

Weaving Block Patterns on the Daga and Kircher Looms

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The weavings illustrating this article were all done at King's Park State Hospital, King's Park, L. I., N. Y.

ANY weaving which can be done on a two-harness loom can be done on the Daga and Kircher looms, including the imitation of four-harness two-block patterns. It is not in the least complicated, as it is easy to get the two sheds on both looms, and it is also an easy matter to transpose these directions from one loom to the other.

THE DAGA LOOM

The Daga loom consists of a flat wooden base strengthened on both ends by grooved crossbars on which are fastened two metal combs with the teeth protruding about one-third of an inch. Two wedge-shaped bars are to be fitted into the grooves and held in place by wingscrews when the warp is in place. The shed is made on a piece of metal which is provided with slots and then formed into a three-cornered rack. On one side of this rack the first slot is long and the second is short, and so it is through the whole length of the rack, every other slot long and the other one short. Now to further examine the rack turn it, and it will have the appearance of being evenly riddled through the whole length. Give the rack one more turn and the slots will show up every other one long and the other one short. Then on closer examination it will be found that the slots which are long on the

first side are short on the second, and vice versa.

To warp the loom for an ordinary plain weave or different ornamental weaves, it is necessary to place one or two threads in each slot; to produce a block pattern some of the slots must be skipped and more threads put in some of the other slots to fill up the space. In that manner patterns can be made to suit one's almost unlimited fancy.

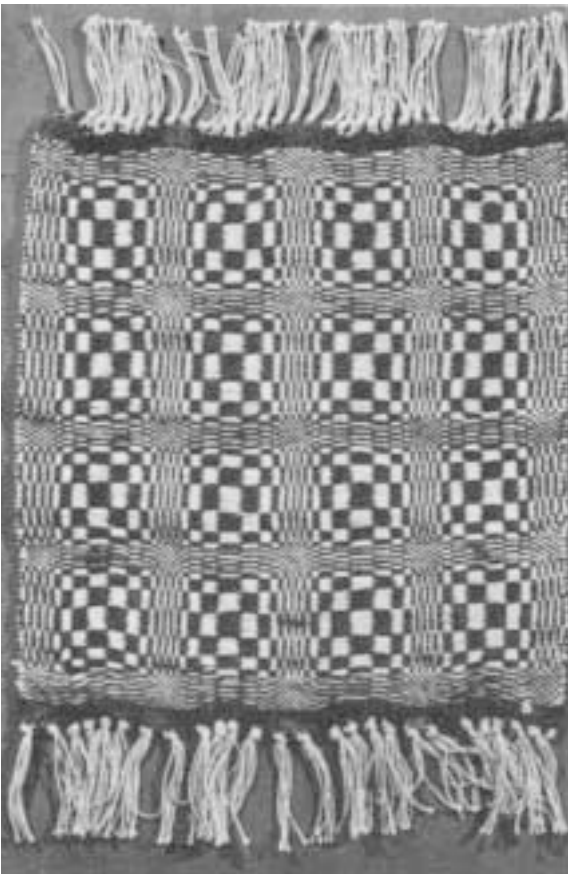
The Daga loom comes equipped with a rack which has 13 slots to two inches.

To produce the "Lasting Beauty" pattern as illustrated, make a warp of 178 threads, spread it over about 13 inches of the front of the loom, insert the wedge-shaped bar and secure it with the wingscrews. Carry the warp over the loom to the other side, spread it over 13 inches, and secure the wedge-shaped bar after having pulled the threads tight. Now insert the rack with side No. 1 up, place two threads in a long slot and two threads in the next short slot, two threads in the next long



Woven Square in Lasting Beauty Pattern

slot and two in the next short slot until 12 slots, 6 long and 6 short, each hold two threads. These will make the twelve small blocks on the side of the weaving. To make the first large block place two threads in the next long, skip one short, two threads in next long, skip one short, and two



Woven Square in Four O'Clock Pattern

threads in next long slot. The second large block is formed by placing two threads in each of the next four short slots and skipping the three long ones between them. Then place two threads in the next long slot, two in next short, and two in next long slot. Make the next block by placing two threads in each of the next four short slots, skipping the three long ones between; and the next large block is made by placing two threads in each of the next four long slots, skipping the three short ones between. Now place two threads in each short and long slot until 27 slots are filled up and No. 27 will be a short slot. Make the group of two large, three small and two large blocks, and finish with twelve small blocks, as on the other side. The warp must now be straightened out in the teeth on the front and back of the loom to correspond with the slots in the rack, and it must be pulled very tight. If these two points are adhered to it will be easy to do the actual weaving.

Start the weaving with a dark shuttle. Place the rack in position of Shed A, push the shuttle through, beat the thread down, turn the rack over to Shed B, push the shuttle through and beat the thread down. Do this six times, twelve picks, to make a foundation. Always turn the rack over the

riddled surface, or the pattern will be lost and must be rearranged. On each pick, place the thread diagonally on an angle of 20 degrees, and with an even-toothed comb push it down, beginning where the thread hangs loose and working over to the other side of the web. Thus the extra length of the weft thread will be taken up between the warp threads and the fabric will not pull in.

To start the pattern, push the dark shuttle through Shed A. Change to Shed B and push the light shuttle through. Change to A, push the dark through; change to B, push the light through. Now push the dark shuttle through the same Shed — B — and the light through Shed A, again the dark through B and the light through A. Repeat these eight shuttles eight times, 64 picks in all, making 16 small blocks. The first large block is then woven by pushing the dark shuttle through Shed A and the light through Shed B eight times. Then the second large block is woven by pushing the dark shuttle through Shed B and the light through Shed A eight times. The three small blocks are made on Shed A dark shuttle, Shed B light shuttle, A dark, B light, B dark, A light, B dark, A light, A dark, B light, A dark, B light. The next large block is then made with the dark shuttle in Shed B and the light in Shed A, eight times, and the fourth large block is made with the dark shuttle in Shed A and the light in B eight times. Next comes a number of small blocks. To make them, weave the dark shuttle in B shed and light in A shed twice, then dark in A and light in B twice, repeat those eight shuttles thirteen times and weave dark shuttle in B shed and light in A shed twice. That will make 27 small blocks in all. Now make two large blocks, 3 small, 2 large and 16 small blocks again and finish with 12 picks of the dark shuttle, and the square is completed. It may qualify as a chair seat, pillow top or table mat; or other uses may be made of it. Note that the next block is always started on the same shed on which the last one was finished.

When the web has reached a certain length it will be difficult to insert the shuttle, and the web must be readjusted. To do this, loosen the wedges at back and front of the loom, pull the web down as far as necessary, and fasten the wedges again. The warp must now be rearranged in the rack and the teeth at the back of the loom and the warp must be pulled tight and even again. It will be necessary to loosen and fasten the wedge at the back several times.

To warp the loom for "Four O'Clock," put one single thread in each of the first eight slots, 2 threads in next long, 2 in next short, skip one long, 2 threads in next short, 2 threads in each next three long, skipping the two short, 2 threads in each next

four short, skipping the three long, 2 threads in each next 3 long, skipping the two short, 2 threads in each next two short, skipping one long between them, 2 threads in next long, one thread in next 8 slots, 4 short and 4 long, 2 threads in next short, 2 threads in each next two long, skipping the one short between, 2 threads in each three short, skipping the two long between, 2 threads in each next 4 long, skipping the three short between, 2 threads in each next 3 short, skipping the 2 long between, 2 threads in each next 2 long, skipping the one short between, 2 threads in next short; repeat; and finish warping with 8 single threads in the next eight slots, 4 long and 4 short.

To weave it, start with a foundation of 12 picks of the dark shuttle and then: Shed A dark, Shed B light, B dark, A light four times; A dark, B light twice; B dark, A light four times; A dark, B light six times; B dark, A light eight times; A dark, B light six times; B dark, A light four times; A dark, B light twice; B dark, A light, A dark, B light four times; B dark, A light twice; A dark, B light four times; B dark, A light six times; A dark, B light eight times; B dark, A light six times; A dark, B light four times; B dark, A light twice. Repeat this as often as wanted and finish with A dark, B light, B dark, A light four times and twelve picks of the dark shuttle to balance.

To warp the loom for pattern No. 1, proceed as follows: One single thread in six slots, 3 long and 3 short, three threads in next long, skip one short, three in next long, one in next short, three in next long, one in next short, three in next long, skip one short, three in next long, one single thread in each of next six slots, 3 short and 3 long, three threads in next short, skip one long, three in next short, one in next long, three in next short, one in next long, three in next short, skip one long and three in next short. Repeat as often as desired and finish with the six single threads as the starting.

To weave it start with a few picks of the dark shuttle and then the pattern as follows: A dark, B light fifteen times; B dark, A light twice; A dark, B light four times; B dark, A light twice; A dark, B light fifteen times; B dark, A light two times; A dark, B light twice; B dark, A light twice; A dark, B light twice; B dark, A light twice; A dark, B light twice; B dark, A light fifteen times; A dark, B light twice; B dark, A light four times; A dark, B light twice; B dark, A light fifteen times; A dark, B light twice; B dark, A light twice; A dark, B light twice; B dark, A light twice; A dark, B light twice; B dark, A light twice. Repeat as often as desired.

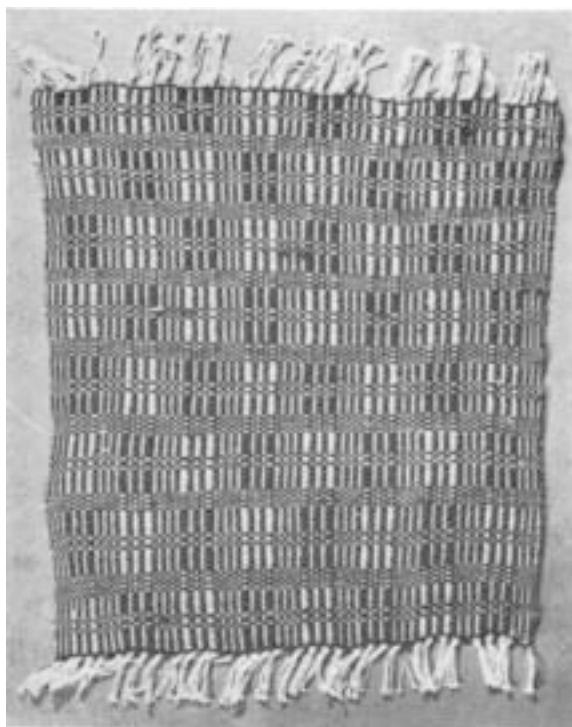
A carpet warp was used in these pieces. "Lasting Beauty" and "Four O'Clock" were woven with a light tan perle on one shuttle and a dark red novelty yarn six strands together on the other. Pattern

No. 1 was woven with a black perle on one shuttle and a blue-green rayon on the other. "Four O'Clock" was woven on the finer slotted rack.

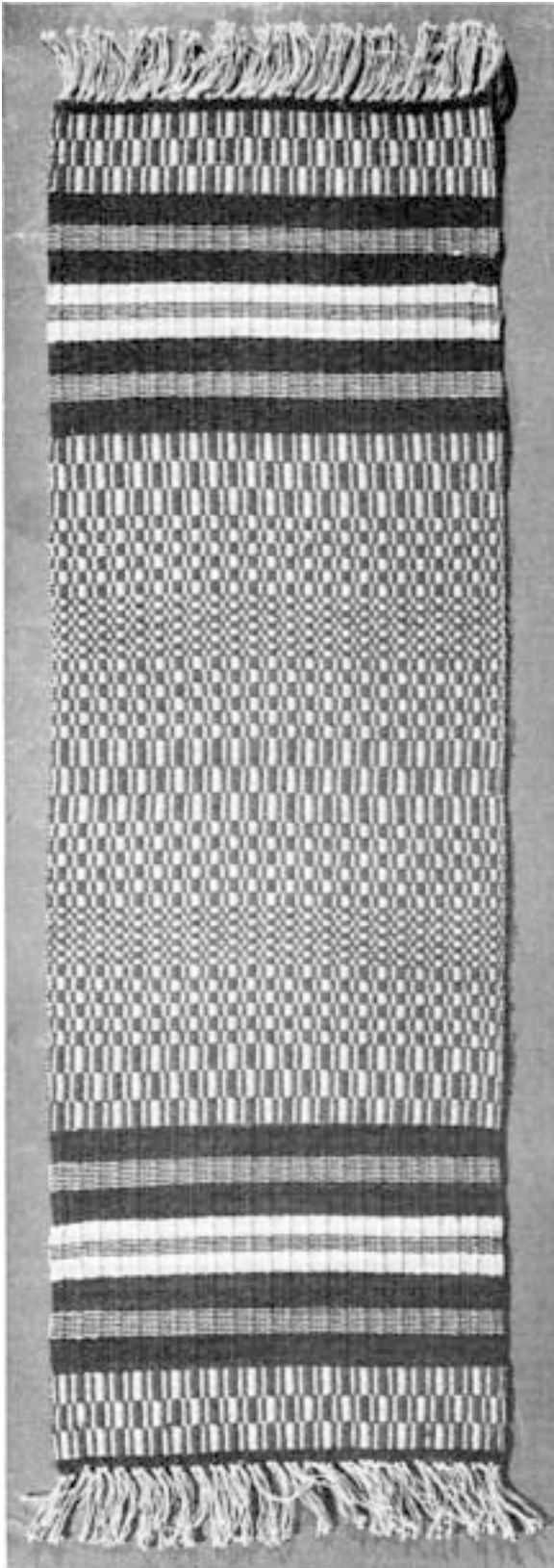
THE KIRCHER LOOM

Four wooden pieces fitted together form the frame of the Kircher loom. The front and back pieces are supplied with wooden pegs four to the inch. Two metal brackets slide on the side bars and metal pins are stuck through holes in brackets and bars to hold them in place. The reed faces the front of the loom and consists of narrow pieces of wood with a hole bored in the middle, held together with a slit between every one by two long pieces of wood, one of them protruding two and one-half inches on both sides, thereby forming two arms with which to rest on the brackets. This reed holds nine threads to the inch. Shed A is produced by resting the reed on the brackets, and Shed B by lifting it off and pressing it down. To weave a plain tabby or various ornamental weaves, the loom should be warped one or two threads in each eye and slit of the reed. When a block pattern is wanted, some of them must be skipped.

To warp the loom for pattern No. 2, place one thread in a slit, one in an eye, three in next slit, skip one eye, three threads in next slit, one in next eye, one in next slit, three in next eye, skip one slit, three threads in next eye, pull the threads from the front through the reed, tie them together in a knot and slip them over a peg on the backboard. Repeat



Woven Runner in Pattern No. 1



Woven Runner in Pattern No. 2

as often as wanted. To get three threads through one eye, a tapestry needle is a great help. When all the threads are thus placed, loosen the backboard and turn it once with an outward movement and be sure every thread goes over the same peg as it was knotted on, and pull them tight, then put the backboard in place again, take the long warp threads and with both hands pull them evenly, then holding them with one hand straighten and untangle all the snarls with the other. A short, even-toothed comb could be used to advantage. Be sure every thread is straight and even. Then loosen the backboard again and, while holding the warp with one hand, turn it once around and fasten it again, taking care that the threads are evenly distributed over the pegs. If a piece of dowel three-quarters of an inch in diameter is placed on each side of the board when the winding is done, more warp will be taken up, which will be needed later when the web is wound on the frontboard. Continue straightening out and winding the warp until enough is left to go across the loom and tie on the front bar. Now take every group of eight threads, tie them together and slip them in a straight line over the pegs on the frontbar. With the fingers try the tension, which should be even. Any loose threads must be tightened before the weaving commences.

To weave pattern No. 2, start with the dark shuttle. Push it in on Shed A. Always leave the thread hanging at an angle of about 20 degrees, beat it down with the reed, open the B shed, push the shuttle through and beat it down with the reed. Thus put in 12 picks with the dark shuttle. To form the pattern, push the light shuttle in on Shed A, beat the thread down and push the dark shuttle in on Shed B twelve times; then the light shuttle on B and the dark on A twelve times; then the light on A and dark on B twelve times. Now put in 24 picks of the dark shuttle alternately on Sheds A and B. Then two picks of the light shuttle on A and B, one on each, and two of the dark shuttle on A and B, one on each. Repeat these four picks until six light-colored lines are formed. Then again put in 24 picks of the dark shuttle. Now make the next band with 24 picks of the light shuttle, put in two picks of dark and two of light until four dark lines are made, and put in 24 more picks of the light shuttle. Make another band of 24 picks of dark, alternately two picks of light and two of dark until six light lines are visible and 24 more picks of dark. *Then one shuttle light on B shed and one of dark on A shed twelve times; then one of light on A and one of dark on B twelve times, and one light on B and one dark on A twelve times. **Thereafter one light on A and one dark on B six times, one light on B and one dark on A six times. Repeat these last two blocks three times, making six in all. Then

one light on A and one dark on B three times, one light on B and one dark on A three times. Repeat these small blocks four times and then one light on A and one dark on B three times, making nine small blocks in all. Now make another set of blocks with six light and six dark picks in each, and repeat all four sets of blocks from * to make a shaded effect in the center of the runner. Then start at ** and work back to the beginning and finish with the 12 picks of the dark shuttle. To make a firmer material the weft thread may be beaten down with a comb. The tighter the warp is stretched, the firmer weaving may be accomplished. When the web is about six inches from the reed, push the brackets down to the second hole in the sidebar and, when it approaches too closely to the reed after the brackets have been moved to the third hole, the front and backboards must be loosened and turned. First loosen both boards, then turn the backboard once to unwind the warp and fasten it again, then turn the frontboard once to roll the web on and fasten it again, move the brackets with the reed down, and the loom is ready for weaving again.

To warp the loom for "Queen's Patch," start with sixteen single threads in sixteen-slits and eyes, eight of each, then put three threads in next slit, skip one eye, three threads in next slit, one thread in next eye, * three in next slit, skip one eye, three in next slit, three in next eye, skip one slit, three in next eye, one in next slit, three in next eye, skip one slit, three in next eye, one in next slit, three in next eye, skip one slit, three in next eye; repeat from * twice, and then three in next slit, skip one eye, three in next slit, one in next eye, three in next slit, skip one eye, three in next slit. That will make fifteen large blocks in all. Repeat from the beginning and finish warping as starting, with sixteen single threads.

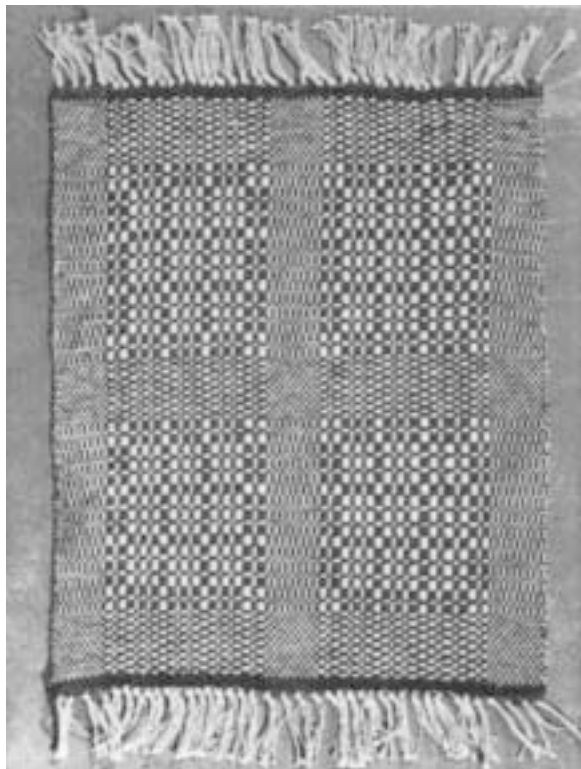
To weave "Queen's Patch," first put in 12 picks with the dark shuttle alternately on Shed A and B. Then one light on A, one dark on B, one light on A, one dark on B, one light on B, one dark on A, one light on B, one dark on A. Repeat these two small blocks six times and then one light on A, one dark on B, one light on A, one dark on B. That makes fifteen small blocks on all. Then one light on B and one dark on A five times; one light on A, one dark on B twice; ** one light on B, one dark on A five times; one light on A, one dark on B five times; one light on B, one dark on A twice; one light on A, one dark on B five times; one light on B, one dark on A twice; one light on A, one dark on B five times. Repeat from ** twice. Then one light on B, one dark on A five times; one light on A, one dark on B twice; one light on B, one dark on A five times. This makes fifteen large blocks. Repeat

from the beginning as often as wanted. Finish with fifteen small blocks and twelve picks of dark thread as started.

To warp the loom for "Sugar Loaf" or "Window Sash," begin about three inches inside the reed as follows: * three threads in one eye, one thread in one slit four times; then three threads in one eye. ** Then three threads in one slit, skip one eye, three threads in next slit, one thread in next eye four times; then three threads in next slit, skip one eye, three threads in next slit. Repeat from the beginning three times. Then finish with the first unit of the pattern from * to **.

To weave this pattern, first make a foundation of twelve picks of the dark shuttle alternately on Shed A and B. Then one light on B, one dark on A, one light on B, one dark on A, one light on A, one dark on B five times; then one light on B, one dark on A, one light on B, one dark on A. This will make six small blocks. Now *** one light on A, one dark on B five times; one light on B, one dark on A twice. *** From *** to *** four times. Then one light on A, one dark on B five times — five large blocks in all. Repeat from the beginning as often as wanted and finish with the six small blocks and twelve dark picks as in the beginning.

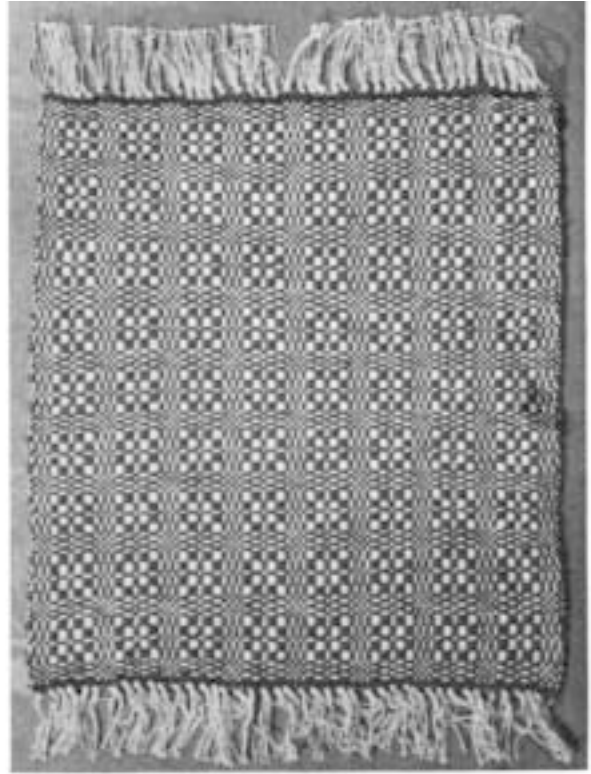
To warp the loom for "Monk's Belt," begin



Woven Square in Queen's Patch



Woven Square in Sugar Loaf Pattern



Runner in Monk's Belt Pattern

about two inches inside the reed with five single threads in three eyes and two slits, then three threads in next slit, skip one eye, three threads in next slit, three threads in next eye, skip one slit, three threads in next eye, one thread in next slit, three threads in next eye, skip one slit, three threads in next eye, three threads in next slit, skip one eye, three threads in next slit. Repeat as often as wanted and finish with five single threads as the beginning.

To weave "Monk's Belt," begin with twelve picks of dark alternately on A and B, then one light on B and one dark on A twice; one light on A, one dark on B twice; one light on B, one dark on A twice; one light on A, one dark on B twice; one light on B, one dark on A twice. This makes five small blocks. Then one light on A, one dark on B five times; one light on B, one dark on A five times; one light on A, one dark on B twice; one light on B, one dark on A five times; one light on A, one dark on B five times. Repeat from the beginning to get the desired length and finish with the

five small blocks and twelve dark picks as in the beginning.

A carpet warp was used. The light shuttle was a tan perle and the dark shuttle a dark red novelty yarn, six strands together.

* * *

The above sets forth only one way in which to weave these block patterns. When a pattern is being woven, new ways of weaving the same threading always suggest themselves, and in weaving colored or striped pieces with borders woven square, one may go on indefinitely and not tire of these patterns, and by doing plain weaving with colors in stripes or plaids or the various tapestry weaves which are possible on these looms, one may weave a lifetime on these looms and turn out beautiful work without going to the expense of getting a large loom, and as these small looms may easily be tucked out of sight when not in use, they are welcome where space is limited.