taken. This makes it necessary to re-wax the thread as the work progresses. Size D Nymo is better to use than size O. It stretches less and the larger diameter fills the holes in the beads better, adding stability. You should have little trouble threading a beading needle with D Nymo if you wax it well and flatten the tip slightly. With a very small needle, carefully beveling the tip of the thread with a scissors will aid threading.

TECHNIQUE

*1* The first step is to lay out grid lines forthe lanes of beadwork. This should be done on the good side of the leather (the side which will be viewed). PHOTO 1 The spacing between the lines is either set by you and the design fitted to the number of beads per row need to cover this space, or the spacing is determined by the beads and the design you will use. The width of a lane varies with the costume piece, 8 - 10 beads being customary. Larger articles tend to

have wider lanes.[6] If the spacing is to be set by the number of beads in a row, string four times this number of beads and measure distance taken up. Dividing this distance by four will give the width of one lane. It is necessary to average over a large number ofbeads to minimize the effect of irregularities of individual beads.

**2** The next step is to lay out the center lines of each design element. (PHOTOS 1 & 2) It is useful to make a drawing of the design on graph paper. This gives the number of rows in the design as well as the color changes in each row. (PHOTO 2) It must be remembered that beads will not exactly conform to any graph paper so the actual finished length of a design cannot be determined in advance. A rough approximation is given by the size of the beads using the following relation: 10/0 beads give roughly 10 rows per inch, 11/0 give 11 rows per inch. For Italian beads: 4/0 give 4 rows per centimeter, etc. Note: This is rows and not beads in a row. When the center lines are laid out, give some extra space between design elements to allow the background to absorb the actual finished size of each element. As experience is gained, you will be better able to estimate the dimensions of planned designs.

**3** The first lane of each design element should be started at its center line. Bead toward one end of the element. After the first 1/2 lane is completed, (PHOTO 3), bead the other half. Do the same for each design element in the first lane, then fill in the background. After the first lane is completed, work can be started at any point you wish on the second lane. Starting at the center lines ensures even spacing of all design elements.

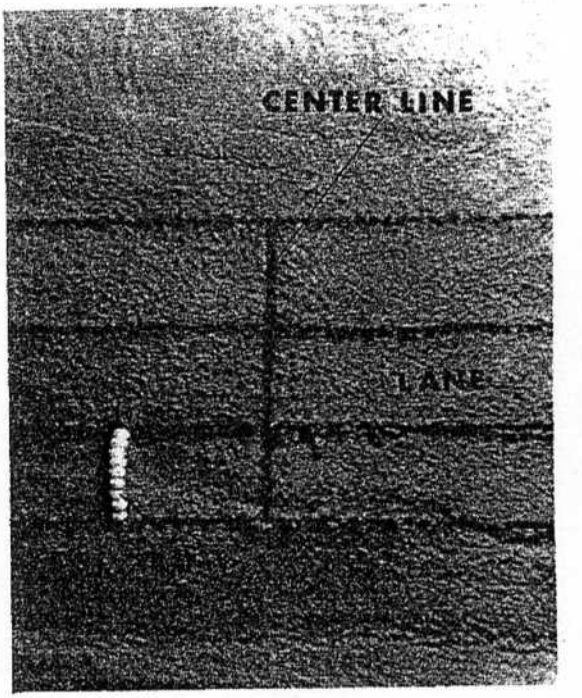
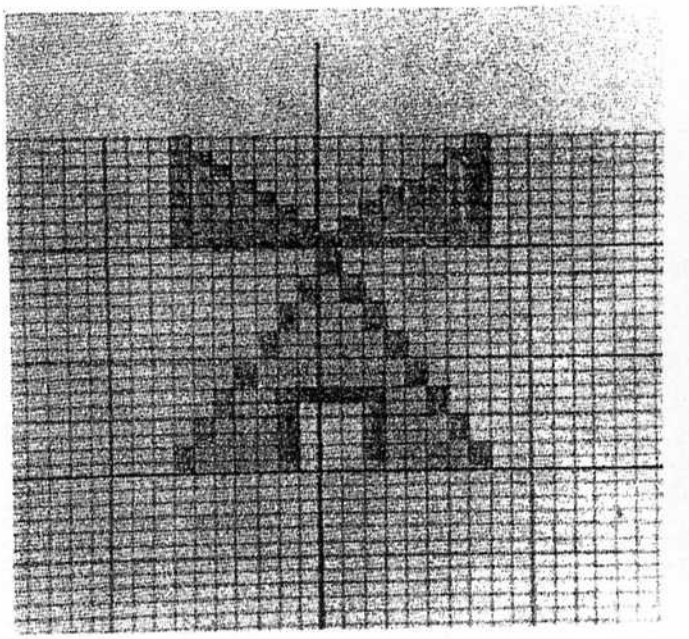



PHOTO 1 (above) - Grid lines, center line and one row of beads.

Photos by Peter Bugelski

PHOTO 2 (below) - Bead graph paper with design element showing center line.



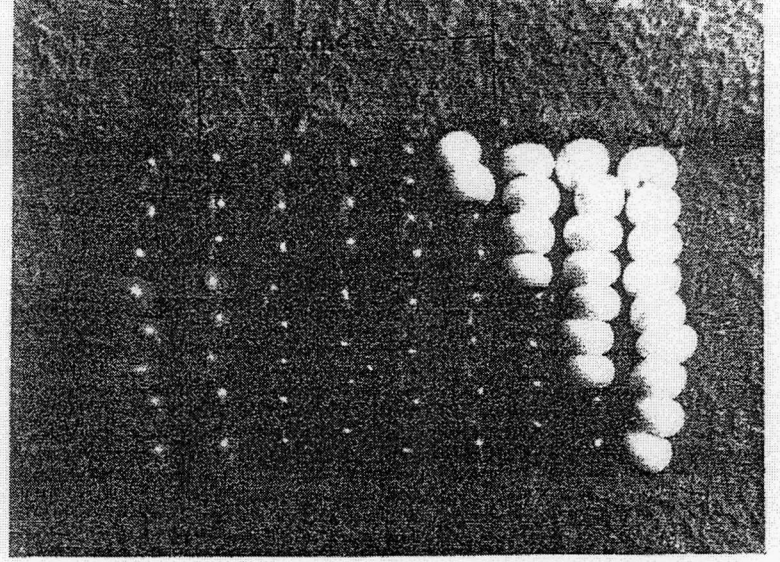


PHOTO 3(left) - One lane with 1/2 of design element complete.

PHOTO 4(below) - Close up showing proper size of stitch.

ALL PHOTOS BY Peter Bugelski

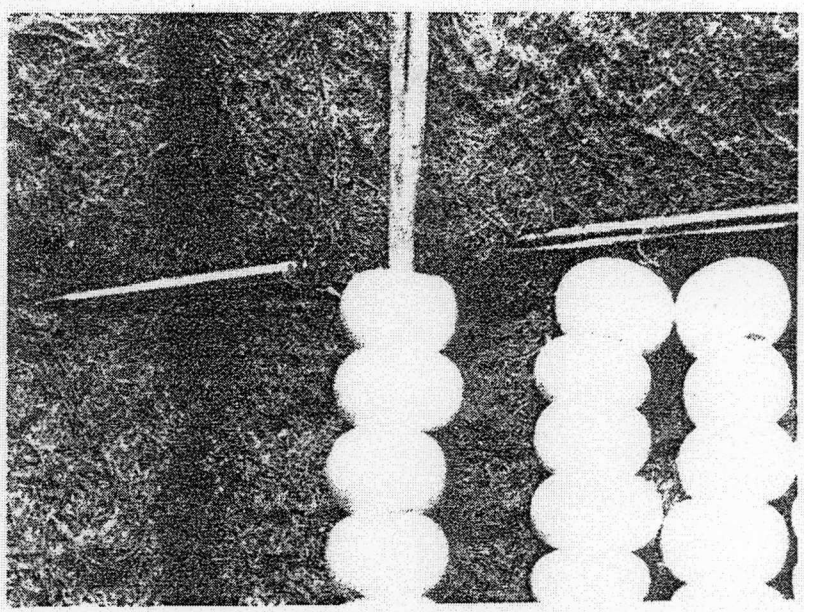
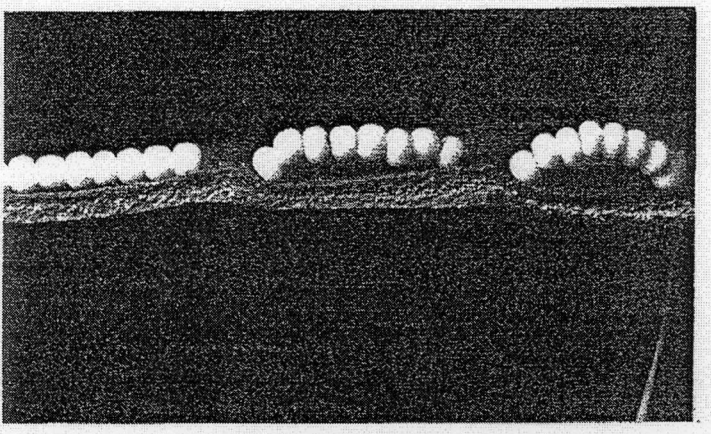
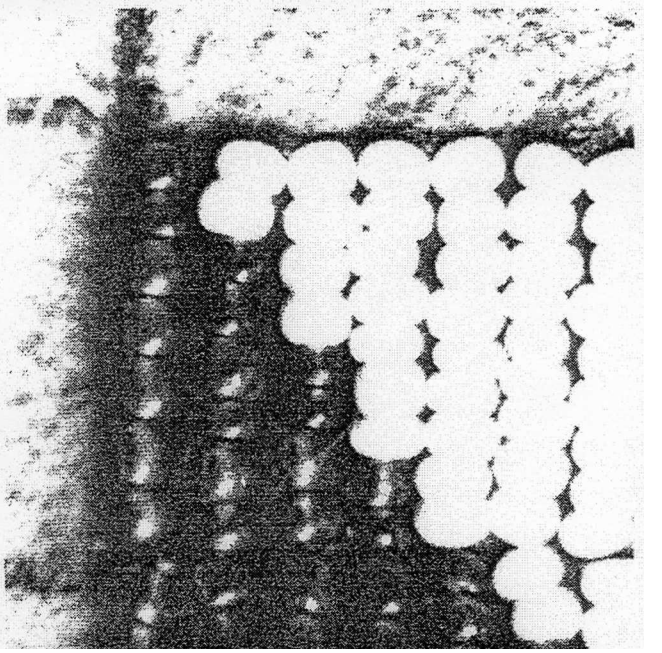


PHOTO 5(below left)- Cross section showing too much, too little, and proper humping of rows.

PHOTO 6 (below right) - Close up showing rows matching and changes in number of beads per row.





8/May, 1977

# *Lazy Stitch Beadwork*

**4** To start the work, knot the thread and push the needle through the leather so that it comes out on one of the grid lines. (An awl may be of some help.) Put the beads on for the first row, e.g., eight, and take a stitch just through the surface of the leather on the grid line on the other side of the lane. The length of this stitch should be approximately one and one'half bead widths.(PHOTO 4) If the leather stretches a lot, it will be necessary to increase the size of the stitches. Stitches that are too small will result in cramped rows. Those that are too large will allow the leather to show through between the rows.

When the thread is pulled taught, the beads should hump just a little bit. A common mistake is to hump the beads too much. (PHOTO 5) (The center row shows the proper amount of hump with the extremes of too much and too little on either side.)

**5** After the first row is sewn down, put on eight more beads and take a stitch on the line where the thread first came through the leather. Continue in this manner, with stitches alternating on either side of the lane until 1/2 of the design element is complete. (PHOTO 3) When it is necessary to change threads or stop at the end of a lane, push the needle all the way through the leather and knot the thread on the wrong side. Rows of the second and all subsequent lanes should match rows of the first. (PHOTO 6) To do this, care must be taken to make all the stitches match.

With minor adjustments, the technique on canvas is the same as on leather. Because of the thiness of the base, each stitch must pass completely through the canvas. Some hobbyists stretch the canvas on a frame. This is not recommended. When the work is removed from the frame, the canvas will "snap'back" causing the work to bunch up. To avoid the stretching and contraction, work without a frame, on a flat surface as you would with leather. Extra care must be taken to avoid stitches which are too small. With some canvas, it may be necessary to make stitches which are two bead widths rather than the usual one and a half. Experience will be the best teacher for the proper width of stitch. The problem of too much "give" in the base is eased by using the sandwiched canvas and paper base. Another problem with canvas is the necessity of binding or turning under the edges to avoid fraying.

This concludes the discussion of the basic technique. It should be remembered that reading this first section will not make you an expert lazy stitch beadworker. No amount of reading will do that.After the basic knowledge is acquired, hours and hours of practice are necessary to build your skills. There is one final catch. Being an expert technician is not enough. You must also study colors and designs at every opportunity, from museums, books or private collections. You can only consider yourself and expert when you can design and execute beadwork that will pass for the best Native American work. When you begin beading, it will probably be best for you to copy designs from artifacts, but don't be surprised if you see two or three other guys or gals with exactly the same colors and designs. As you practice your beading skills, also practice your design skills so that eventually your beadwork will be truly yours. The sooner you get away from copying artifacts, the better, but not before you have mastered creating designs which "look Indian".

(continued on p.10)

As you practice, you will develop little tricks which will make your beading easier. The following is a list of some of the tricks I have seen done by others or developed myself. These particular tricks may or may not work well for you, but they should serve as a guide to creating some of your own:

I have seen three methods of handlind beads: dump them all together and sort through as you need them, keep each color separate but loose in a dish or keep them on the hank thread. For the last method, pull one thread from the hank and tie one of the ends in a knot. You can then grab just the number that you need between thumb and first finger. You can then pass the needle through the holes as you hold the beads between your fingers.

A plastic coffee can lid is a handy bead tray. It has a lip which keeps the beads from getting all over and is flexible. This flexibility allows you to fold it so you can pour the beads into a closeable container. Its shallow depth allows a low angle of attack with a needle. This makes getting the particular bead you want onto the needle easier.

The number of beads in a row is not absolute. Due to irregularities in the size of each color,it is necessary to sometimes put more or fewer beads in a particular row. This is seen in PHOTO 6. All the beads used were nominally 11/0. In the row on the left, there are only seven beads. The three background rows on the right have nine beads per row. Caution is advised to keep the design straight. If there is a triangle in the design, as in the illustrations, you should be able to put a straight-edge along the side of the triangle. To make sure the design stays this straight,make corrections in either the background (PHOTO 6, fourth row from the left) or in the body of the triangle(PHOTO 6, extreme left row).

It is better to use a pencil for marking out the grid and center lines. Although the line from a ball point is easier to see, the ink soaks into the leather making removal impossible. Pencil is easily rubbed off or covered up with Oklahoma chalk.

Cheyenne style beadwork humps less than Sioux style.[6] To get this flatter work, the stitches of one lane are sewn under the rows of the preceding lane. When the thread is pulled taught, it will pull some of the hump out of the preceding lane.[4]

Special bead graph paper gives a good approximation for the finished dimensions of a design (PHOTO 2). Ben Hunt's book[7] provides a blank sheet, or it may be obtained from craft supply stores. Remember that it will give only an approximation, not the true finished dimensions.

You must change the width of stitch when beading a curved lane. This is seen in moccasins and rosettes. PHOTO 7 shows one of a pair of Sioux baby moccasins collected on the Standing Rock Reservation in 1972. They are fully beaded in 13/0 beads in modern colors. Note how the border lane has greater spaces, due to wider stitches, along the lower edge, as opposed to the upper edge. For very tight curves, it may be necessary to put in a partial row, i.e., one with only five beads, to fill out the outer edge of the curve.

Care must always be taken when tying off threads. This is especially true when working with Nymo. Always take a few stitches on thw wrong side at the end of a lane or when you must change threads. One way to ensure a secure knot is to leave a few inches dangling when you cut the old thread. Tie a knot a few inches in from

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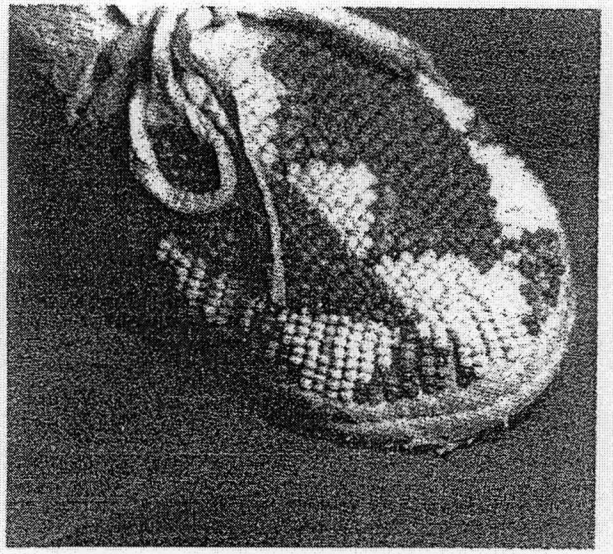
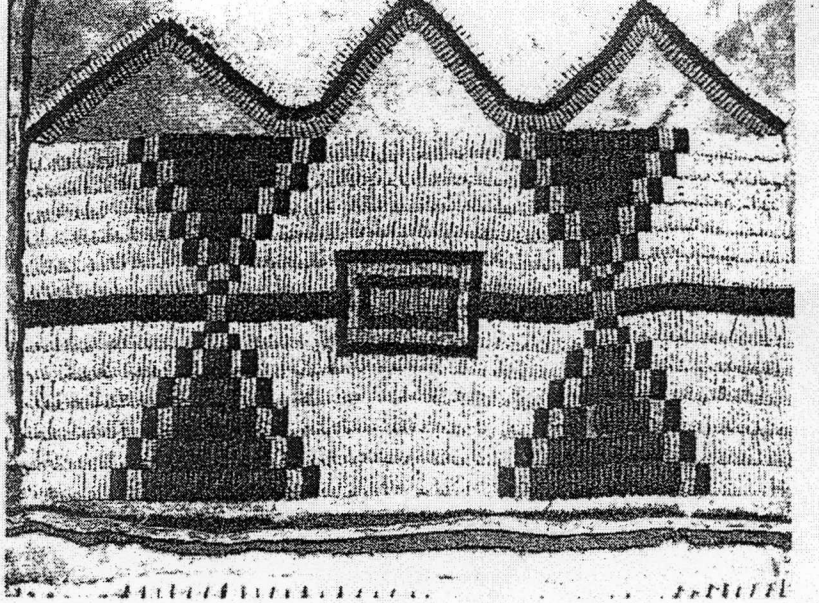




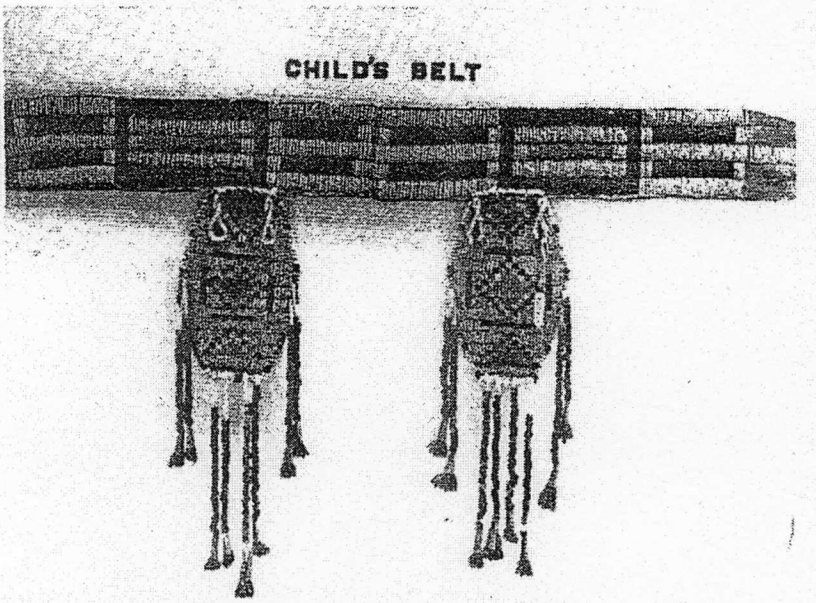
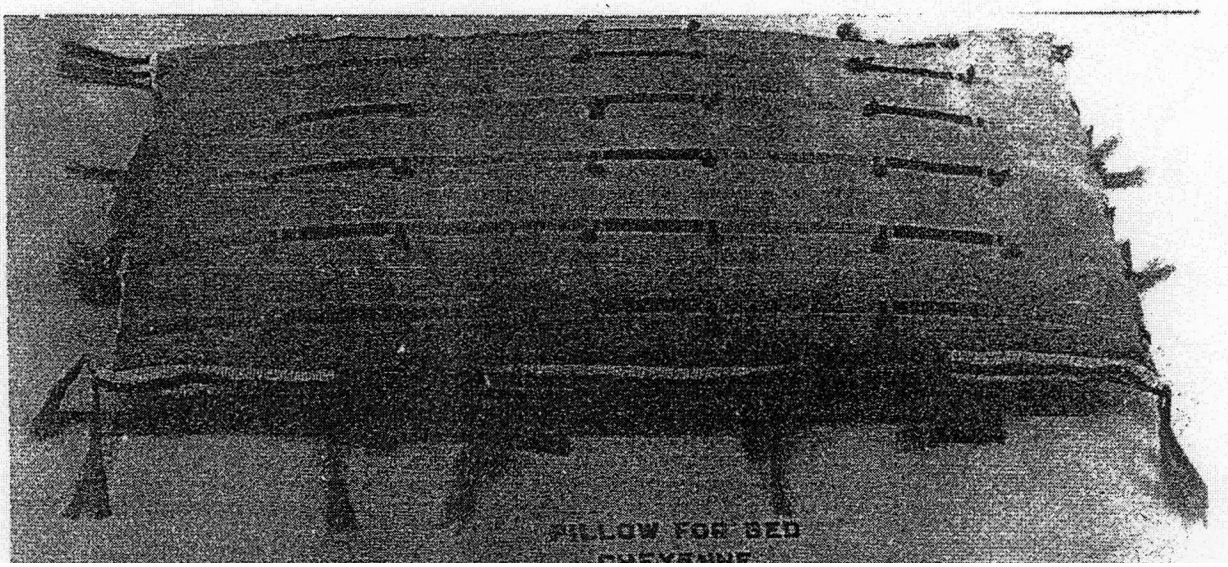



PHOTO 7(top,left) - Sioux baby moccasin toe. Photo by Peter Bugelski.

PHOTO 8(top right) - Close-up of a Cheyenne beaded pipe bag. Photo by Joe Kazumura.

PHOTO 9(left) - Crow child's belt. Chicago Field Museum. Photo by Joe Kazumura.

PHOTO 10(below) - Cheyenne pillow. Chicago Field Museum. Photo by Joe Kazumura.



the end of your new thread, and commence beading as when you started the work. After you have beaded half a dozen rows, to back and tie the dangling ends of the old and new threads together in a square knot.

Extensive sorting of beads is unnecessary. Of all methods of beadwork, lazy stitch is the most tolerant of irregular beads. In spite of this tolerance, it is still necessary to discard grossly deformed beads.

Special soft thimbles for your thumb and second finger will help in both pulling and pushing the needle. You can custom make them from leather, using your finger as a pattern, or buy rubber finger protectors (the kind secretaries wear), from an office supply store.(e.g.Parr size 13) They may seem cumbersome at first, but they sure save wear and tear on your finger tips.

For particularly tough leathers, a needle nose pliers is useful for pulling your needle through. I prefer a six inch straight hemostat, because they are light weight and lock closed. They can be purchased at surgical supply houses.

REFERENCES AND FOOTNOTES


1 - Lyford, Carrie A. Quill and Beadwork of the Western Sioux. U.S. Department of the Interior, Bureau of Indian Affairs, 1940.

2 - Miller, Preston. A Manual of Beading Techniques. Published by the author, 1971.

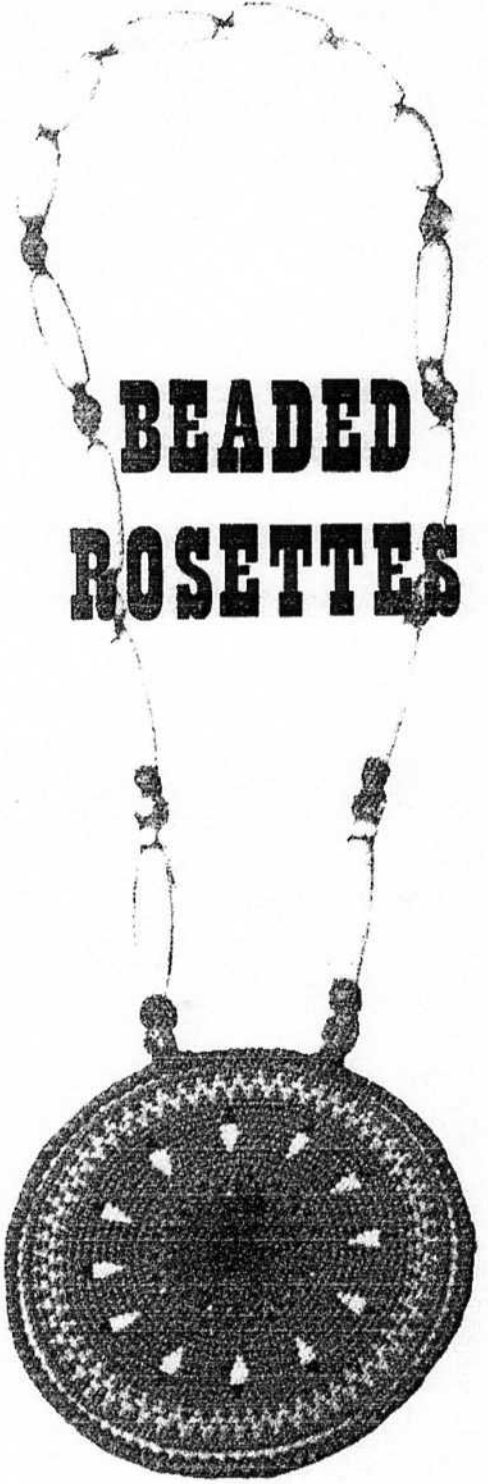
3 - Ward, John. "Modern Crow Men's Dance Outfit,Part 2," American Indian Crafts & Culture,Vol. 4,No.4, 1970.

4 - Sturart, Tyrone. "Cheyenne Moccasins,Parts 1 & 2," American Indian Crafts & Culture,Vol. 5,No.8 & 9, 1971.

5 - Nymo is a trade name of Belding Corticelli for their multifilament nylon thread.

6 - Conn,Richard. "Cheyenne Style Beadwork," American Indian Hobbyist, Vol.7,No.2, 1961.

7 - Hunt, W. Ben. The Golden Book of Indian Crafts and Lore. Simon & Schuster, 1954,p.67.



# BEADED ROSETTES

by Sam Wall

Illustrated by Bob Ellis

A necessary article of Indian clothing is the beaded rosette. Rosettes come in a variety of colors, designs and sizes. Bustles, headbands, armbands, otter draggers, necklaces and even animal harnesses are decorated with them.

Beads of all sizes and types are used; 16/0, 13/0, 11/0; cut or uncut; spaque or translucent. The type and size depend upon the usage, size of the rosette, and the period of the clothing. You would not use a 13/0 cut in an old time Sioux outfit, for example. My own personal preferences are the 11/0 and 12/0 translucent beads, for rosettes of two inches in diameter or larger. You might prefer 13/0 cuts, or 16/0's.

CONSTRUCTION

Regardless of style, size or bead types, the construction remains the same Rosettes are sewn onto a flexible backing of one sort or another.

There are five necessary ingredients; needles, thread, backing, beads and embroidery hoops. If a vegetable fiber thread is used; such as cotton or linen, beeswax sould be used to coat the thread

Select your design. Decide the size of rosette. Draw the design, full size, in full color, on a sheet of writing paper (Ill.1). You are now ready to start the actual beeding.

Select the backing material you prefer. Several types are available and satisfactory; felt, deerskin, canvas. Regardless of the material, it should be white in color.

Place the backing (canvas, felt,deerskin) in a pair of embroidery hoops. These come in several styles and sizes. I perfer the round wooden hoops of about 6 inches in diameter with a tension screw on the outer hoop to hold the backing securely while being beaded. Metal hoops tend to leave rust marks on the white backing, while the spring-tension types do not hold the backing securely enough.

Needles sould be of the short beading type, with the #11 size being sufficient for all sizes of beads except the 16/0's, in which case #13 should be used.

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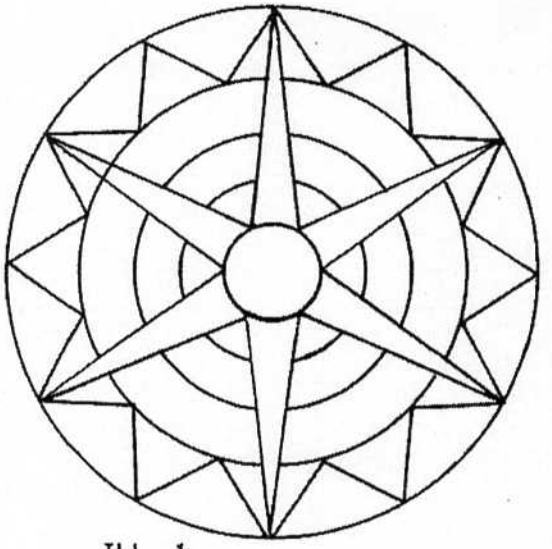

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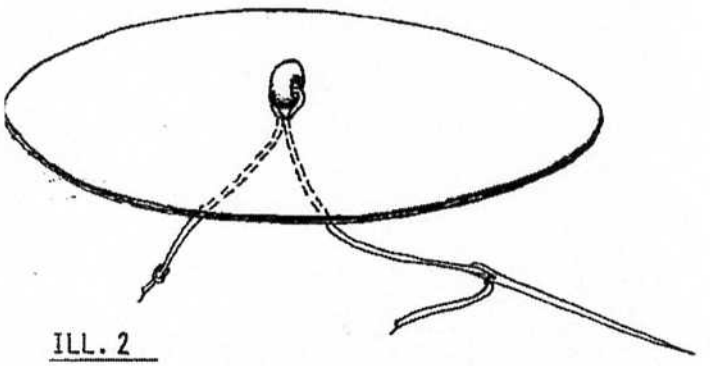
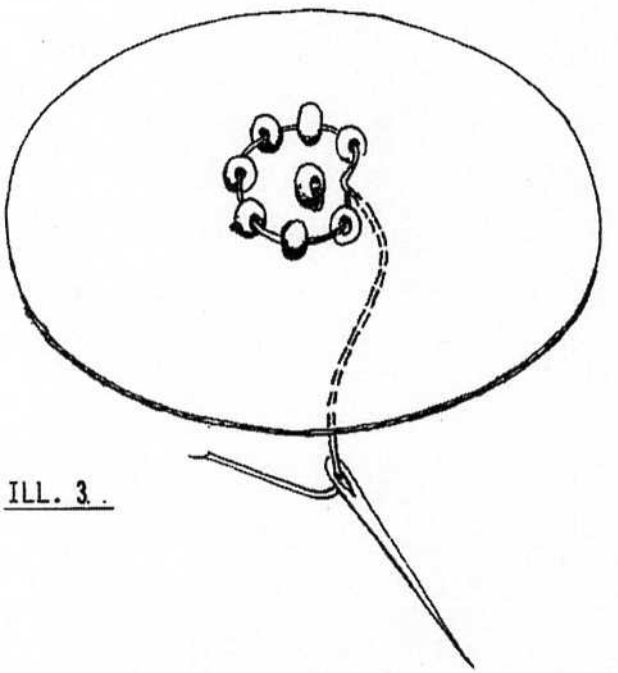


ILL. 2



ILL. 3.

Thread offers three possibilities; aize 50 mercerized cotton, dental floss, or a twisted nylon, such a nyme. DO NOT use the monofiliment nylon. It will stretch too badly and the beads will hang, rather than lie flat.

Select the beads after you have gotten this far. Carefully choosing the width or thickness of the beads being used, a well shaped pattern can be developed.

1 Place the drawing design in the center of the white backing. Thread the needle, tie a large knot in one end, and draw the needle up from the bottom through the exact center of the design.

2 Thread a single bead and return the needle through the same hole (I11.2). Pull the thread taut so the bead stands on edge.

3 Run the thread up through the backing at a distance of 1/2 the width of a bead.

4 Thread the needle through 7 beads. Hold the beads in circle around the center bead with a finger while inserting the needle into the backing where it originally came out (I11.3).

5 Halfway across the circle formed by the seven beads, run the needle through the backing between the center bead and the circle formed. Cross the thread through the beads, and go back through the abcking exactly at the outer edge of the circle of beads (I11.4-4A).

A new row is now started.

6 Run the needle through the backing as in the previous circle.

7 Thread 6 beads, colors according to the pattern. Deep the 6 beads along the inner circle.

8 Keeping the beads tight, run the needle through the backing and bring it back through the backing between the third and fourth beads. Pull the thread tight and run the needle through the last three beads(I11.4-4A).

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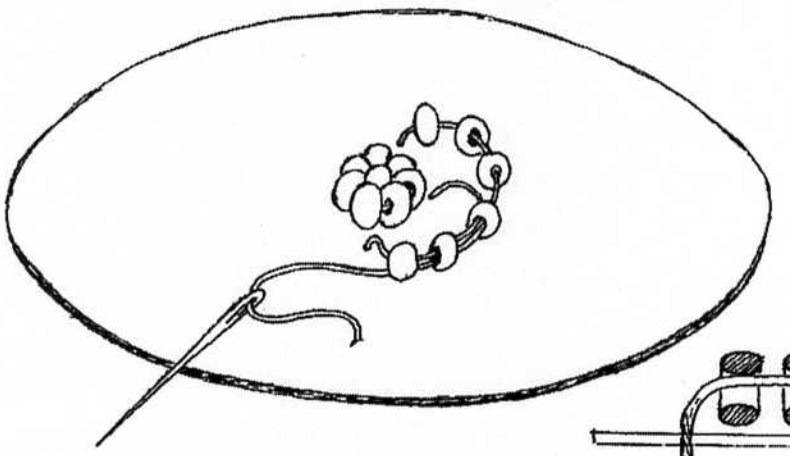

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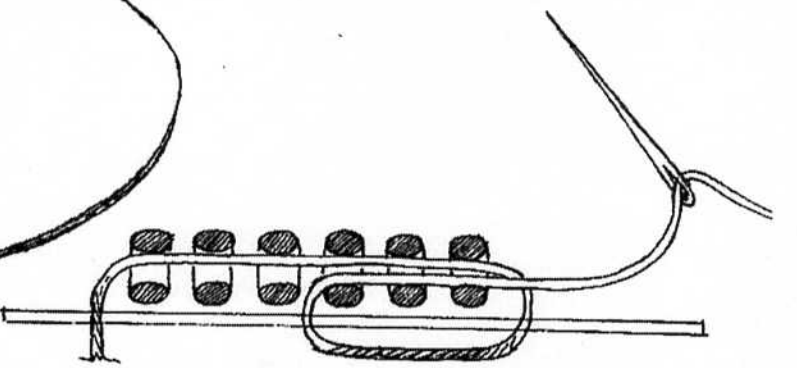


ILL. 4a

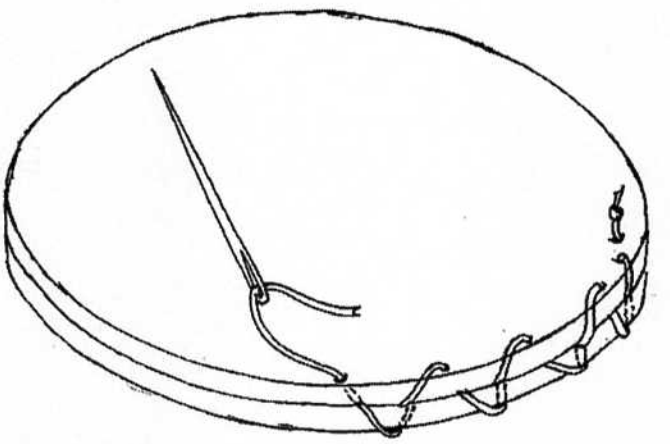
Thread 6 more beads and repeat the previous step.

9 At the end of the circle, start a new circle, repeating this procecure until the whole rosette design is filled. Tear off the excess paper from the perimeter of the design.

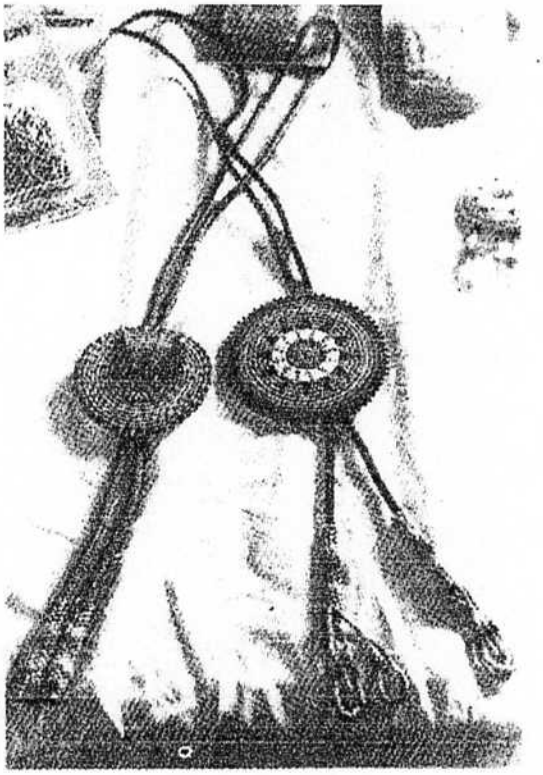
Remove the backing from the hoops. Trim the backing to the outer edge of the outer circle of beads. Cut a circle of stiff, heavy rawhide, the exact size of the rosette.

Cut a canvas circle the exact size of the rosette. Glue the rosette, face up, on the rawhide using white glue. Glue the canvas circle on the other si Allow to dry, and whip stitch the edge together like a baseball, (Ill.5).

The rosette is finished by edge beading. This protects the stitching and the beadwork. The rosette is now ready to use.



ILL. #5



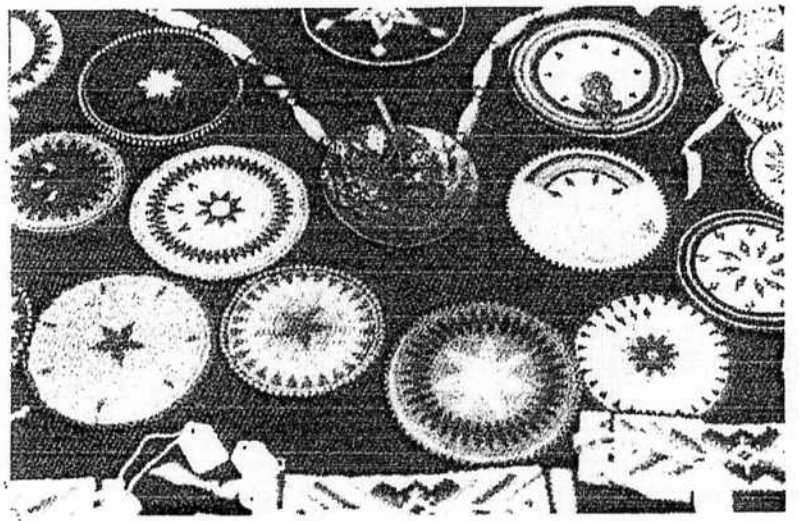


PHOTO:

1. Bottom Row: Translucent beaded Rosette. Courtesy, Indian Land, Utica, Ill.
2. Courtesy, Indian Land, Utica, Il.
3. Edge beaded rosettes. Note rosette at top right-7 feathers in design. This is an appliqued rosette with raised figure. Feathers are appliqued on unbeaded, contrasting background with applique beadwork around the outer edge. Courtesy, Tatanka Sapa Trading Post, Lombard, Ill.
4. Far Right: Appliqued rosette.

*photos* *by*

**Bob Pate**

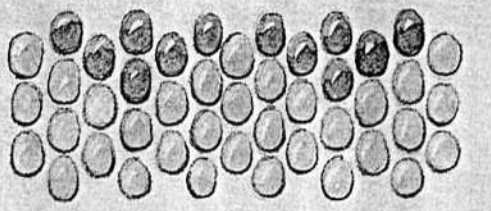
seam, the tighter the leather is pulled. Once the glue has dried, trim off the leather flush with the object. This technique works for covering a cylinder and odd shaped items such as fan handles.

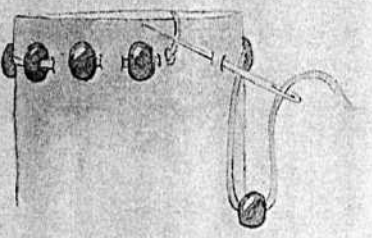
I'll explain this start with a half-diamond design. Thread a needle with a length of thread that is comfortable to work with. This should be a single thread with a knot tied in the end. Pull the needle through a point on the buckskin at the top end of the object (I usually start at the seam). The first round of beads will be stitched to the buckskin. Because of the way the beads stack with even-count gourd stitch, each round consists of half the number of beads that will fit around the object, and for the first round they need to be sewn far enough apart that another bead can fit between each pair of beads.

The beads in the first (top) round are the color of the half-diamonds (dark). In this example, the first round consists of nine beads (the total number needed to encircle the object is eighteen). Space the beads as evenly as possible around the object. When the final bead of this round is in place, pass the needle through the first bead again to end the round.

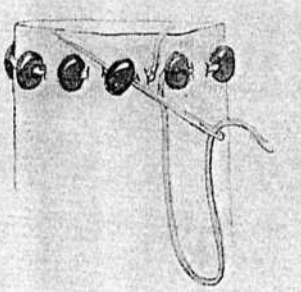
For the second round, the pattern is two dark beads followed by one background (light) bead. Pick up a bead and pass through the next bead from the first round. Work this pattern of two dark beads and one light bead, passing through the next bead from the first round, to add nine beads total. When you reach the end of the

## STARTING EVEN-COUNT GOURD STITCH, METHOD ONE

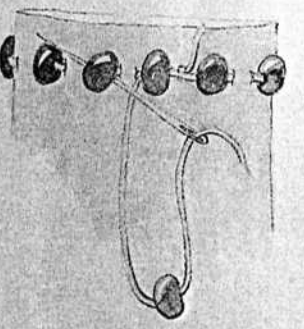




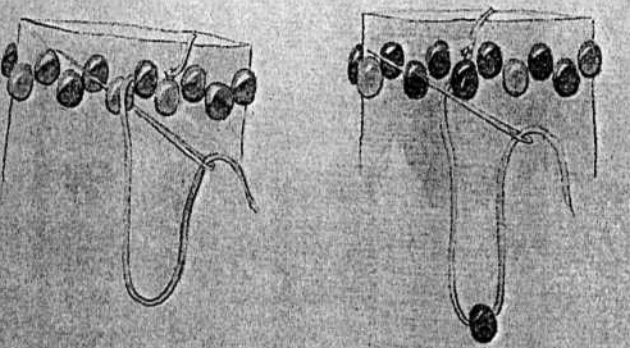
**Space the beads evenly around, leaving room for one bead between each pair of beads. For the half-diamond design, the first row is made with red beads.**



**Pass the needle back through the first bead to end the round.**

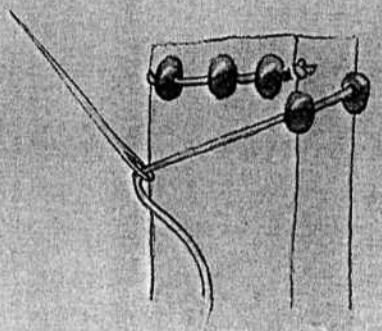


**Begin the second round by picking up a bead and passing the needle through the next bead in the first row. Proceed all the way around.**

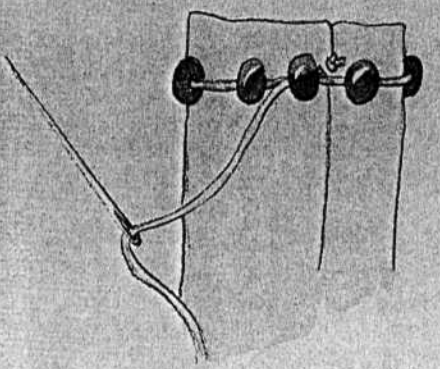


**The color sequence for the second round, according to the half-diamond illustration at the top of this page, is red-red-blue.**

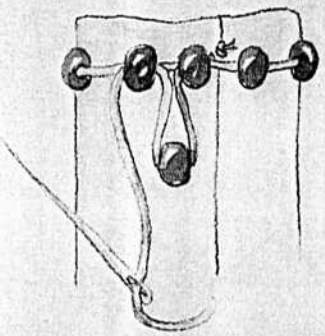
## Starting Even-Count Gourd Stitch, Method Two



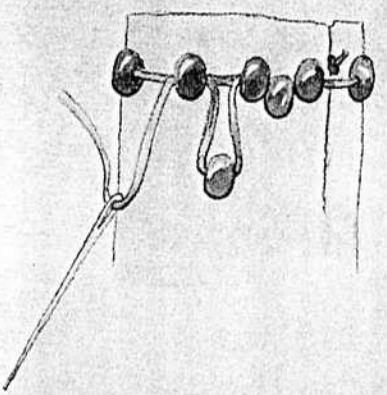
String half the number of beads needed to fill the diameter of the object. Wrap the thread around the object, and space the beads out evenly.



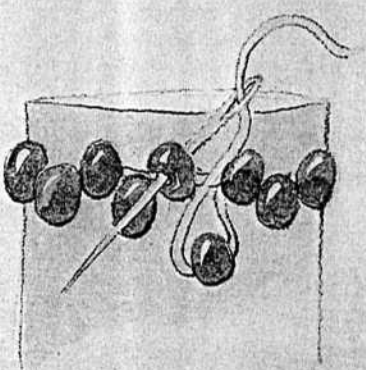
When you reach the end of the round, pass back through the first bead added in that round.



To begin the second round, pick up a bead and pass through the next bead.



Continue picking up a bead and passing through the next bead all the way around the object.



For the third round, pick up a bead, skip a bead, and pass through the next low bead.

round, pass back through the first bead added in that round.

For the next round, the color sequence is one dark bead followed by two light beads. As you work the third round, it will be obvious which beads to pass through. The beads added in the second round will hang down a little lower than the beads in the first round. Pick up a bead and pass through the next low bead. Repeat this process to the end of the round. Now do three or four rounds of background beads. Remember to end each round by going back through the first bead added in that round.

### Starting even-count gourd stitch, method two

The second method is also worked over an object covered with soft leather. Start as for method one, pulling a threaded needle through the buckskin at the top end of the object at the seam. For the half-diamond design, string a number of dark beads to go completely around the object, adding or subtracting to end up with an even number that is divisible by six.

Take half the beads off the thread. Pass the needle through the first bead again. Pull the thread tight and space the beads evenly around the object. The color sequence and process for subsequent rounds is the same as for the first method. As with method one, finish each round by passing back through the first bead added in that round. It is critical that you do this; if you do not end each round by passing back

through the first bead added, the design elements will be skewed and the finished product will look sloppy.

## ▪ Three-drop gourd stitch

As Native people honed their skills in gourd-stitch beadwork, they developed a new style. Three-drop gourd stitch is a uniquely Native technique, and while at first glance it may look like even-count gourd stitch, close examination reveals that the beads stack differently. As the name indicates, the number of beads you begin with must be a multiple of three; in order to maintain symmetry of design, that number must also be even, or a multiple of six. Each round of beads added to the work consists of one-third the number needed to encircle the object. ***Note:*** If you are working with a design that does not call for symmetry, such as stripes or spirals, you may work with an odd multiple of three beads.

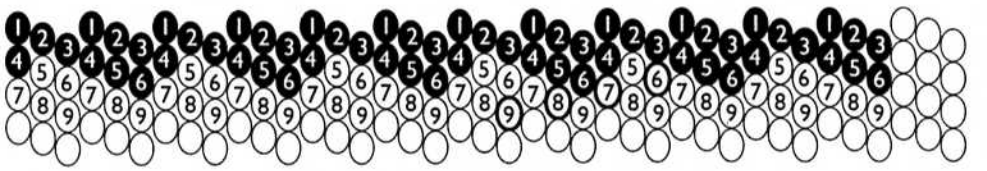
### Starting three-drop gourd stitch

I'll explain this start using the modified half-diamond design (see below). String the number of dark beads needed to fit around your object and add or subtract until the number is divisible by six. Take off one third of the beads and space the remaining beads evenly around the object. Pass through all the beads twice more, exiting from the first bead strung. These beads comprise rounds 1 and 2.

To form the third round, pick up a dark bead, skip a bead, and pass through the next bead. Repeat this process of picking up one dark bead, skipping one bead, and passing through the next bead all the way around the object. As you add each bead, be sure it stays below the beads of the round above. Finish the round by passing back through the first bead added. The beads should now form a slanted three-bead pattern.

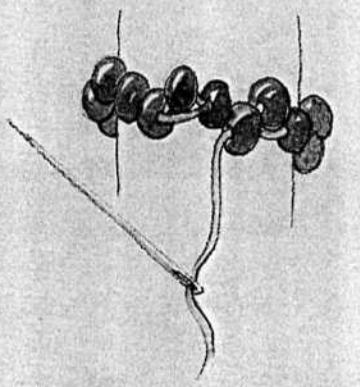
To add subsequent rounds, string one bead and pass through the next lowest bead from the round above. Remember to end each round by passing back through the first bead added in that round.

The illustration below shows the color sequence to follow to get the modified half-diamond design. Note that to get this pattern, which has three beads stacked vertically, you must bead nine rounds. Because each round ends by passing back through the first bead added, the starting point for the subsequent round will move to the left; the starting bead for each round is outlined in bold on the chart.

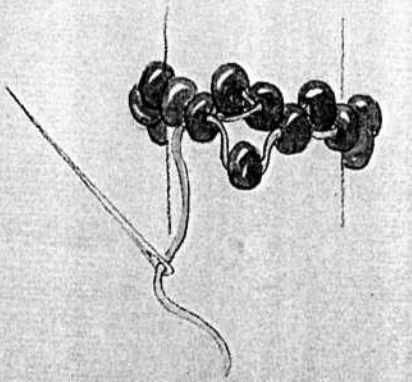


Beading sequence for the modified half-diamond design in three-drop gourd stitch. The starting bead for each round is outlined in bold.





After completing round 3, the beads will form a slanted three-bead pattern.



To add a round, string a bead and pass through the next lowest bead.

## ▪ Shaping the beadwork

Gourd-stitch beadwork can be used to cover objects of various shapes. One of the most common items beaded with this technique is a fan handle that has slope built into it, i.e., it is wider at some points than others. Increasing or decreasing gourd-stitch work can be a very time consuming and somewhat difficult process. Knowing when to increase or decrease seems to be the thing that plagues most beadworkers. I recommend that you increase or decrease at the sides of the object—most people look at fronts and backs, not sides.

### Decreasing in gourd stitch

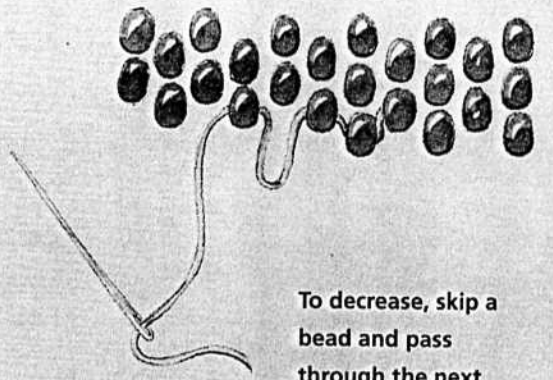
As your work progresses, watch very closely the edge of the previous round of beads. When the beadwork develops a slight ripple, it is time to work one less bead in the next round. When you decrease, you take beads out of the round, and therefore out of the scheme of the pattern. In order to keep designs symmetrical, beads must be dropped from the work in the background color. When a bead is taken out of the work, the diagonal that the bead would normally fall into is ended.

To decrease, simply go through the next bead of the work as you normally would, but do so without picking up a bead. On the next round, skip the place where the bead normally would have gone and place a bead through the next bead that is hanging down in the round. Look very carefully at the drawings below.

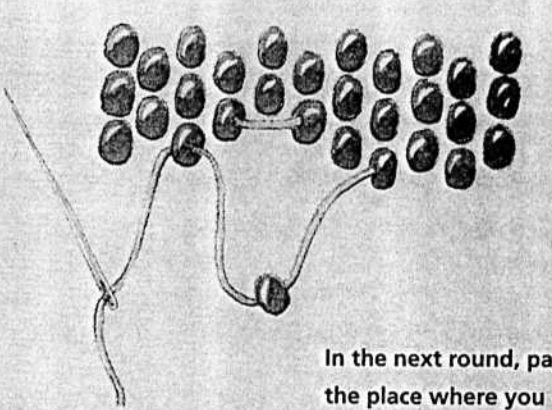
### Increasing in gourd stitch

The space between each pair of beads should be equal to one bead. When the spacing begins to open up, it is time to add a bead to the round. As with decreasing, add beads in the background color to main-

## DECREASING IN GOURD STITCH



**To decrease, skip a bead and pass through the next bead without first picking up a bead.**



**In the next round, pass by the place where you skipped a bead and go through the next low bead.**

tain symmetry. When increasing, you are effectively adding an additional diagonal to the work. Once again, add beads only at the sides of the project. To increase, pick up two beads instead of one and proceed as usual. On the next round, sew into each of these two beads to create a new diagonal.

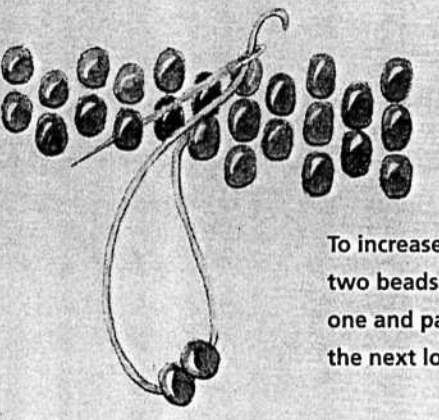
**Perfecting decreasing and increasing**

Decreasing or increasing creates a small triangle-shaped hole in the beadwork. This hole is caused by the interruption of the beadwork diagonal. To help hide the hole, use a felt tip marker to mark the leather the same color as the background. Remember also that the most effective place to decrease or increase is at the sides of the object and in the background color. Once the increase or decrease has been done and you are back to an area of the project that has no slope, it is important to drop or add enough beads so that you are back to a number that is divisible by six. In this way, you will maintain symmetry in your design.

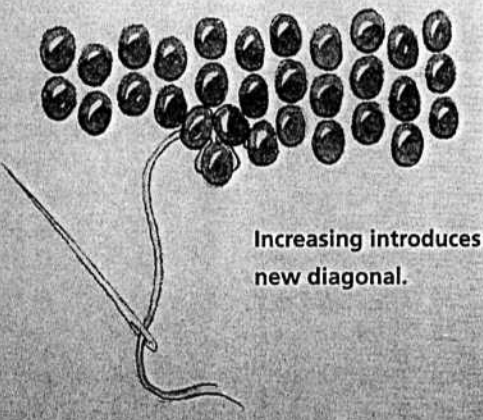
## ▪ Gourd-stitch designs

When working with gourd-stitch beadwork designs, you must watch the diagonal as it develops. The diagonal is the key to reading designs and counting rounds. Diagonals will become prominent after the third round of beads is put into place. Gourd-stitch designs include a wide range of colors and symbols.

## Increasing in Gourd Stitch



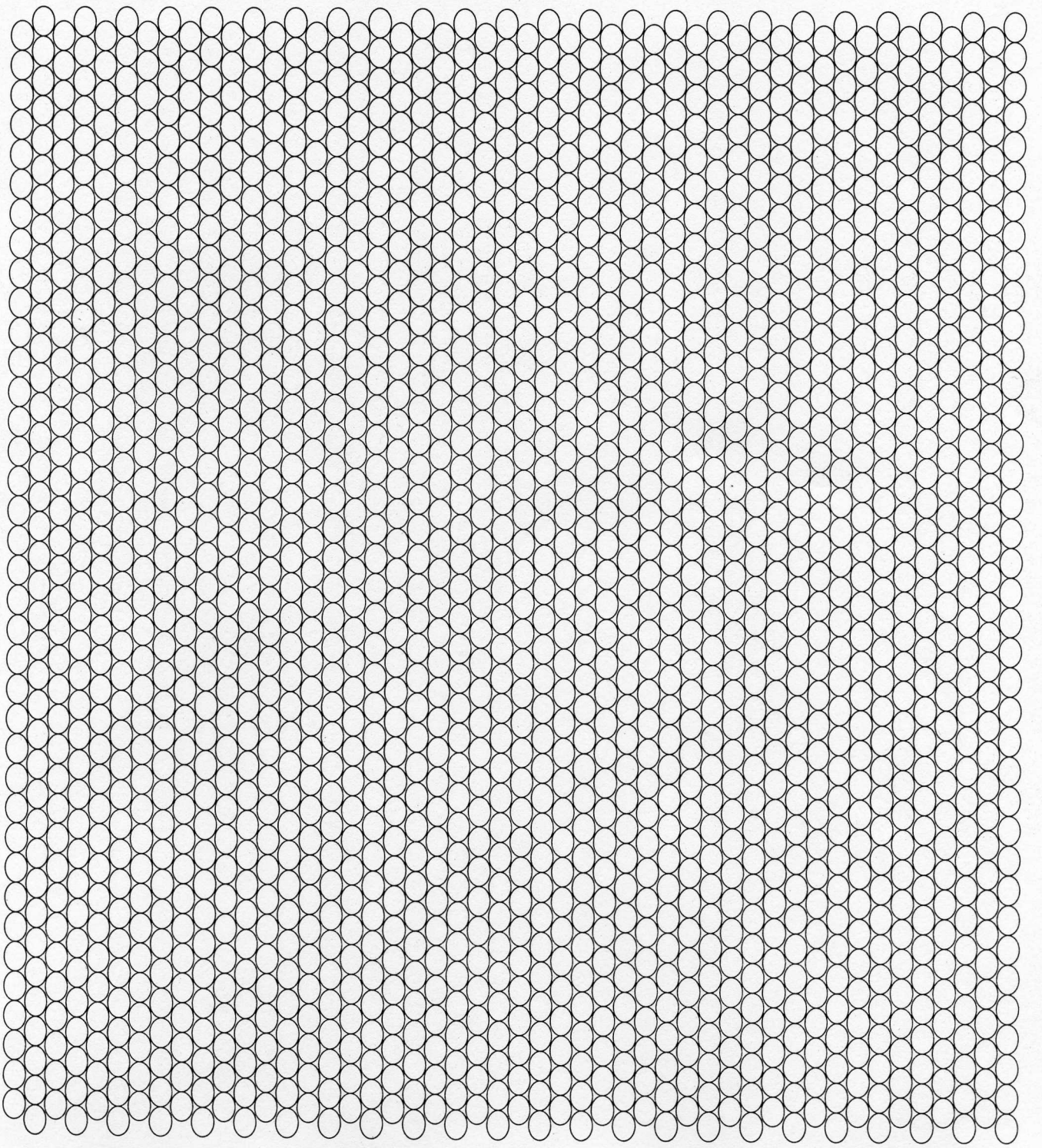
To increase, pick up two beads instead of one and pass through the next low bead.

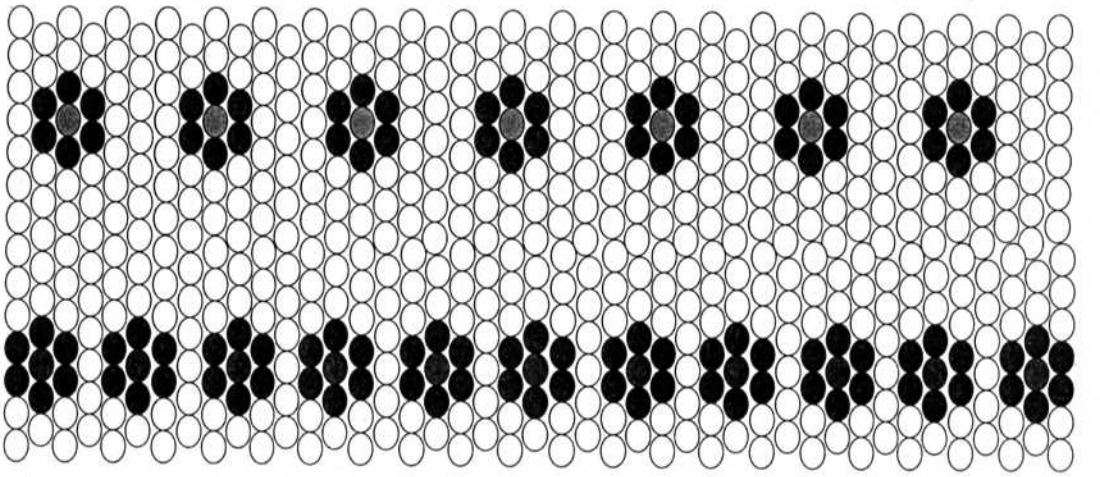


Increasing introduces a new diagonal.

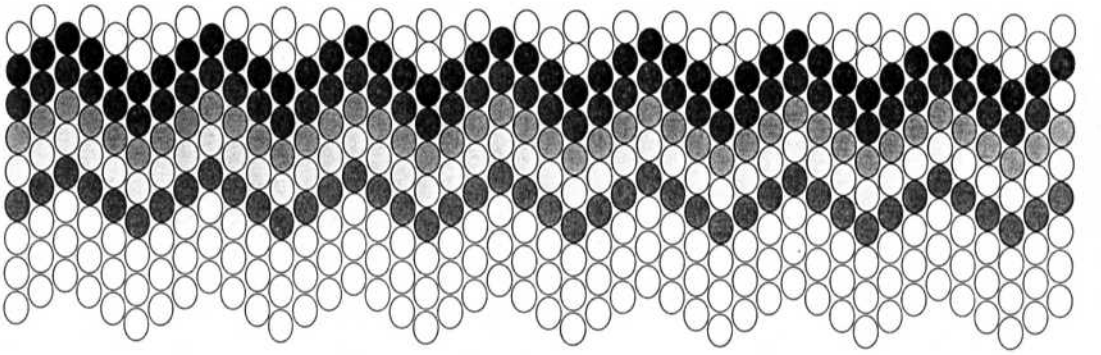
## GOURD STITCH

The way each row of beads is offset by a half-bead from the previous row makes gourd stitch especially appropriate for designs with strong verticals and diagonals.

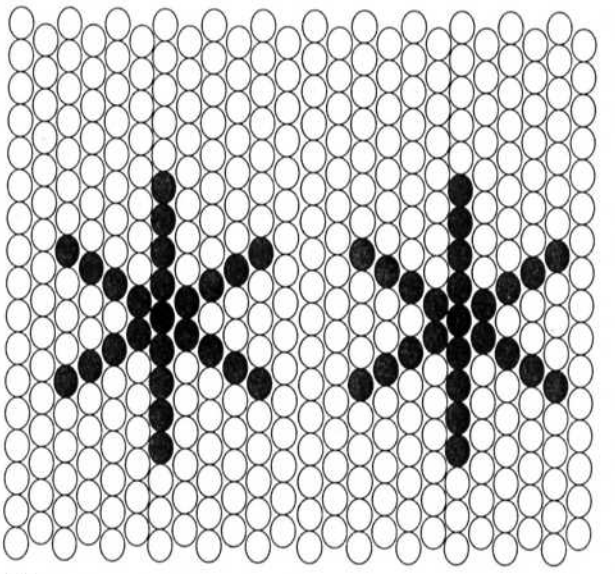




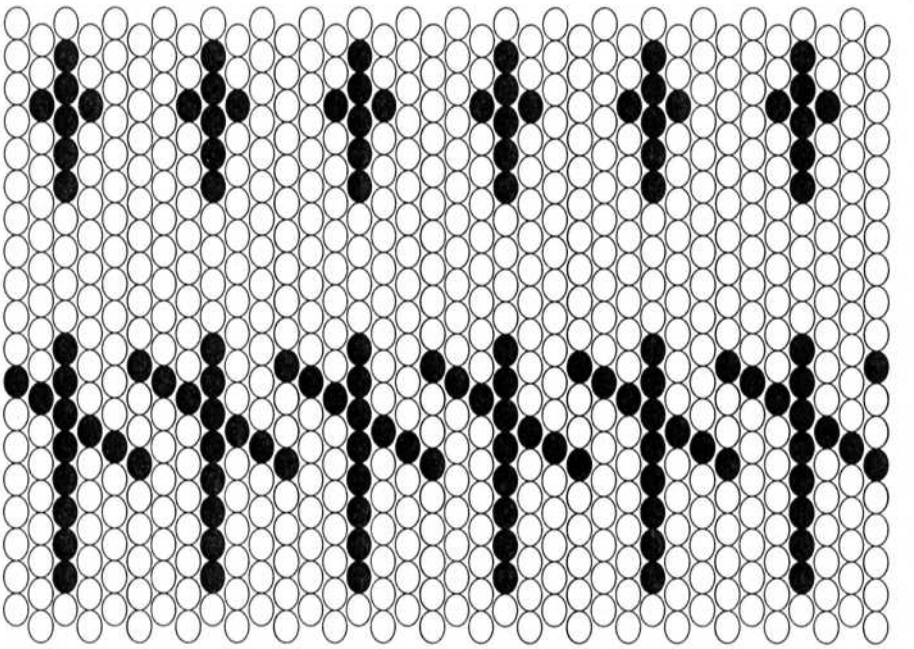
Flowers



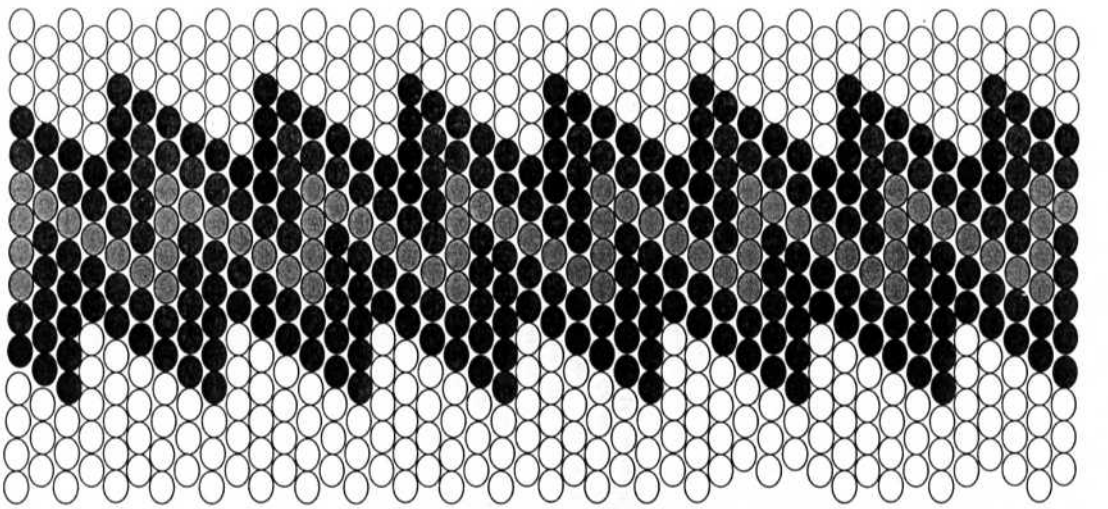
Zigzag



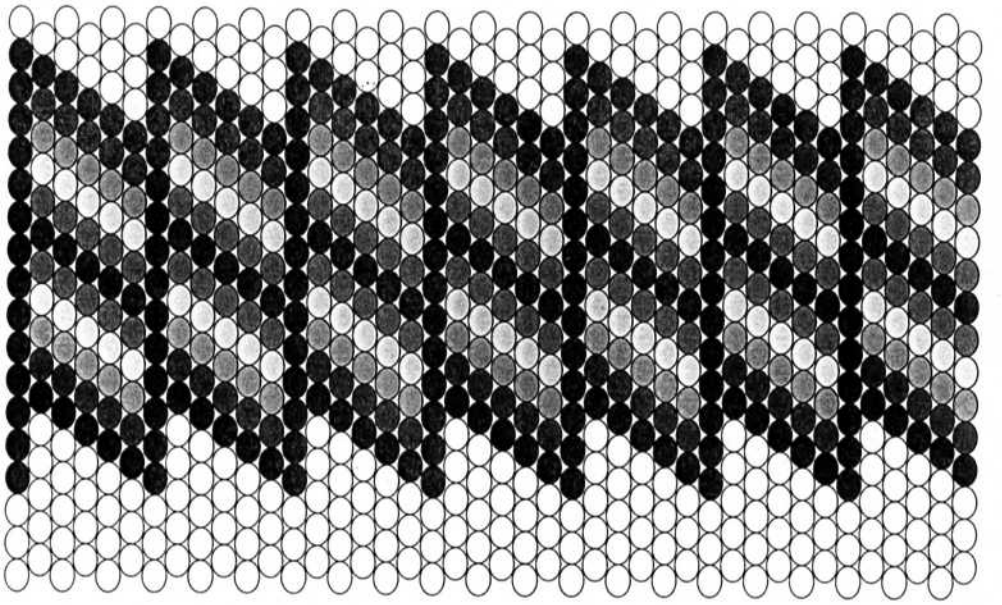
Stars



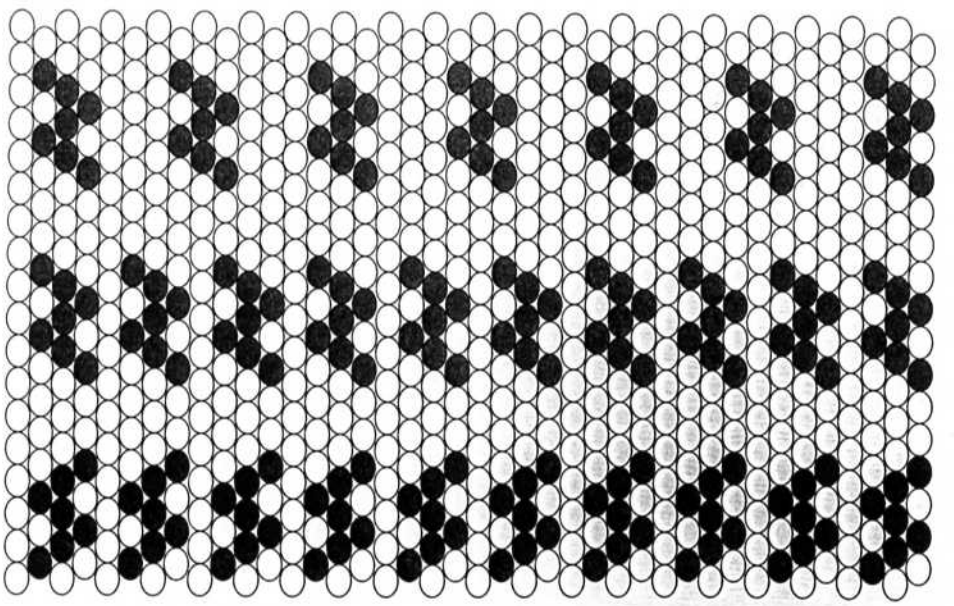
Crosses



Saw Tooth



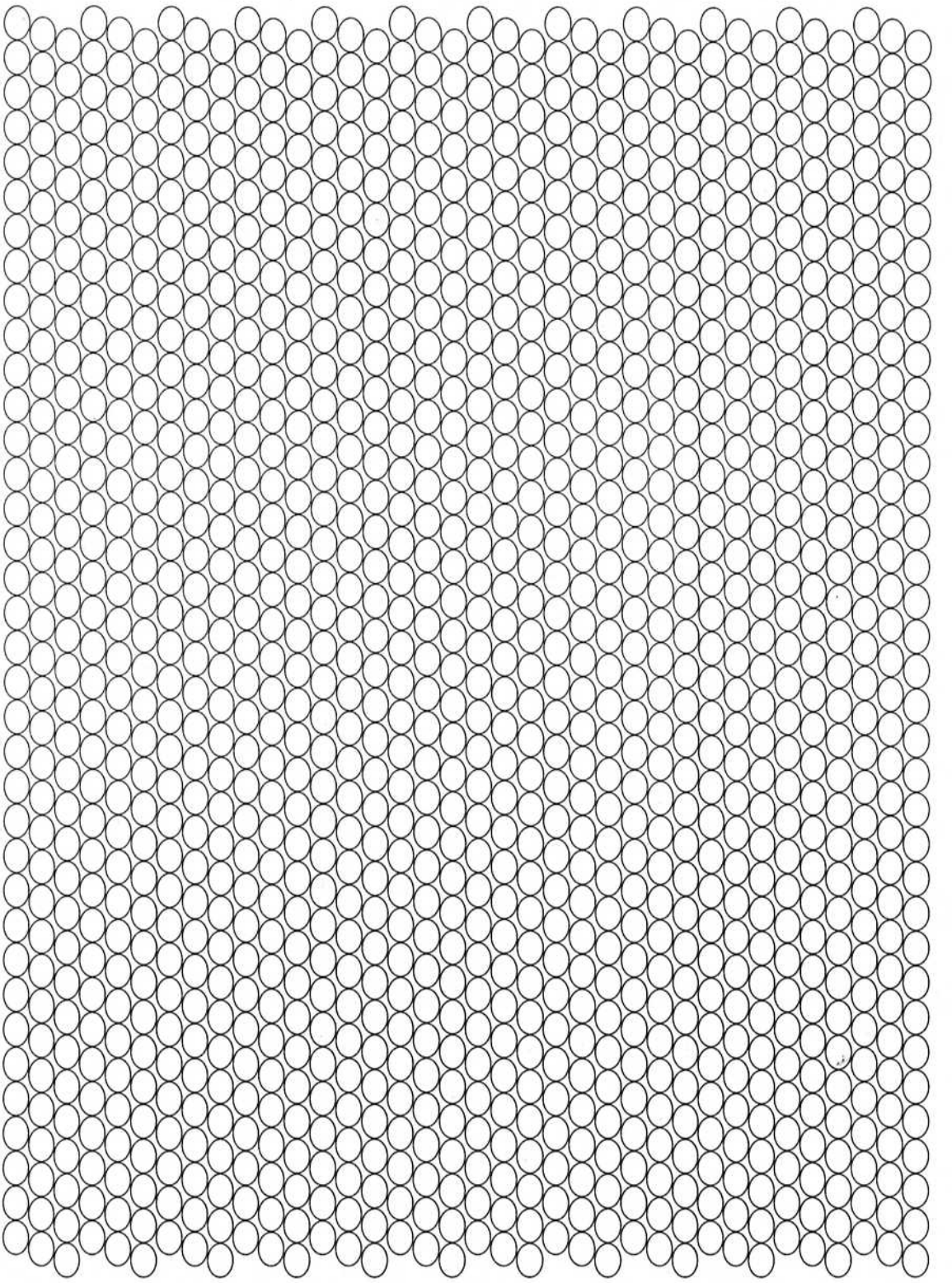
Saw Tooth with Panels

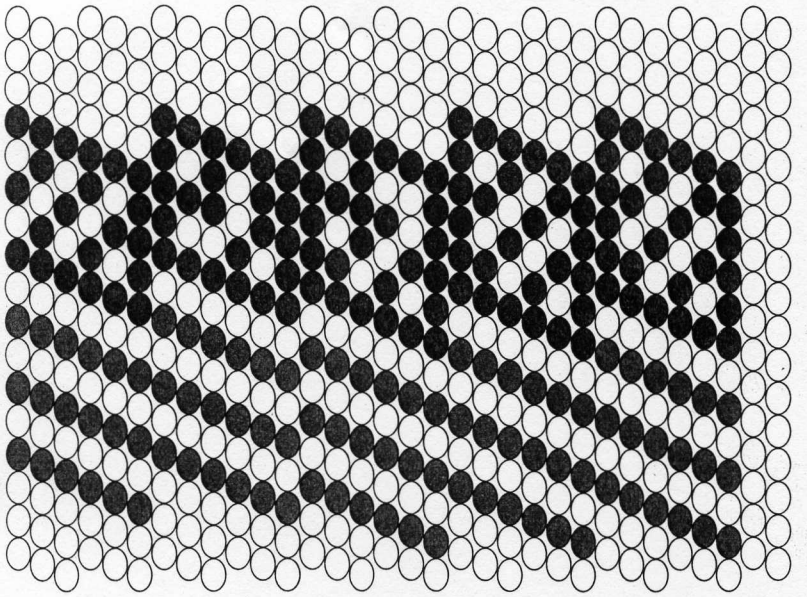


Lightning

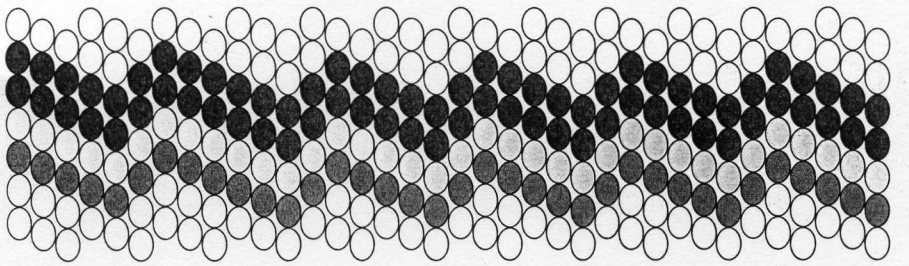
## Three-drop Gourd Stitch

This technique is unique to Native American beadwork. Design units are six beads wide. It has a stronger diagonal slant than regular gourd stitch.

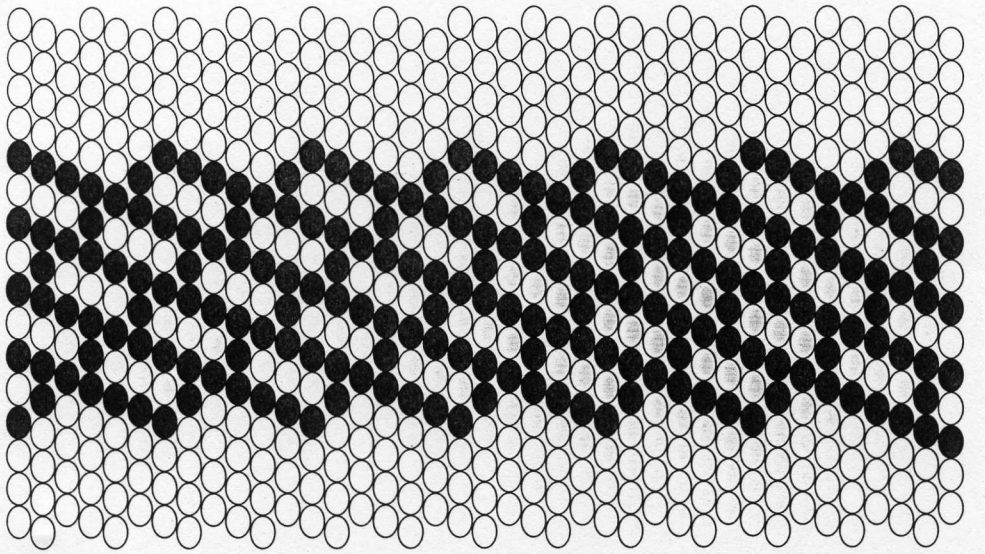




American Flags



Zigzag



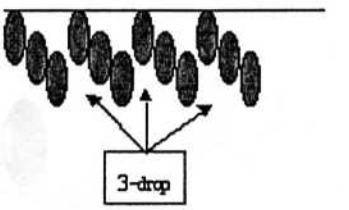
Spider Web

Gourd Stitch Beadwork

Getting Started:

- Cover the object to be beaded with leather or some other covering.
- Push the threaded needle through the leather at the top or bottom, or start in the middle of the object.
- String beads onto the thread and wind the beads completely around the object.
- Count these beads and either add or subtract beads to make the total divisible by 6.
- Divide the total by 3 and take that number of beads off.

For example: 35 beads might completely encircle the object. Add one bead to make the total divisible by 6, divide that number by 3, which yields 12. Remove 12 beads.




- Wind the remaining beads clockwise for right handers and counterclockwise for left handers.
- Put the needle through the first bead, bead 1.
- String on 1 bead. Skip bead 2 and go through bead 3. Continue this process until you have gone completely around the object.
- We you come to put the last bead of that row on, you must go through 2 beads to complete the row.

This establishes the 'three drop' pattern, which you will sometime hear this technique referred to as.

TIPS TO REMEMBER:

Always keep your thread waxed with beeswax. It will protect the thread from fraying and help prevent, or at least reduce, knotting.

Always try to use a needle smaller than the bead you are using. If you are beading in 12/o's, use 13/o needles. If you are beading in 18/o's though, I guess your out of luck.

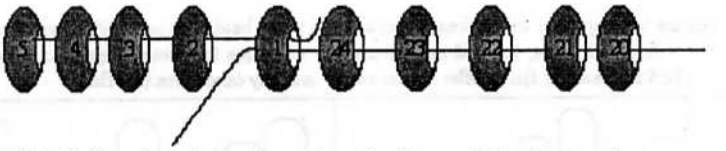



FIGURE 1: After determining the number of beads around the object, make sure it is divisible by 6 and take off one third of the beads. Wrap the beads clockwise around the object and go through the first bead in the direction of the wrap. This example shows an object with a 36 bead circumference (36 minus 1/3 = 24)

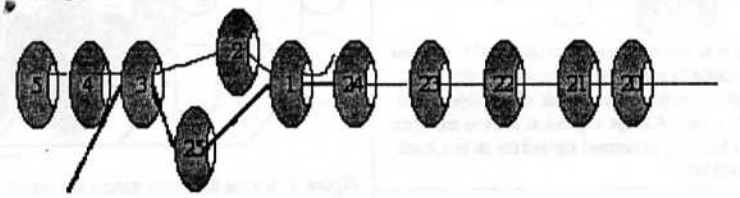



FIGURE 2: The next step is to pick up a bead, skip one bead and go through the next bead and pull the thread tight. This process continues until you have gone all the way around the object.

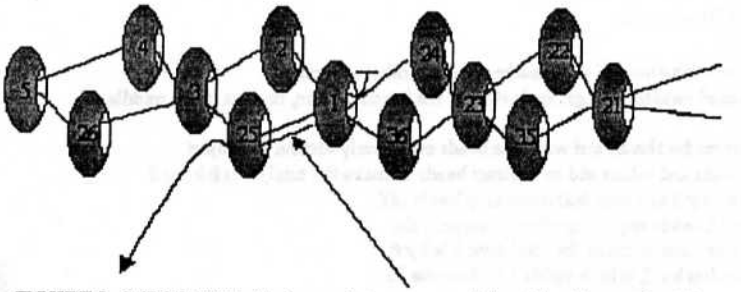


FIGURE 3: *IMPORTANT*: Each complete row around the object is completed by going through two beads.

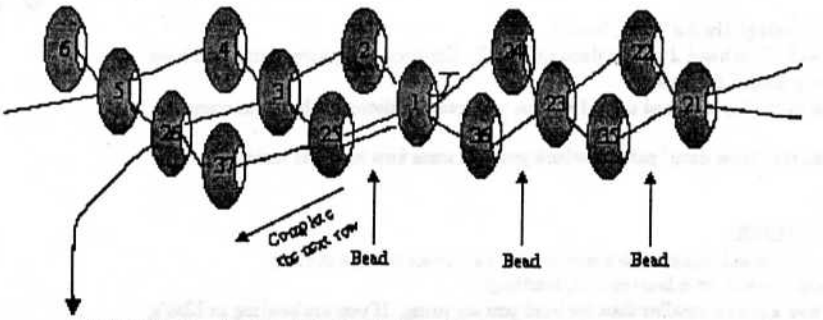



FIGURE 4: Now begin adding beads by going through the lowest bead of each 'three drop'. Don't forget, each row is completed by going through two beads. ENJOY>>

Advanced Tips

The following details the technique for adding beads into a gourd stitch beaded object. Wherever you are beading something that is not completely round with parallel side, you will need to use this technique to prevent large gaps between beads and exposing threads. This is a common method for beading fan handles, gourd rattles and any other item that flares.

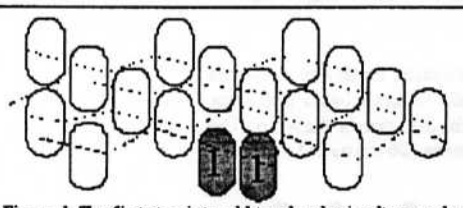



*Figure 1*: The first step is to add two beads simultaneously into one three-drop pocket. Continue beading past this point as you normally would. At a point on the opposite side of the object, add two simultaneous beads again. Always expand in pairs to maintain your designs. Continue beading as normal around the object, back to the first point of expansion.

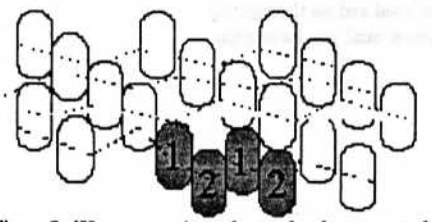



*Figure 2*: When you arrive at the two beads, separate them and pick up a bead, go through the first of the two beads, pick up another bead and go through the second of the two beads. Repeat this at the other point of addition as well. See detail above.

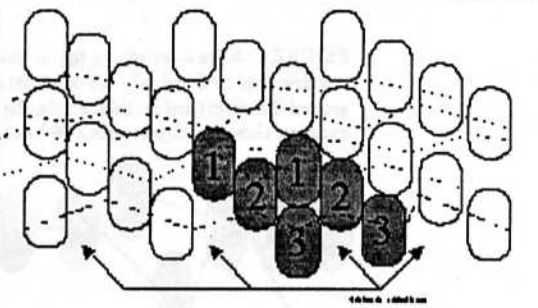



*Figure 3*: On the third row around the object, add a new bead to each of the number 2 beads. Continue again as normally to the other point of expansion and complete this action there as well. This will create a new three-drop row in addition to the original row at both points of expansion. Some movement of the beads might be necessary to make the expansion fit. Don't worry about the angle at first, it will correct itself after a few more rows are added.

*Hints and Tips*:

- Always remember to expand in pairs. If you don't your patterns won't work out.
- Expand in solid colors where possible to mask the appearance of the expansion. The best examples of expansion really make you look for the added rows.
- Sometimes small expansions can be handled by using larger beads. Selecting beads is your friend.
- If you are ending a design and are coming up on an expansion, true to use larger beads to complete the design, then start the expansion.

# DO'S AND DON'TS OF PEYOTE BEADWORK

By: James Barton

Peyote Beadwork or the Gourd stitch is an added extra in most construction of the usual styles of beaded Native American Regaila. However, in the past many people delegate this work to others whom they fell are more skilled in this work. Many people just look at the work and the intricate designs and patterns involved and decide that they can not do it. I tell people that "if you can get past the first row, the rest is easy. All it takes is patience and sometimes lots of it." What people don't realize is that good "hand-done" peyote beadwork is an excellent trade item or money maker. This hand out is designed to aid you in using some tricks of the trade along with helping you develop some of your own.

## MATERIALS NEEDED:

1) **Beads:** Any bead in the seed bead category can be used, but for "fine" work, it's hard to beat size 16/0 or 13/0, preferably cut beads.
2) **Needles:** When working with 13/0 or 16/0 beads, a size 16 needle is a must.
3) **Thread:** The two types of thread used are cotton and nylon. I prefer oo Nymo (non-twist) beading thread.
4) **Bee's Wax:** A must in all types of beadwork. Wax every time around.
5) **Scissors** BARBERS
6) **Needle-nose pliers (thin)**
7) **Leather:** The traditional covering for an object to beaded is leather. A good substantial leather as thin as toughness will allow and glued or sewn to the object to be beaded. When using leather I prefer the rough side out, cut larger than the object glued in place and trimmed. Some craft workers use tape (First Aid tape, masking tape, duck tape). When observing a completed fan handle with tape used as a base the beadwork tends to slip. Mole skin is also a quick substitute. This requires no sewing, just peal the back and wrap around the item. Mole skin gives adequate padding and is most similar to the qualities of leather.
8) **object to bead**
9) **peyote beadwork graph paper (optional)**

## COLORS:

As in all good Native American beadwork, colors are of extreme importance. This author has his own theory of colors based upon careful observations of numerous beaded articles. I believe most beadworkers become accustomed to using certain combinations of colors together starting with the background color, light blue or white are the most common, or even possibly a green, pink, medium blue, periwinkle or black. I feel that colors are thought of as light, medium and dark, and that contrast is the most important thing in good peyote beadwork. The most often used colors are those of the earth of nature. This is something to think about. For example:

Light colors: white, light blue, light green, light yellow

medium colors: pink, periwinkle, light red, leaf green, orange

dark colors: dark blue, brown, black, dark green, dark red

Accent and contrast seem to be the most prominent factor governing good beadwork. There is a tendency to rainbow on some dance fans, but top quality work usually will show good contrast using a blending of shades and similiar colors.

GETTING STARTED:

1) Decide on the object to bead, and cover it with leather.
2) Thread your needle using double thread method (cut thread about 12 to 20 inches doubled). Keeping your thread waxed well. A couple runs up and down the thread will do fine. Do this every time a circle is made.
3) Knot your thread and pull thread through leather near your widest end and begin stringing on beads to go around and meet. It is best if the number of beads to go around the object is divisible by 2, 3, 6, and 9. It is preferred that it be divisible by 3. In our example there are 48 beads.
4) Remove 1/3 of the total number (16 beads). We now have 32 beads. It would be smart at this point to recount the beads left on the string to ensure there are exactly 32 beads. If the number does not agree recount and add or remove beads to get the right number.
5) Wrap the remaining beads around the object and go **DOWN** through the first bead and pull the thread tight so the beads will be snug around the leather.
6) Count over two beads (bead 2, and 3) and pick one bead up. Go **DOWN** through Bead 3. Make sure that the bead you added is between beads 2 and 3. Bead 2 should be slightly raised.
7) Count over two more beads (bead 4, and 5) and pick up another bead. Go **DOWN** through the Bead 5. Make sure that the bead you added is between bead 4 and 5. You should now see a pattern forming of one low, one middle, one high, one low, one middle, one high.
8) Continue until you have made a complete circle and have added all of the beads you took off to begin with. Finish the row and begin your second time around.
9) Now it is time to start your pattern.
   **SAW TOOTH**: If you want to do a simple saw tooth pattern take your total number of beads and divide by 2 or 3 depending on the total number of beads. Now add one red, one white (one red, two white for the latter) until you have circled the piece once. Continue around again by adding one red, one white, etc. Continue around a third time with the same bead combination. As you start your fourth round add one red all the way around until you have little V's. As you start your fifth time around you can add another color in the center of your V's and continue until all the V's are connected.

POINTS TO REMEMBER:

1) Keep your thread tight.
2) Wax each time you make a complete circle
3) When starting and ending a new thread sew into the leather.
4) Keep in mind good color combinations.
5) If you get frustrated put it down and come back to it later.

GOOD LUCK!! JAMES BARTON

Reference: "Peyote" Beadwork Techniques. Ty Stewart

# LOOM BEADWORK TECHNIQUES

Scott Sutton's Methods Related By Jerry Smith

The goals of good loom beadwork are simple: an even width with no bumps, knots or extra thread showing. The techniques that follow will help you achieve these goals. However, before you decide to do a lot of loomwork of this type, "heddle" loom beading is faster and it would be worth your while to read "Heddle Loom Beading" by John Lotter in the Sept.'73 issue of AICC.

The diagram below should give the reader the basic method by which loom beadwork is done. It is the starting, stopping, working in a new thread, splitting and tapering that create problems. These details have received little if any press in craft information.

THE LOOM
There is no reason to build an elaborate loom. Use ½" shelving pine or other similar wood you have around the house. Do make it long and wide enough to accomodate the biggest piece of beadwork you plan to make. Upright pieces need to be 6" farther apart than your longest piece of work. There are many means by which to space warp threads, but the string of beads in Fig. 1 work the best. Be sure to use several nails on back of uprights, as only one will cause problems in stringing the loom.

BEADS & THREAD
The most frequent size beads used are 10/0, 11/0, 13/0 and 13/0 cut. Choose your bead size based on the intricate nature of your design. Don't use 13/0 because Bill Bamboozle did when 11/0 will do the job. Buy all your beads at one time. If you want to match colors later, dye lots are not always identical.

Cottom thread (white top stitching thread) is the best for warp threads because it does not stretch. Nymo size D for the weft thread is Scott's preference. Some beadworkers prefer flax or a cotton for both, it depends on the results your skills allow you to achieve. Wax all threads with beeswax.

STARTING
Once you have drawn a design on bead graph paper, string the loom. "Snug uniform tension" on the warp threads is the phrase not "tight." Double outside warp threads. Almost always a design will have an odd number of beads. Wax the warp threads top and bottom more than once. As in Fig. 2, place (hair) tape across and under the warp thread in the middle. When doing loom beading always start in the center of the design, work right then come back and work left. In this manner your piece will not be too long or short with a center design off center. String beads on your weft thread as indicated by your graph design leaving a long "tail." After you finish the first half of your work start with this "tail" as your first weft thread. There is no real need to tie your first weft thread to a warp thread. Above all, tie no knots on any outside warp thread as they will show in the final product. Now, push up beads through warp threads and pass needle back through. If needle does not reach through, pull needle & 3"-4" of thread through and then repeat until you have gone through the first bead on the weft thread - now, pull the remaining weft thread through. The first row is the most difficult.

There are advantages to a double weft thread and those for a single weft thread and disadvantages for both. Double fills the bead better but is sometimes more difficult to pass back through; you may break a bead. Single will allow you to work longer without using a new thread, but it is not as strong and doesn't fill the bead.

BEAD SELECTION
When beading, each bead must be selected for its uniformity as odd size beads will make the width of your work uneven. Even with careful selection one row will be just a hair wider than the next, a tug on the weft thread should compress the warp threads to make it even. Also, one color may be larger than your other colors. For example, you may have to pick out all the smallest reds to keep your work from expanding or because the navy blues run small, pick out the largest of those.

NEW THREAD
Fig. 3 indicates how to work in a new thread without tying knots on the outside warp thread and without excess weaving in and out of completed rows chancing a broken bead. The two knots you do tie will be on the back of your finished work.

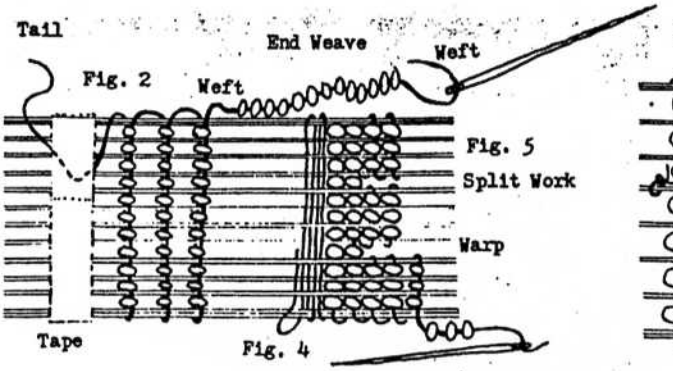
EXTRA BEAD
If your work is 71 beads wide and you have an extra bead between the 11th & 12th beads, do not break it out with a pair of pliers and risk a broken weft thread or a weak spot. Don't be lazy, just unstring the beads! Double weft thread allows you to unstring easily, but single weft is little trouble as you just run the needle back through.

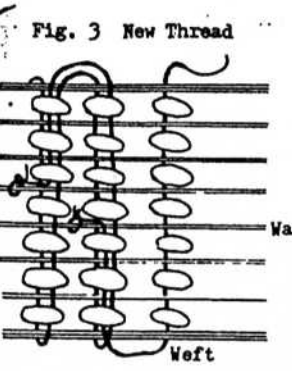
STOPPING
How do you finish your work when the last row is in place? Weave the remaining weft in and out of the warp threads as shown in Fig. 4. ½" or at least a ¼" is needed, so you might want to weave in a new thread about 4-5 rows from the end. Avoid using tape of any type to finish with.

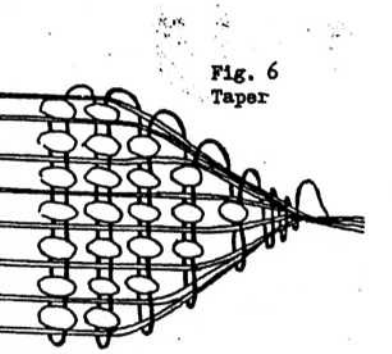
SPLIT & TAPER
Fig. 5 and photo 10 indicates how to split your beadwork into two or more sections; each section is beaded seperately. Use the "new weft thread technique" to start each section.

To taper the end of your beadwork, decrease the beads per row by two beads and pull in the extra warp threads with the weft as in Fig 6 and photo 10.

DESIGNS
The photos included here should give you an idea or two for a man's belt or a design for a feather dancer's matched set. Contrast is extremely important, the design must be evident. Photos 5,9 & 10 represent the spacing of designs on suspenders and belts.



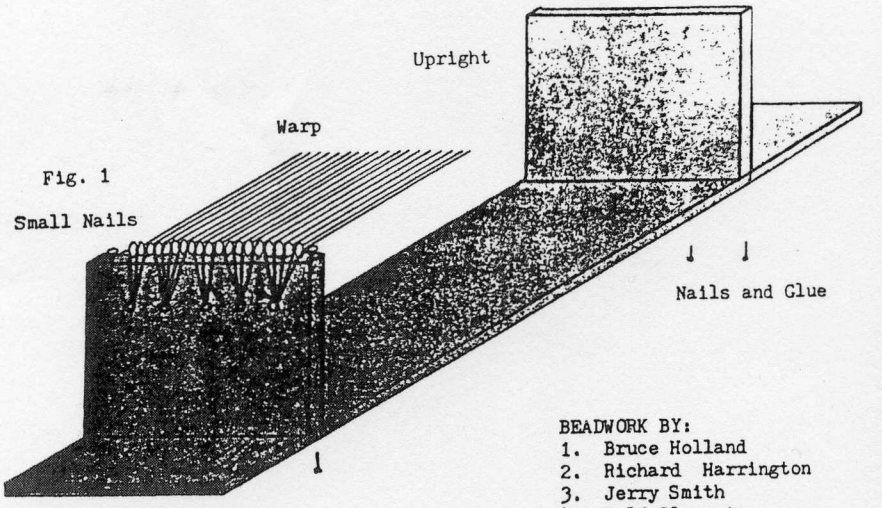
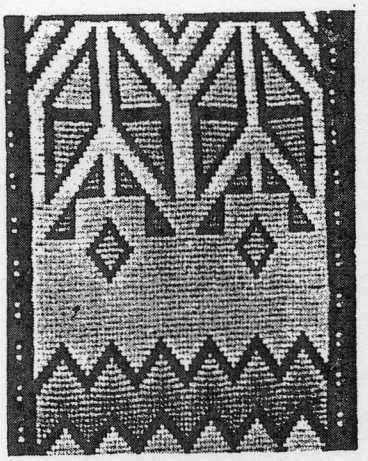


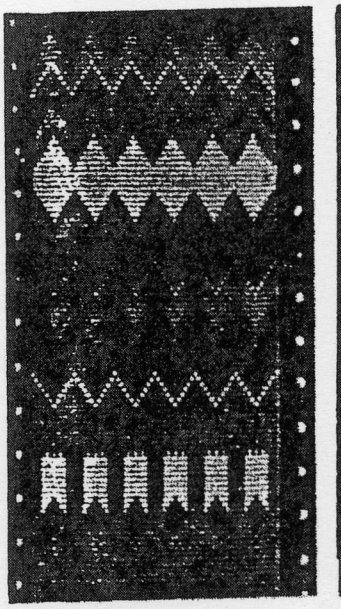

Fig. 1

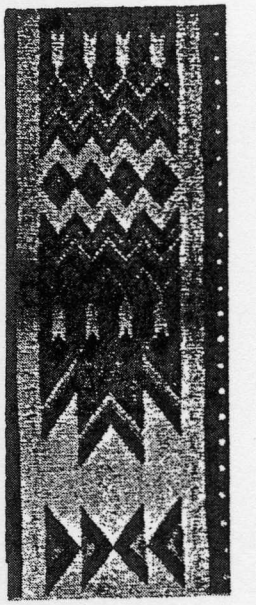
BEADWORK BY:
1. Bruce Holland
2. Richard Harrington
3. Jerry Smith
4. Rolf Clements
5. Scott Sutton
6. Ron Compton
7. Kaysee Tsuji
8. Dick Outten

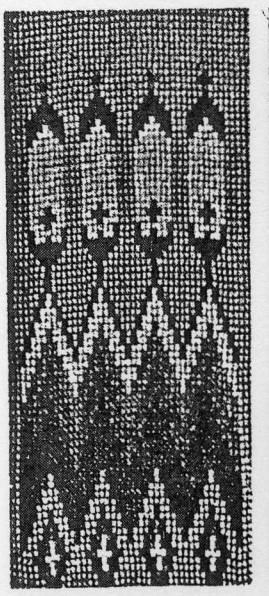




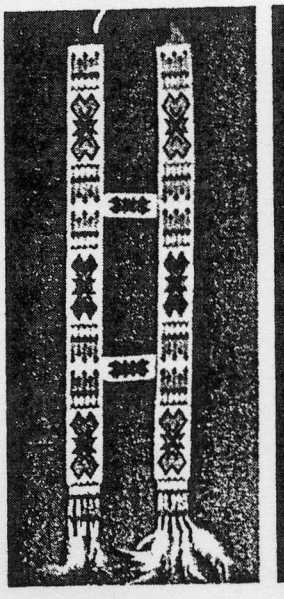


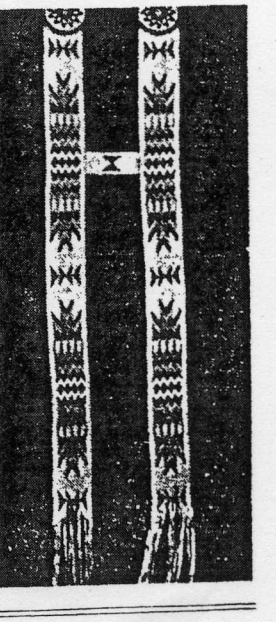




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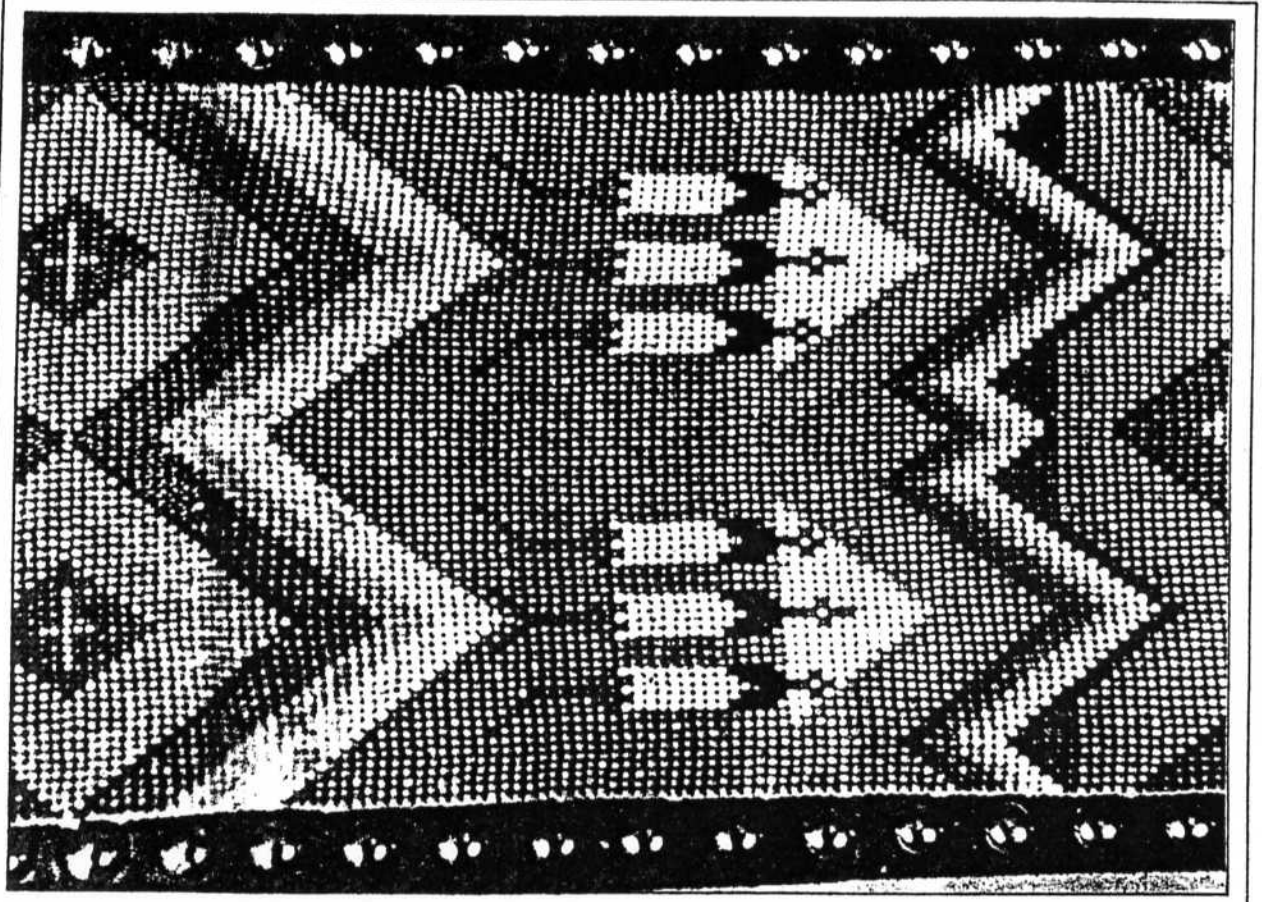


# MOUNTING A BEADED BELT

Jerry W. Smith

Often those who have a great deal of experience in making Indian items fail to realize there are some seemingly routine craft techniques they are familiar with that do not get written about - they are taken for granted and some of these "little" hints keep others from completing or initiating their projects. One of these hints that we have neglected in our goodly number of articles related to the straight dance outfit was recently brought to our attention by an alert reader. The suggestion was to provide a few instructions on how to sew a beaded loom strip onto a piece of stiff leather and also how to attach the chrome spots on the leather. Though these tasks may sound rather simple, their explanation and set of instructions amount to a very worthwhile article. In fact it would be wise to read over these hints before beading the loom strip in the first place.

Ideally the loom strip would be about 2" less than the waist size. With the thickness of the leather, a shirt, bandoliers, belt for the leggings, clout and sashes under the shirt there will be about a 3 to 3 1/2" gap between the ends of the beadwork when the belt is worn. Purchase a piece of strap leather from your local trader or Tandys leather store. It should not be super thick like a weight belt; 3/32 to 1/8" is a good thickness. It should be 1 inch wider than the loom strip and 4 to 6" longer than the waist size. If you're a young man - provide for much growing room. If a border of chrome spots is desired the 5/16"diameter spot is suggested spaced 1/2 inch apart, center to center. Therefore, if your loom strip is 34 inches long you will need 4 times that amount of chrome spots; in this case 136 spots.

There are several ways to attach the ends of the belt together. Leather thongs, snaps and buckles are most common. Buckles are highly recommended. One large buckle is adequate but a pair of small buckles as shown in photo 1 is suggested. Due to the belt width (anywhere from 3 1/2 to 5 inches) it covers a waist area that is not always uniform in width and a pair of buckles help it to fit better. Purchase 4-8 rivets to attach the buckles to the belt.

The next step is to pre-pucnch the holes in the leather. If the leather is not too thick most sewing machines are capable of handeling this job or a shoe repair

man would be happy to do the task. As in Figure 1 pencil in a rectangle about 1/8" less than the loom strip all around. Make a second line at the ends 1/2" from the first. As in Figure 1 do not center this rectangle skew to one side so belt will overlap 4 - 6" when worn. Run the sewing machine down these lines without thread in the needle or bobbin. The result is a set of evenly spaced pre-punched holes through which to sew the loom strip to the leather by hand.

Once the leather is pre-punched, it should be coated with mineral oil or dyed, though some leave the strap leather untreated. Your author mmuch prefers a coat of mineral oil spread on one side only. Avoid dying or coating the side next to the shirt as it will stain the shirt.

It is suggested that the small slits for the chrome spots are punched next. File or grind down a small screw driver to sharp edge whose end width approximates the tongue of the chrome spot. It makes a great little slit just the right width with only the slight top of the hammer. Mark the site for the slit with the smallest pencil mark as any ink or horizontal mark will show on the finished product. Don't insert the chrome spots yet as the thread will continuously get entangled in their bent over ends as the beadwork is sewn in place.

To sew the beadwork to the leather via the pre-punched holes, use a pair of plyers to cut off the point end of your needle. The blunt end could then be filed smooth. In this manner the needle will not catch any of the leather as it is nudged through the pre-punched holes. A clever trick that will eliminate an hour of frustration. Use a waxed thread doubled that was used in beading the loom strip. Pass the needle up through the hole across 2 or 3 rows of beads at most and then down through the next hole. WARNING! Do not sew beadwork on while leather is flat. Buckle the belt together before sewing on the beadwork - or - at least hold it in a curved or flexed mode. Otherwise the loom beaded strip will be stretched when the belt is buckled together and the result will be popped beads and/or a torn bead strip.

After the strip is sewn in place add the chrome spots and buckles. Make sure to push the spot prongs firmly in to the center on the back side of the leather. Use the edge of the screw driver. Do not hammer. Loose prongs will rip up shirts if they are not securely pushed down. The last thing to do is to punch holes in the buckle straps - again allow for growth.

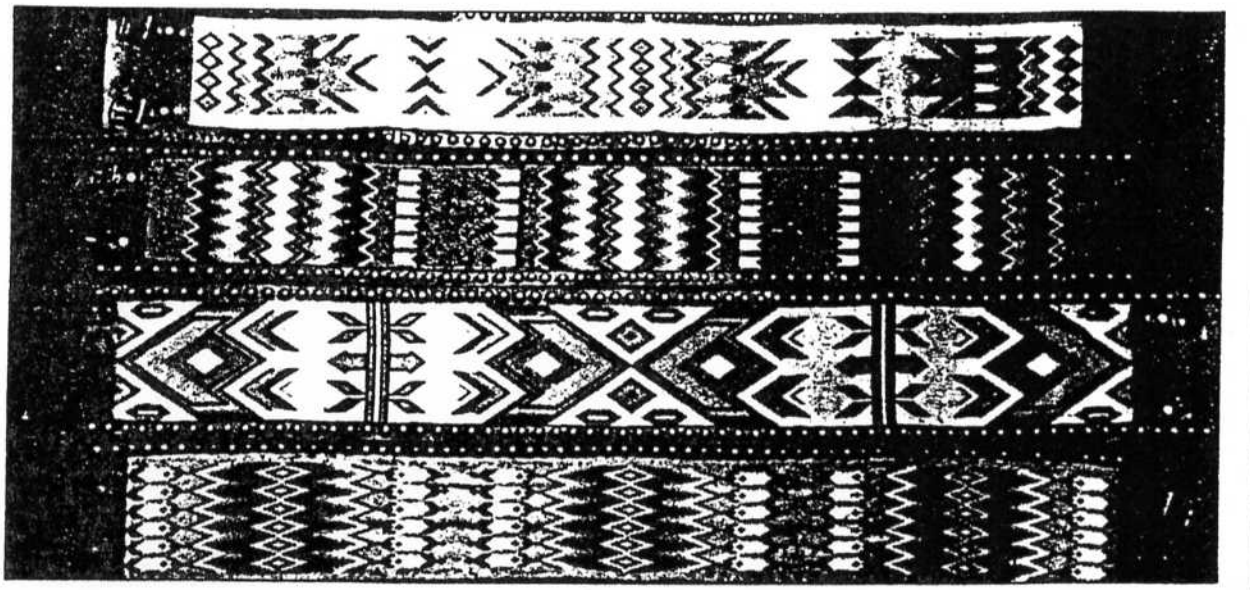
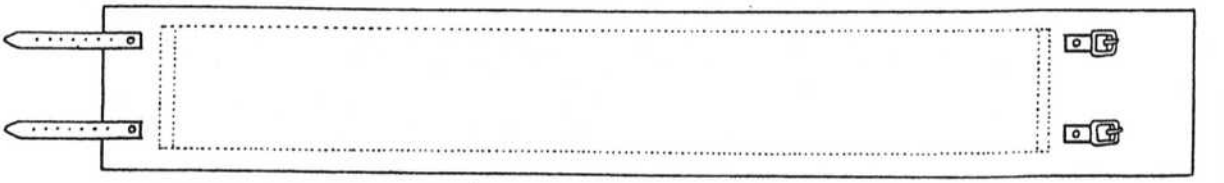
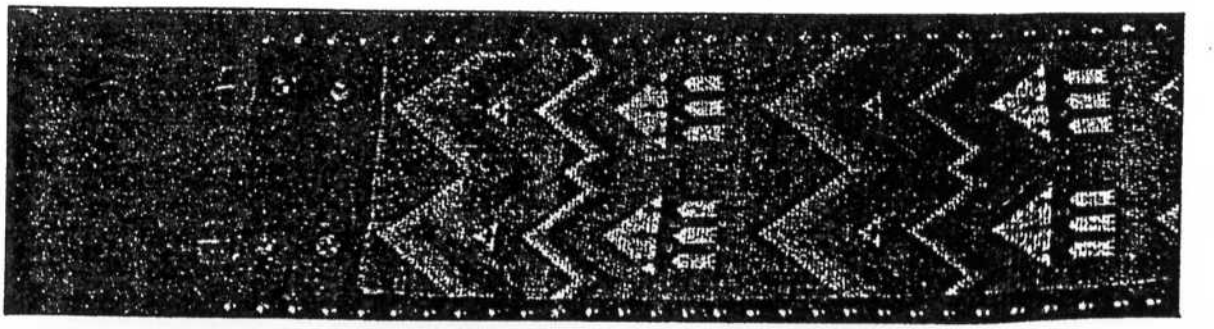


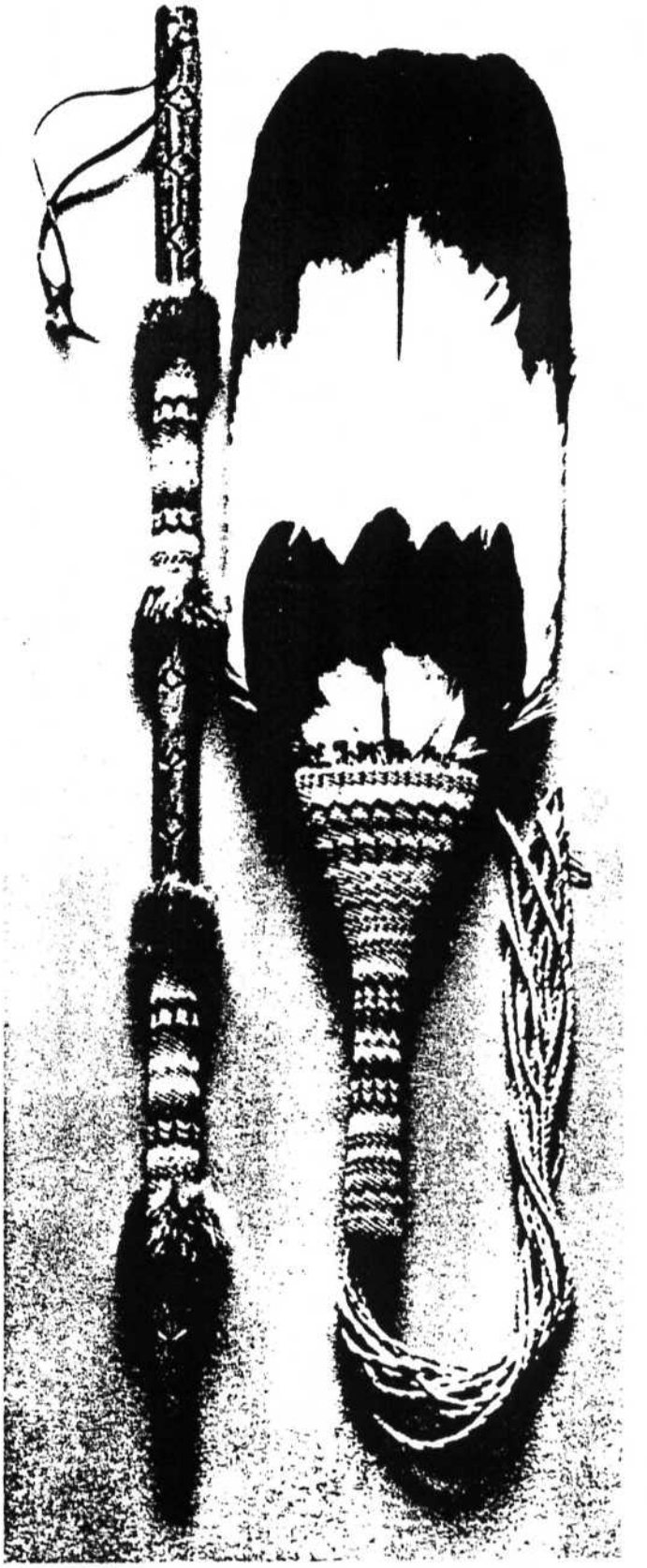
FIGURE 1





PEYOTE BEADWORK
by Jerry Smith

We would like to present a brief explanation on how to start to do peyote beadwork. This will provide yo you with only some initial information. For more detailed information see Ty Stewart's articles "'Peyote' Beadwork" Part I Singing Wire January 1969 and "Peyote Beadwork" Part II AICC November 1969.
This style of beadwork known as "Peyote" beadwork or sometimes known as gourd stitch is employed as one means to decorate items of cylindrical shape such as fan handles, earrings, whistles, dance canes, staffs, etc. The effective use of color contrasts and rainbowed elements of the design make the finished product a curious wonder to those who are not familiar with this type of beadwork. It is almost impossible to diagram the designs used; therefore, we supply the photo above as an example of excellent peyote design and craftsmanship. Study the photo and practice creating some of the design elements and you will advance greatly.



How to Start
Glue leather around your object and trim off the excess. To start, push threaded needle through leather at top (or bottom) of object and string on some beads. Wind beads around the object so that they completely encircle the circumference, (Fig. I). Count the beads. If the number is not divisible by 6 add or subtract beads to arrive at a total divisible by 6 such as 18, 24, 30,36, etc. Next take off 1/3 of these beads. Put needle through bead # 1, the first bead you put on and then string on another bead marked "25," Fig.I. Put needle through the 3rd bead, so that it lies between bead 2 & 3. Finish the row in this manner, putting on a bead and passing the needle through every other one. When you put on the last bead of this row #36 you will pass through bead #1 for the 3rd time. Fig 3. Then pass through bead "25". You have now established the "three-drop" pattern. Continue by stringing a new bead and passing through the lowest bead. Fig 4.
Keep your work tight but not extremely tight. Small cut (faceted) beads 16/o, 13/o, 12/o and small seed beads that are not cut are preferable.

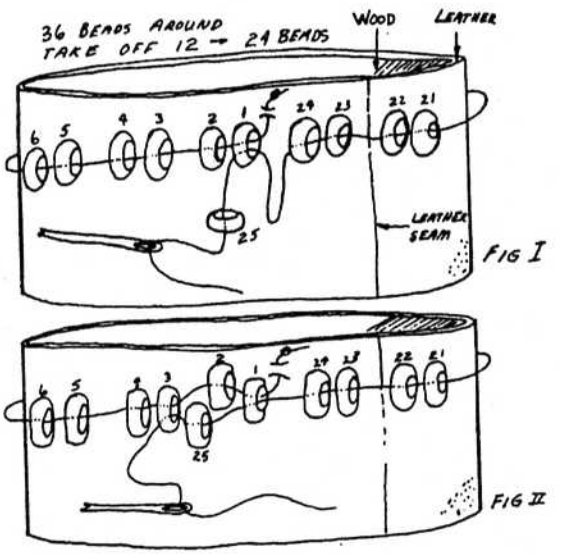



FIG I



FIG II

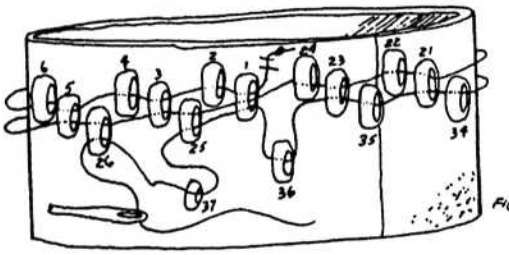


FIG III

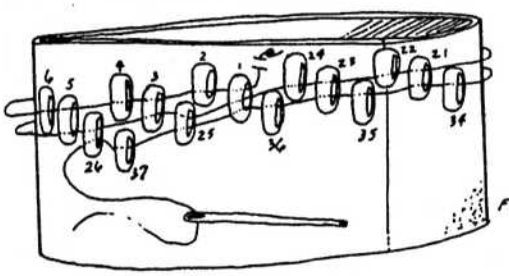


FIG IV