

THE TECHNIQUE OF SIMPLE RUG WEAVING

THE newest and best of the modern home-made rugs bear little resemblance to the "hit and miss" rag carpets which have been woven in country places for many years past, and which, though durable, are usually ragged in appearance and uncouth in coloring. A few women who care about these things have decided that there is no reason why a home-made rug should not be as beautiful in color and texture as it is durable, and this desire for beauty in the simple things which are a part of every-day life, seems to have brought about a revival of old time industries, particularly of weaving. Old hand looms of Colonial days are being widely sought after, and are generally preferred, at least by the amateur, to the more profitable efforts of the steel looms.

Not only is there a desire among country women to know how to make home products beautiful, but there is a commercial demand for these home-made rugs, and women who want to make extra money, and who usually need to make it, are finding a ready sale for these new designs of simple rugs and hangings, which can be seen to-day at all the best of the arts and crafts exhibits.

THERE are several varieties of good steel looms on the market, which cost anywhere from thirty to one hundred and twenty dollars. This, however, is a large outlay for the woman who wishes to supplement her income with a few dollars

a week, and this expense is not necessary to the woman with any ingenuity. All over the continent there are old hand looms to be found, which, for the beginner at least, will answer every purpose. They are stored away in the attics and barns of farm houses, and almost without exception the farmer's wife, unless she is a weaver herself, is glad to dispose of them. Often they can be picked up at junk shops in country places. And it is rare to find an auction in the country town without a loom or two for sale. If one does not know just the barn or attic to invade, or if there is no auction "on," then a sure way to find a loom is to advertise in one or two papers of remote, old-fashioned villages. As a rule, these old looms can be purchased for five dollars or less, and it usually requires a dollar or two outlay to put them in order.

It is best, if possible, to have the loom put up by a practical weaver, as a modern carpenter is not often familiar with loom building, and certain essential parts could be missing without his realizing it. An old loom consists of a frame of four square timber posts about seven feet high. They are connected at the top and bottom by frame work. At the back of the loom a yarn-beam is placed, about six inches in diameter. Upon this beam are wound warp threads which are stretched over it to the cloth beam at the front of the loom, which is about ten inches in diameter. In addition to the yarn-beam and cloth beam, a loom

is fitted up with heddles, a lay or batten, a reed and shuttles, and a wheel for winding the materials; the wheel for winding the strips usually goes with the loom. The placing of the warp-beam is not often nowadays done by the weaver herself, as it is a complicated process and difficult to describe. The amateur weaver usually sends the warp-beam to a beamer to be fitted up. This costs but very little and enables the beginner to start in the right direction. Usually people who sell the warp can tell the weaver where a beamer is to be found and what to pay.

As the commercial warps are rarely fast color, unless dyed to order, white warp is the most practical for almost all kinds of weaving, and if a light weight is chosen, the warp threads are almost concealed by the weft. When the beam is placed in the loom, the warp threads are carried across the beam, over the back cross-bars and threaded through the two sets of heddles, then through the reed and over the front cross-bar of the loom, where they are attached by an iron bar which is connected with the cloth beam. The heddles consist of two frames containing looped wires for the warp threads, which are on different horizontal planes when the shuttle is thrown through the warp. It is almost impossible for a beginner to realize how the heddles should be threaded without first watching a weaver, so that it is decidedly best to engage for a day or two a weaver who can erect the old loom, and adjust the beam containing the warp, show how the heddles should be threaded, and spend the rest of the time in teaching the process of weaving.

A rag carpet weaver's knowledge does not often go beyond the making of rag carpet; but the fundamental principles are the same here as in weaving a better grade of rugs. Of course, the village rug-maker will say that white warp must not be used, that it should have been made in groups of all the gorgeous colors that rag carpet weavers love, as they rely entirely upon the colored warps to brighten their dingy rags. If the craftsman is far removed from a town, warps can always be purchased at the village store, where also one can usually get in touch with a weaver.

RAGS have long been discarded for weaving, and new materials are used, cretonnes, ducks, denims, Canton flannels, ticking, unbleached muslin, prints, and roving yarns. Care should be taken to select fabrics that have been carefully dyed, so that when the rugs are washed there will be no danger of colors running. The "oil dyed" turkey twills in red and blue can be relied on. For plain border making, the cream of unbleached muslin is much prettier than white muslin. It is not so conspicuous, and does not soil so readily. Materials at fifteen cents are often not as expensive as those at seven cents, as a material that crushes up into a small space will use more yards than a bulky material, like denim or Canton flannel. In many towns there are shops that buy "seconds" from the mills, and these can be made use of for individual work, as a piece of material which has a blemish in the weaving is just as good for weaving as a perfect piece. Sometimes a bolt of

denim is badly marked by the dyer, and is condemned as a "second," but the variations in color would in nowise detract from its value for weaving. As these odd lengths cannot be matched, they can only be used for individual pieces.

Having decided upon the color-scheme and bought the material, it must be cut or torn into strips. If a smooth finished rug is required, cut the material, if a rough surface, it must be torn. The tearing is a simple process. If materials like duck, denim or Canton flannel have been selected, divide the width of the material into inch strips, cutting these about two inches deep, to insure the goods being torn perfectly straight. Then cut off about twenty yards and tear it quickly. By nailing the width to wood-work and running quickly from it, it will be well and rapidly torn. The material should be wound into balls immediately to keep it from tangling. The cutting can be done by winding the material into a tight roll, and tying it with string; then taking a sharp carving knife or butcher's knife and slicing it like a loaf of bread. If a piece of paper has been laid on the table, with the inches indicated, it will serve to guide the eye.

The beginner usually finds considerable difficulty in estimating how much material to prepare for a given length of weaving, and this cannot be ascertained without some little trouble. Every piece of material should be weighed and measured, and the amount jotted down in a book. Afterward, it can be ascertained how far it went. Good, firm weaving should weigh not less than two

and one-half pounds a square yard, which would mean that from five to seven yards of heavy material, like denim, will be required to make one yard of weaving. If turkey red twill is used, it would take ten yards to make the weaving firm enough.

HAVING put the loom in order and prepared the fabric for weaving, the ball of material must be wound onto an iron rod which is turned by the winding wheel. It is then placed in the shuttle, the rod first being removed. The end of material is threaded through a hole at the end of the shuttle and pulled through about half a yard. Before beginning to weave the material, six or eight inches of warp must be left for the knotting of the fringe. A heading of warp must also first be woven for an inch and a half, to keep the fabric from fraying. The seat must be adjusted to a comfortable height in order that the worker may have full control over the loom. Then push the left treadle down with the left foot, which will cause a gap in the two layers of warp, take the shuttle in the right hand and throw it to the other side of the loom, between the warps, holding with the left hand that part of the loom which contains the reed. This is called the lay. Leave a couple of inches of material at the edge of the rug. After the shot has been thrown, pull the lay or batten forward, and press the right foot down, releasing the left, which will make a reversed gap between the two lays of warp. The shuttle is then placed in the left hand and is thrown from right to left, between the

warps, the lay being pulled forward between each throw. This is the simple process of weaving, repeated over and over again until the shuttle is empty. When the new shuttleful is added, do not sew two strips together, but cut each into a tapered point and overlap them. The join will then be invisible, which is not always the case in amateur work.

Having woven the heading, the material is then woven for five or six inches. A beginner must first learn to make three plain borders of contrasting colors before beginning the more intricate patterns. Supposing blue denim, with plain unbleached muslin for the borders, is selected for the first set of rugs. Weave about five inches of denim, and then two inches of unbleached muslin. The blue is then woven for three inches, followed by another two inch border of cream muslin. Repeat, making three bars at each end of a five by six foot rug. If the rugs are longer, five bars would look better.

Many of the old-fashioned looms have templets for stretching the fabric while it is being woven. They have little teeth at the ends, but as these are apt to make holes in the material, the modern substitute is a simple arrangement of hooks and string on either side of the rug, supported by the frame of the loom and weighed at the ends of the string. These, however, have to be moved forward as the weaving proceeds.

It is a great waste of time to cut the rugs out of the loom until all the warp is used up, but, of course, it can be done. The cloth beam will hold over fifty yards

of weaving, and a very usual length of warp to order is enough to make fifty yards of weaving. In weaving a rug a certain length, it will be found that there will be twenty-five per cent of shrinkage, or "take up," as the weavers call it. This means that when the rug is in the loom it is tightly stretched. This shrinkage must be allowed for, and the rug in the loom not measured by actual inches. For instance, to make a three by six rug, take a length of tape and pin it firmly to the heading. Then indicate on it the length of forty-five inches. As the rug is woven, the tape is visible, and when the mark of forty-five inches is reached, pin the tape securely to this spot, which should be the center of the rug. Then weave the other forty-five inches, placing the borders in the same places as in the first half of the rug, which should have been indicated on the tape. This will enable the weaver to make the rug the desired length and to make the borders match.

IN looking at the detail illustration of a Martha Washington rug, it will be noticed that white stripes have a blurred effect of color introduced. This is formed by using a broad striped material with the bars of color running horizontally. When this is cut lengthways, the patches of color come at regular intervals, so that the color-scheme consists of two shots of this material woven into each of the four white borders. In examining the borders it will be seen that the first shot consists of a twist, followed by one shot of the strongest color in the rug. Then follow

two white shots and two of the striped material; two more white shots and one of the strongest color are then woven. Next a medium shade is introduced, with the dark color in the following shot. After this the white border with the stripes is repeated, and a wide green border is woven, outlined on either side with a dark red. The center of the green border has a crow's-foot of red and white. Then follow two more white borders, which are woven the same as the two white borders on the other side of the green center border, forming a mass of beautiful coloring, easy to copy, but not particularly easy to evolve.

A detailed illustration of a John Alden rug shows one of the modern loosely woven styles. When threading the loom for this weave, instead of putting the warp through each heddle, two warps are threaded through one heddle, and the next one is skipped; two warps go in the third heddle hole, the fourth one being skipped and so on across the loom. This is called "double warping." This border is exceedingly simple, and is made by first weaving twelve shots of white, and then a shot of color; one of white, another of color, alternately for three inches. Twelve more shots of white complete the border. This forms a checkerboard pattern, which is very effective, and yet easy for the beginner. This open weave is well suited for a bath mat, as it is soft to stand on, especially when made of Canton flannel; this weave is also recommended for draperies.

Another form of simple pattern making is to weave an entirely plain rug, and afterward to add designs by strips

of material threaded through a bodkin. This is advisable when a series of arrows and Indian designs are wanted. These rugs do not wear quite as well as the woven ones, so that it is better to make use of this kind of design formation when weaving curtains or pillows. Sometimes the ends are left sticking up, which is suitable in a hanging and entirely out of place in a rug. This kind of pattern making gives opportunity for all sorts of individual designs; they can be worked out on paper first and the sketch followed when the rug is on the cutting table.

The most intricate style of border making is shown in the Waverly rug, which is attractive in the sitting room where a pile rug seems more in keeping than an ordinary woven rug. The material used for making this rug, unlike the denims and cretonnes, is especially woven on a finely threaded loom into what is known as "weft cloth." This cloth is made from cotton yarns, which can be procured from a yarn merchant. The yarn is dyed the desired colors before being woven into a weft. The pattern having been decided upon for the border, the yarn is then woven in plain bars of different colors at varying distances apart. In the border shown in our illustration, seventy-two inches of black were first woven, then thirty-six inches of cream, seventy-two more of black, and fifty-two inches of cream, two inches of red, twenty inches of cream, six inches of tan, two of red, two of red and five inches of cream, two inches of tan and three of tan, two of tan and five of cream, three of red and two of

cream, six of tan and five of cream. This description has only specified enough for one-sixth of the border, which is repeated in the same manner. When the weft is made as above directed, it is cut into inch strips, when it will be found that each strip makes a complete border. An eight-inch border will take thirty-two shots in the rug, so that the "weft cloth" would have to be woven thirty-eight yards long before the border could be made, but if the cloth is thirty-six inches wide, thirty-six borders could be made, so that it will be seen that this form of rug necessitates a great many rugs being woven at the same time, and only a weaver who is making rugs in large quantities could afford to have so many yards of material on hand, yet it is one of the most interesting forms of hand weaving.

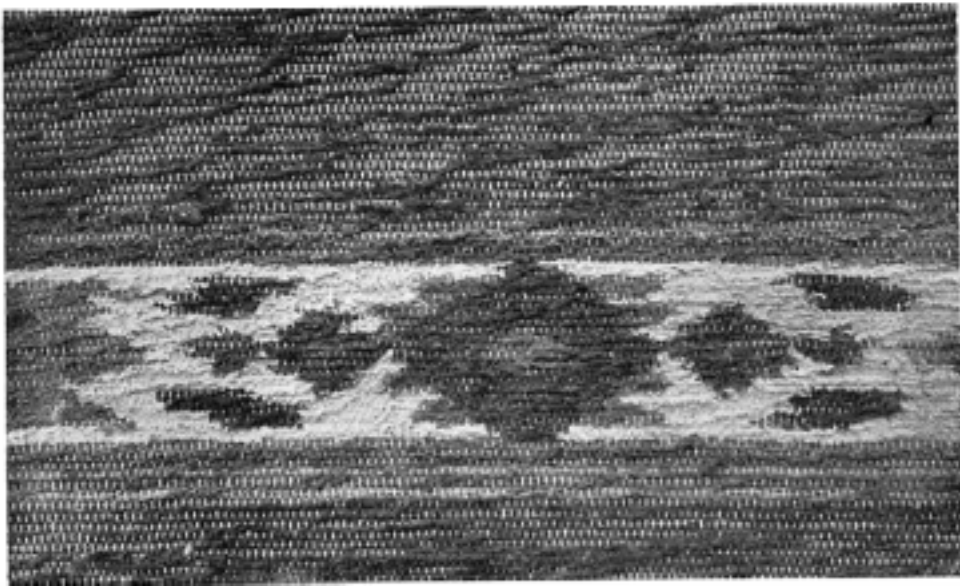
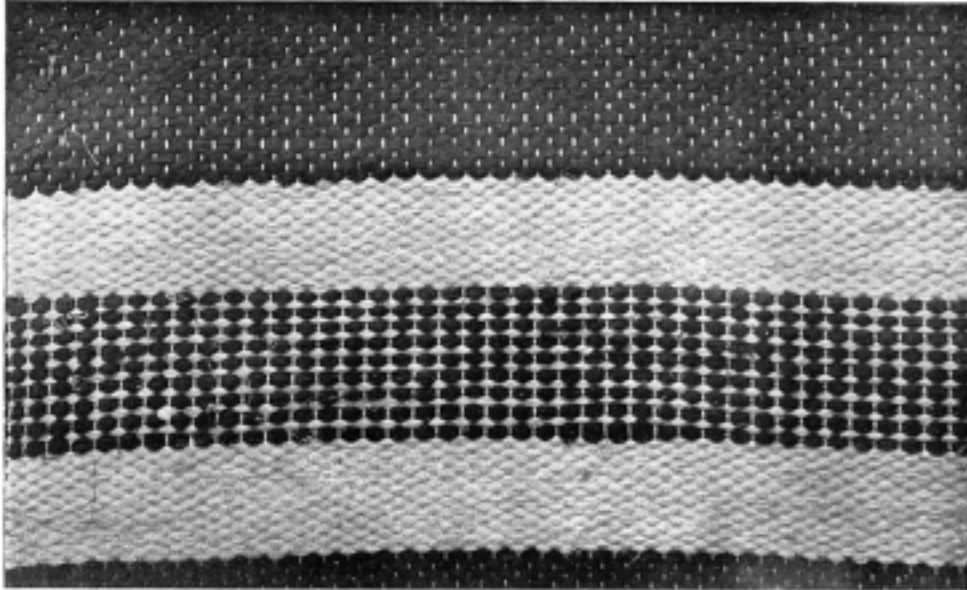
WHEN the rugs are woven, the length must be cut out of the loom and laid on the cutting table. The fringe is cut across, and each rug is gone care-

fully over with shears to remove any irregularities in the weave that would look untidy. They are then ready to be knotted, which is the last process in weaving rugs.

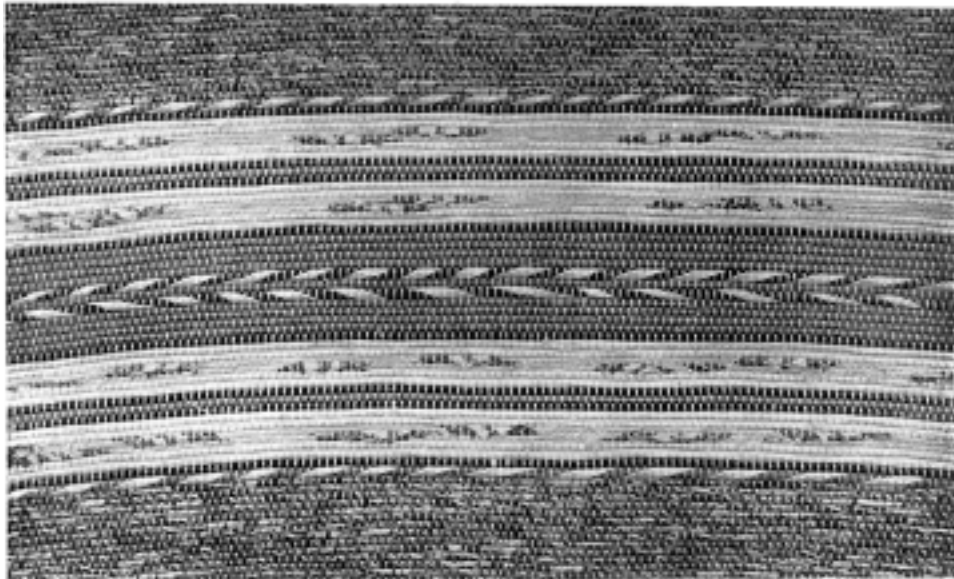
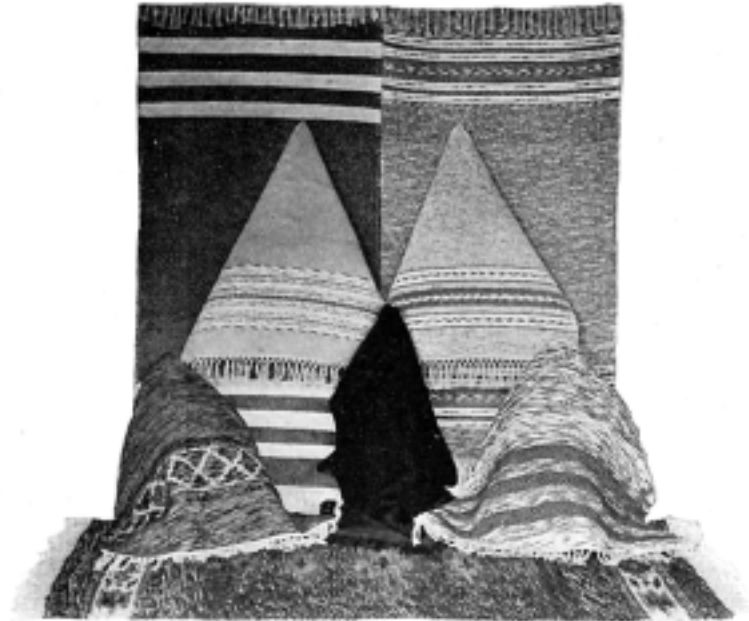
The knotting of a rug gives it a finish, and must be done carefully. Simple, straight knotting of every six threads will insure the rug from raveling, but decorative fringes of all kinds add no little to the beauty of the rug. They can be knotted with a double or triple knotting, or straight, or worked into points. They can also be braided like some of the Oriental rugs. Portieres, curtains, and table covers require less bulky knotting than do rugs.

Our illustration of a group of fabric rugs shows several kinds of knotting. The two Martha Washington rugs in the center are more elaborately knotted than the Priscilla rug at the righthand corner, which has simply a group of warp tied in a single knot at the heading. The Waverly rug is knotted like the Priscilla.

MABEL TUKE PRIESTMAN.



DETAIL OF A "JOHN ALDEN RUG"
BORDER OF A WAVERLY RUG.



A GROUP OF SIMPLE HOME-MADE RUGS.

A KNOTTED MARTHA WASHINGTON RUG.