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CONTENTS

Editorial ........................................ 2
Marionettes ...................................... Margaret Monrad 3
Southwestern Arts .............................. Paul Bernat 10
Some Weaves for Upholstery and Curtain Fabrics
Myra L. Davis 15
Candle Making ................................. Elizabeth J. Nicolaeu 18
Bead Technique ................................. Marjorie M. Flashman 20
Gauze Weaving ................................ Robert F. Heartz 27
Stories of Old Baskets ....................... Ella Shannon Bowles 31
Enamelling ...................................... Gertrude S. Twichell 36
Book Reviews .................................... 41
Looking at the Crafts ......................... 42

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Editorials

A FIFTEENTH-CENTURY Book of Hours, made for a king, resplendent with jewelled tones of red, purple, blue, and green, trailing around the design are intricate traceries like threadings of gold — it is a masterpiece of art and a worthy commentary on the monarch at whose behest it was illuminated.

But what are the illustrations? There are scenes of peasants tilling their farm plots beneath the forbidding walls of a fortified city, a rural dance in the village green, grapes being crushed in the wine press with country men at their work and a gorgeous autumn landscape for the background. To us these illuminated pictures are charming depictions of late medieval life; to the king at whose behest this book was made they were reminders in fascinating tones and story pictures of the everyday life in his thriving land. Many of our histories have pictured the medieval monarch as an autocrat who looked at his peasantry as so much scum of the earth; yet these very men had magnificent art creations like Books of Hours and Gothic Tapestries ornamented with depictions of their underlings and considered the commonplace happenings of contemporary life worthy of being perpetuated in art objects, which were often the greatest of their treasures.

Throughout the ages art in all its branches has been using contemporary life and costuming for design material. Japanese prints form a wonderfully composite picture of Nippon; there are Gothic tapestries which have as their composition woodcutters at work, the donning of armor by knights for a tournament, the excitements of the chase; Veronese painted the Supper at Emmaus as a Venetian State Feast; Persians wove gorgeous-cut velvets with scenes from the hunt and garden parties as the patterns; French Grandes Dames of the Louis XVI period had their boudoir tapestries designed in rural fantasies; New England women in the Colonial period worked needlework pictures that show their families, homes, and daily pursuits. This desire to depict the present has spread to every art and was only governed by the restrictions that result from the technical structure and flexibility of the medium. Such arts as painting, sculpture, tapestry, embroidery, and pottery are more amenable to variability in design than metal work, harness weaving, or furniture making which are confined to line and geometrics.

We admire these creations for they are so charming and so full of interest; also we find them valuable historical and sociological documents, for we have learned a great deal about the modes of life in various periods through these picturings. Our knowledge of Greek furniture is virtually based on the representations found on pottery; we have derived our knowledge of medieval costuming from illuminated manuscripts, tapestries, and enamels. In all of these designs we find an element of strangeness, for styles have changed in the passing of centuries; but to the artists who made them they were representations of the commonplace. He found beauty in his everyday surroundings and handled it so artistically that his compères as well as ourselves gained aesthetic enjoyment from viewing it.

We can do the same. Our civilization, urban life, sports, and the industries present enough of interest to transfer to the stitched designs in embroidery, imprint in the glowing tones of porcelain, or etch in figured glass. Surely if we consider ourselves the artistic and creative equals of a Brussels tapestry weaver or an Athenian potter and if we deem our civilization on a par with Sung China or Renaissance Italy, then we should be just as willing as they were to place ourselves in our arts and create beauty at the same time.

We are casting aspersions on ourselves when we persist in harking back hundreds of years for a design fount. It would be interesting to know what our descendants some centuries from now will think of this era with its dependence on the past for art. We should gain more assurance in ourselves and a confidence that we can translate the commonplace about us into the design of beautiful art objects.

Let us forget the past and see ourselves. In the sampler we can insert the aeroplane, an automobile with sleek lines, the towering cubes in a skyscraper, and the games of a modern child; the figurations in pottery can be conceived in the brown adobe houses and red cliff backgrounds that greet the eye in New Mexico; etched glass can depict the sinuous lines of modern femininity bending with the convolutions of the shaped glass; and in tapestry or embroidery, we can show the teeming city, the color and sparkle in sports. In handling this sort of design we must not lose sight of the exigencies of art and we must not sacrifice beauty for faultless renderings. The camera takes care of exact reproduction and the craft worker should not attempt to make his representations of landscapes or human figures so realistic that the joy in design is sacri-

(Continued on page 47)
Marionettes
A HANDICRAFTER'S THEATER

BY MARGARET MONRAD

MARIONETTES are puppets or small jointed figures which are moved from above by strings or from below by means of slender rods. Closely related to them are the hand puppets.

When and where was the first marionette made? No one knows. They have come to us out of the dim ages of the prehistoric past. When was the first drama enacted? When the cave man came home from his hunt and, while relating his adventures to his family, wielded his stone hatchet or climbed a tree to show how he had escaped the wild boar. So the marionette play came into existence when child or man first fashioned a miniature figure or doll and made it move and talk, imitating those about him.

Marionettes have been unearthed in age-old Egyptian tombs. They are often alluded to in the writings of ancient Grecian philosophers. The oldest traces of marionettes have been found in India, where they were used, as elsewhere among ancient peoples, in religious ceremonies. There is a legend that the wife of the god Siva made a marionette so beautiful that he fell in love with it and endowed it with life. Many are the quaint old tales about them and their puppeteers in China and Japan, Roman Empire, where they became very popular. They taught biblical tales to the illiterate populace in the early church until as late as 1550, when they were driven out from there to the market place, to keep company with Pulchinella, who later became Punch and Judy in England. In the Philosophy Building at Columbia University, there is a marionette which was used in a Christmas crib 200 years ago in Provence.

From Italy, the European home of the marionettes, they travelled all over Europe — to Germany and up through France to England. They were seen by Don Quixote in Spain. Frowned upon by our early puritanical ancestry, it is only of late that these quaint little people have dared take up their

* A collection of Chinese marionettes may be seen at the Natural History Museum of New York City.
Figs. I–III — Scenes from Marionette Play, Beauty and the Beast
abode with us in this country except at times in some out-of-the-way street in the Italian quarter of New York City. However, out West — unknown to most of us — marionettes representing the mystic corn maidens, who gave mankind the seed wherewith to sow, have ground corn between miniature stones for hundreds of years at the great religious festivals of the Hopi Indians. Marionette birds and snakes also take part in the ceremony.

Probably the great English artist and scenic designer, Gordon Craig, has done more than any one else to bring the marionette into its own in the English-speaking world. Here and there it has gripped the imaginations of American artists like Tony Sarg, Remus Bufano, Perry Dilly in the West, and others whose travelling troupes are the delight of all childlike souls.

More and more their educational value as a school project is being recognized. The production of such a miniature play requires all the activities of the real stage where the spacial and literary arts are to be welded into a whole. It opens up to the creative imagination visions of unlimited beauty. Libraries are setting up permanent marionette stages in their children’s departments.

Perhaps the following may be of help to those who are grappling with the problem of how to make a marionette.

The simplest for small children to make is the rag doll marionette. Sew a small longish bag, rounded at the closed end, of cloth, dyed a flesh color, about 4” long when stuffed. Stuff about a third of its length with cotton for the head; tie a string tightly several times around it for the neck; finish stuffing and before closing insert a weight — for instance, a small hinge, a stone, or some shot in lower end. (See Fig. I.)

Draw a pattern of the leg a little longer than the length of head and trunk together. Sew and only stuff half way up, inserting a small weight in the heel. Sew a seam at knees crosswise to keep stuffing in. Attach the open end of the cloth which is left without stuffing (the thigh) to the hip, making it about equal in length to the lower leg.

Make the arms in the same way, slightly weighting the hands (which should reach to the middle of the thigh). For the lower arm, sew and stuff only half way up and sew a seam crosswise at the elbow.

Sew worsted on for hair; paint or sew the features with colored thread. Then dress the marionette. Directions for stringing are given below.

A larger marionette may be made in the same way out of a stocking. A small stick or cotton may be inserted in the upper arms and thighs; but be sure to leave at least 3½” pliable cloth without stuffing at all of the joints.

But a “real” marionette such as may act in more complicated plays given by older children or professionals — how is it made? There are just as many ways as there are people of ingenuity.

A clay preparation such as Permodello, which hardens, has been used for modelling head, lower arms and legs; but, with the exception of very small marionettes, it is too heavy and will not stand much hard usage.

Almost all European marionettes are carved out of wood. This is a delightful and durable medium, but it requires quite a little skill. Plastic wood has been suggested, but — besides being heavy — it hardens so quickly that it is difficult to manipulate.

Nothing can equal papier-mâché in lightness, durability and ease of handling. Besides it costs almost nothing.

Fig. V — Scene from Marionette Play, Beauty and the Beast
THE HANDICRAFTER

Fig. VI — Jim, the Juggler

Materials for a marionette:
Paper towels or newspapers.
Paste (flour and water boiled).
Wire (stove pipe size).
Screw-eyes (smallest size and some about ½"
  diameter).
Soft pine, white wood or basswood, 1¾” x
  2”, 1” x 1” and 1” x ¾”.
Black linen thread or fine fish line.

The play has been decided upon or, better still, written. You know just what each little actor is to do and say and what he is to look like. You have decided upon the size of your actors — somewhere between 15 and 24 inches.

Then make one as the standard, measuring the sizes of the rest in the right relation to it. Suppose it is a villainous pirate and the tallest of the troupe. Make a drawing of him as large as he is actually to be, with as correct proportions as possible, unless you wish a grotesque. If it is a child, make the head larger in inverse ratio to age. (See Fig. II.)

Head — Cut a piece of copper wire and bend it at middle, forming a loop; twist it above loop and measure on drawing the actual size, placing loop on B and bending ends of wire at A; cut ends off as in Figure II. Cut another piece; make a small loop at each end the length of C D; fasten this at right angles to A B at Z, about one-third below A, with a piece of wire. Twist strips of newspaper around the wires at Z until you have a paper ball somewhat smaller than the size of head; around this core paste strips of newspaper or paper towelling to keep it in shape. Then cover several sheets of paper on both sides with paste; tear them up in small pieces and knead to a plastic mass. A little powdered clay or plaster of Paris may be added, but is not necessary. If a smooth surface is desired, soak the paper over night. Then tear into tiny bits and crumble it in the water, strain and knead with paste. With this build up your head just as you would if working with clay. Be sure to make the depression under the brow for the eyes, below the cheek bones and from the chin to the neck. Add on to the brow and to the cheek bones. Continually see to it that the loop B comes out just below the neck and the side loops just above where the ears

Fig. VII — Jim, the Juggler
should be. Build on to the nose with bits of paper and paste, pinching and pulling it into the desired shape. Is he a villain? Add on to it until it is big and crooked. Is he an ogre? Add still more paper and paste till it is enormous! Is she a sweet maiden? Let it remain small. Is she saucy? Give it a tilt upwards! When you get used to the “feel” of your material, your fingers will deftly fashion fat matrons, thin spinster, heroic knights, kings and queens, Mongolians and Africans, greatly to your own surprise and delight. Remember that they are to be seen at a distance, and always exaggerate the characteristic qualities, leaving out the unnecessary or unmeaning details.

When the head is finished, put it on a radiator, stove shelf, or in the sun a few days. When dry, fill in depressions with the finer mass of papier mâché or plastic wood. If it can be improved upon, cut away with a knife and add on where needed. When dry, paint with poster paints and varnish, or, if with oil paints, size it first with whiting and glue. To get a still smoother surface, give it also a coat of zinc white before painting it with oil paints.

For a wig, use theatrical hair, silk, cotton or woolen yarn dyed the color wished for, unravelled hemp rope, or real hair,* according to the character portrayed. Lay out the yarn or hair flat on a strip of cloth and sew a seam at the middle, using a sewing machine (Fig. III). Glue the cloth with the hair to the head, shaping it to fit it.

To make the body, saw off a piece of wood F G about ¾” x 2” for the shoulder piece as long as the width in the drawing of actual size. Round slightly at ends. Saw out a V-shaped piece at the center E for the neck and a small piece at n from under each shoulder. Then bore two holes a and b in the center. Through these pass a wire, first putting it through the loop at the neck and twisting the ends together underneath the wood at M.

Cut out a second piece for the hips somewhat narrower than the shoulders, rounding it at the top. Saw out a piece in the center below at m, where a hinge or a piece of lead should be screwed to weight the trunk. Bore holes for wire through c d and e f. Measure the length of the trunk and nail a piece of muslin from the shoulder piece to the hip piece all around the wood so as to make the trunk the length in your drawing.

For limbs, cut two pieces of wood about 1” x 1” as long as p q. Bore holes for wire at each end. Pass wires from these through c d and e f, fastening the ends together as in Figure II. This makes a very flexible joint. Cut out the lengths of the upper arm and fasten with screw-eyes to the ends of the shoulder-piece.

The lower arms and legs may be made in various ways. The simplest way is to model them out of papier mâché, the length of your drawing, weighting them with a little shot. Drill a hole at the elbow and knee when dry, and attach them to upper limbs by means of a wire joint as described above.

If you wish to be able to change the pose of the hands and fingers, they should be made as follows: Draw the hand the desired size on a board; hammer small nails in the outline wherever the direction is changed. Pass a wire around these nails (Fig. IV). Lift the wire off. Twist the ends for arms, measuring on your drawing, leaving a loop at the elbows; wind the arms with cotton or tape, inserting a small weight at the wrist; then wind the fingers and arms with woolen yarn. Unless flesh-colored yarn has been used, size with glue and whiting and paint. This hand may be bent into any position desired and may hold and carry objects.

In case the limbs are to be seen above the elbow and knee joints, wood is the best medium making a joint as in Figure V (2). Cloth may also be nailed around the wood as in (3) for the joint. The principle is the same for the elbow (Fig. VI).

The foot may be made flexible by boring a hole

*Obtained at the ten-cent store.

(Continued on page 46)
Southwestern Arts

PAUL BERNAT

A REGION of arid plains tilted upwards to merge in the violent crinklings of the surrounding mountains; wide spaces vanishing in the sky line, hills and obstructions resting in a misty green and tan spotted sea of the mesquite, rabbit bush, greasewood, and cactus with colored trailings of the golden yellow palo verde and the rosy bloom ocotillo — that is the Southwest, a land of distances and rioting color. In this region two artistic cultures have fructified; the art of the Pueblo Indians has been "discovered," while Spanish Colonial is just going through the throes of a reawakening.

The desire for artistic expression is apparently universal; man has possessed, since prehistoric epochs, a fair abundance of leisure time; he has experienced the lulling palliative of security; and he is familiar with the play of introspection and thought's outward thrustings. Not only does man want to depict the sun as it registers on the retina of the eye but also in keeping with his socioreligious psychology. As Mary R. Coolidge says in her recent book, "The Rain-makers," — "to the inarticulate human spirit design and decoration seem to be as necessary as food and drink are to the human body. We can but suppose this need of beauty was stimulated by the marvelously, fiercely colored landscape of the Southwest. Just as the solitary mountain sheep often stand on rocky rim or promitory to gaze, so the wild Indian must have come to find pleasure in far, broken horizon, in the play of light and color." The animal world has not been able to reach further than evolutionary modifications in itself to create beauty; though we cannot comprehend the processes and connecting thoughts, we must conclude that the only explanation of brilliant colored feathers on a male bird contrasted with the sombre shades of the female (she must think of inconspicuousness in protecting her young) signifies that birds have had the thought problems of security and beauty to contend with. The human being, however, has taught himself how to mold worldly materials to his imaginative and impressioned convictions.

Cultural history reveals that geography, climate, and the resulting environment exert an influence on the shaping of a culture. In the Southwest there are tremendous contrasts and nature is apt to be violent in her moods. The ever-pressing need is rain so that the crops will be bountiful and food abundant. The whole landscape shows the effect of the dearth of rains and the direness of the storms when they do come. The Pueblo Indians developed an indigenous culture and in speaking of this Henry Smith says that the Indians have found the secret of the adjustment to Southwestern environment. Journeying through New Mexico one catches glimpses of the adobe houses in earth brown color and in severe squatting lines. Man's handiwork melts into nature's and one feels a sense of appropriateness. The Spanish who entered
New Mexico during the sixteenth century in a quest for gold, settling there permanently from the end of the century onwards, built their culture on more or less the same lines as the Pueblos and though they retained many of their European refinements, the groundings of their arts are pervaded with a foundation in the Southwest peculiarities. In the article "New Mexico Backgrounds," Mr. Frank G. Applegate says of these cultures — "Of the two, the Pueblo Indian culture is the less comprehensible to us for there is little in our own background to aid us in appreciating it. The art of the Pueblo Indian shows an undisturbed cultural development through long ages as though it were finished and the last word had been said. The Spanish Colonial art, while it was executed by a people of supposedly higher civilization, seems in contrast both culturally and technically primitive and unfinished." Considering the handicaps that the Spanish labored under, however, their achievement is remarkable. The Indian started with nothing and developed a restricted but perfect culture; the Spanish were thrown into a new environment and obliged to reconstruct their culture to fit the surroundings about them.

The Pueblo Indians do not look on art as one phase in the life circle; it represents an all-pervading part to them and consequently is of serious import in the religious ceremony and in the general conduct of their lives. One duty of the women is the grinding of the corn; this is a laborious task and to relieve the tedium a man stands by the door of the room in which the grinding is in process, playing a fife or singing while the women move the stones in time to the music and sing together. Not only do they carry their art thusly into their daily tasks but also they do not dissociate it from the technical process as we are accustomed to do. Natalie Curtis relates that when she asked a young Hopi composer which came first in his song, words or music, he replied in bewilderment, "I make a song, a song is words and music — all comes together."

We are accustomed to look at art from its aesthetic standpoint; rhythm in line, harmony in color, and beauty of composition are our criterions; and we have paid little regard to esoteric significance. The art of the Indians, however, is fundamentally esoteric and based on the belief that everything in nature has a spiritual counterpart or "Katchina" which determines its form and relation to other things. In maintaining relations with these spirits the Pueblos created their dramatic and other art forms. The formulation of elaborate systems of symbolism has been a concomitant.

All forms in Indian art have been worked and reworked in the projection of symbolism — numbered amongst these are the Eagle or Thunder-bird, butterfly, cloud forms, rain, lightning, whirlwind, and water animals. As the Indian strives to depict the spirit or Katchina, his efforts are directed towards conveying impressions of moving and completed actions rather than realistic portrayals of a pigment in the march of reality. The Hopi have been greatly impressed by the bird's power of flight. To represent this the wing and the feather were adopted as the best symbol of flight. Indians impart their concept of spirit not only to the animate but also to the inanimate and even place it in their own handiwork. Nanpeyo, a famous Hopi potter, while firing her wares talks to the spirits that are dwelling in the shell of the pot and beseeches them to be complaisant so that the pot may not be destroyed in their attempt to escape.
Mrs. Stevenson observed in Zuni Pueblos that small pieces of wafer bread were deposited in bowls 'so that the spirit of the vase might be fed with the spiritual essence of the bread.'

Our lack of comprehension of the spiritual content in Indian art is the reason why it is so alien to us and also why we are not able to appreciate the perfection in their arts. We judge Indian art, dance, and drama by our standards; they do not conform in many particulars and consequently we look at them in a disparaging manner. In his book on the primitive mind, Levy Bruhl devotes attention to this important problem. The West must come to realize that its scheme of philosophy, its art, and its cultures, though great, are not necessarily superior to those of other races and perhaps are unfit for any other peoples but the white man. Psychological differences can be so great that almost no grounds of meeting exist. A willingness to look at things the way another person does would remove a lot of the grief that exists in life and enable us to appreciate the universe in its true light. The fact that Indians conceive of everything as possessing a Katchina, or spirit, means that a tree, bird, or the sun has not the same set of components in their eyes as in ours; as a result they handle these motifs contrary to our practice and if we are to appreciate or understand their art, we must delve into its psychology.

Indian art is symbolic and geometric; yet it displayed few signs of staleness till the inroads of commercialism, and has remained as vitalizing as our arts which are postured in realism. The necessity of keeping within the bounds of natural figuration, of selecting realistic color schemes and line compositions, though offering worlds of design possibilities, has been just as hampering as confinement to symbolic representation on the Indian’s part. The Indians have been successful in symbolism, for they are allowed an interplay of motif and were not subjected to positive forms. Though the Thunder-bird is conceived within certain general lines, every representation of it shows variations; also in the complicated symbolical compositions, details could be shifted about to some degree (except in ceremonies like the sand painting in the Kiva). If one’s language of signs is voluminous enough, there is as much play for the artist in symbolism as in realistic borrowings. In either art mode, discrimination and innate sense of decorative-ness can counterbalance the limitations of style technique.

The interplay of the material world, symbolism, and a strong decorative impulse have given their arts a superb character and great sustaining force. The world of nature has joined with man’s spiritual context to create the art form. Strangely enough Indian art dwells on symmetry, proportioning, and harmony of line and color. The uncertainties inherent in Southwestern climate, the overpowering juggling of nature apparently acted on the Indian and made him crave exactitude

*Furniture, Spanish Colonial — Blanket and Pottery, Indian*
in his arts. Indian symbolism is constructed like the blazed trail of the woodsman; in blazing a trail one always makes certain that the oncoming blaze is within the line of vision at any one mark. Ignorant of this fact, the tenderfoot may find himself lost in a maze but the experienced woodsman can move onwards without hesitating. So with Indian art, to the inexperienced it may seem strange and devoid of thought structure, to the Indian, however, every line has its meaning and he follows it through from motif to motif, reconstructing the story as portrayed in the symbolism.

Through the interplay of various factors, the Pueblo Indians developed extensively but a few arts. The Southwest is poor in many natural resources, the Indians were virtually on the bare subsistence level as a consequence. Because of the lack of metals and wood, their civilization could not advance to any great heights and also they were precluded from the practice of many arts. The incursions of wandering and fiercely depredating tribes, like the Apache and Comanche, proved great handicaps for their flocks of sheep and crops were often taken in raids and the resulting insecurity prevented them from improving their lot in a more permanent way.

In the manual arts, the Indians were proficient in home building, developing what may be called "adobe architecture" which not only in style but also in construction method is the cheapest and most satisfactory for Southwestern conditions, weaving, basketry, and pottery. Besides these manual arts they have displayed ability in music, the dance, ceremonial arrangement, the drama, and correlated arts like sand painting. Since the advent of the Spanish and the permeation of American culture, various other arts have come to the front — included amongst these are silver work, gesso painting, and wood working. The Pueblo Indians evince a receptive mind and, though fostering few arts for their own needs, they have shown remarkable ingenuity in assimilating the ideas of others and have been responsive towards suggestion.

Mary R. Roberts relates a story that reveals their propensities for improvement; it is as follows — "Dr. Edgar L. Hewett, of the American School of Research, while excavating the Pajarito Plateau
at Puye, employed the Indians of San Ildefonso. They became greatly interested in the artifacts found in the ruins, discussing them with the scientists and comparing them with their own products. Dr. Hewett suggested to the women that they try to make pottery as fine as the ancient pieces they had discovered. In spite of the lack at that time of a profitable market for better wares, they gradually perfected the polychrome and black styles which they were making.

The Pueblos have always shown great originality in design; it is common knowledge that most Indian craftsmen will not repeat any pattern no matter what inducements are offered by the trader or collector. Though working without drafts and though arranging motifs through memory or imagination, they are able to execute complicated designs, carry out the details perfectly, and improvise perpetually. It is this trait which enables the Indian to live his art. Every piece is a new problem and neither his hand nor his brain are mechanized.

(To be continued in next issue)
Some Weaves for Upholstery and Curtain Fabrics

BY MYRA L. DAVIS

The weaver who is anxious to make fabrics of quality usually finds that upholstery and curtain materials present difficulties that are hard to overcome. In both of these types it is not sufficient that the fabric be pleasing in color and graceful in design; the fabrics must meet other qualifications which are governed by the uses to which they are put.

Upholstery goods undergo hard usage, yet long wear is expected of them. More particularly they must be woven so firmly that the threads will not pull as the fabric is stretched over the furniture frame, and also the weave must be close enough to prevent the horsehair used in upholstering from pushing itself through. Any experienced decorator experiments with his fabrics to assure himself that they meet these qualifications before he puts them to use. He pulls on the fabric to see if the weave holds its stability; then he will look at it through light to see if it is porous.

Curtain materials present another set of problems. They must be able to break the intensity of light rather than prevent it from filtering through; and in their use for decoration graceful draping is often essential. As sunlight is powerful enough to fade colors, fast dyeing in the yarns is another essential that must not be forgotten.

Many weavers, both in this country and abroad, experiment in these fabrics, and often with successful results. The collection offered here is based on some Danish fabrics woven in the last few years. A friend of the writer was in Denmark recently and gathered a group of weavings that she thought would be of interest to the American hand weaver. From the group six were selected for reproduction. As there were no drafts it was necessary to work out the weaves through experiment; some had the appearance of double weaving or six-harness work, but good duplicates were made on the four-harness loom, and they are presented here. The yarns, especially the warps, are a little different than in the originals. The Danish weavers use finer counts than we do, and consequently their warps are set much closer, running up to sixty and eighty threads to the inch. Not only is this unnecessary but, as a matter of fact, from the opinion of many people we can say that the results are more happy with our coarser warps spaced further apart. The patterns come out stronger, yet the fabrics themselves meet all requirements of their classes.

Sample No. 1 — This is a pattern for upholstery fabrics and possesses an unusually simple motif. As the little squares would become monotonous in large areas, this fabric should only be used for footstools, seats of small chairs, and benches. The sample shown here was worked out with...
Perle No. 20 in gold as warp, set thirty-six threads to the inch. The binder thread is black Perle No. 20, and the pattern thread is black Perle No. 10. In carrying out this pattern, color combinations of two or three shades can be used; but should there be three it is advisable to have two of them close in hue.

Tabby: 1–4, 2–3. This is not a perfect tabby, but is quite all right for a binder.

Treadling: 12 (1–2), 12 (3–4).

Sample No. 2 — This is a curtain material with a delightful pattern and simple but effective border. The weave is sufficiently open for light to filter through, yet there is enough body in the fabric so that it will drape in graceful folds. The sample was carried out with a warp of Perle No. 20 in gold and weft of Perle No. 20 in black, and gold for the borders. The warp is set thirty threads to the inch. Any color combination can be used in this pattern.

Treadling:
1–3, 2–4, 1–2, 3–4 for 3/8 inch with gold.
1–3, 2–4, 1–2, 3–4 for 3/8 inch with gold.
2 (1–3, 2–4), 2 (1–2, 3–4), 2 (1–3, 2–4) with black.
1–2, 3–4, 1–3, 2–4 for 3/4 inch with gold.
2 (1–3, 2–4), 2 (1–2, 3–4), 2 (1–3, 2–4) with black.
1–2, 3–4, 1–3, 2–4 with gold. This is the center of the broad band.

Sample No. 3 — Many people have a preference for upholstery material that has wool yarn in it. Wools denote luxuriousness and also are soft. To meet this demand many upholstery fabrics, especially those of today, are worked out in cottons as warp with wool as the weft. Of such a type is Sample No. 3.

The design in this fabric breaks up into large squares with ziz-zaggy lines of small blocks enclosed. There is sufficient variety in the composition of the pattern to make it suitable for all sorts of upholstery work. The warp is set thirty-six threads to the inch and consists of Perle No. 20 in gold. The weft is Fabri wool in black.

Treadling:

Sample No. 4 — This piece was woven on the tie-up for sample No. 6, and consists of a plain tabby weave. The fabric has a firm body and is suitable for covering small areas where conspicuous or large expanses that are of secondary importance — like the sides and backs of chairs. It is so substantial that it will wear indefinitely. The warp is alternate threads of Perle No. 3 in black and Perle No. 20 in gold. The tabby thread is Perle No. 20 in black. In appearance the fabric is a sweep of black with the gold spottings through it.
Sample No. 6

Sample No. 5 — This sample shows an attractive curtain material that is easy to weave and of interesting enough character to make it a desirable hand-loom product. It can be worked out in mercerized or plain cottons of any color combination. The sample shown here was woven in a 20/2 cotton warp of gold color set thirty threads to the inch; while the weft is 20/2 cotton in red. The plain areas are in a tabby weave; for the open stripes the treadling is as follows:

After a 1-3 tabby shot, weave 1-2, then another 1-3 tabby shot. Beat these three shots closely — leave 3/8 inch space and 2-4, 3-4, 2-4, beat closely, then continue the plain weaving.

Sample No. 6 — This fabric is the most interesting of the group in design and structure. The pattern is pleasing and has a motif so characterful that it is suitable for any type of furniture; in Colonial spirit. The photograph shows some of its charm; in one light it breaks up into stars and squares; in another there are angular circling forms enclosing rectangular motifs; throughout are lights and shadows.

In weaving this piece mercerized threads were used, and the warp was set thirty-six threads to the inch. The warp consists of alternating threads of Perle No. 3 in black and Perle No. 20 in gold, with the first and last thread being Perle No. 3. For the binder a single end of black Perle No. 20 was used, and for the pattern two ends of Perle No. 20 were used. To make one repeat, the following treadling is used; to continue go back to the first treadling direction and thus keep on. The treadling is as follows: 6 (3-4), 3 (2-3), 3 (3-4), 3 (2-3), 3 (3-4), 3 (2-3), 6 (3-4), 6 (1-4), 6 (1-2), 6 (2-3), 3 (3-4), 3 (2-3), 3 (3-4), 3 (2-3), 3 (3-4), 6 (2-3), 6 (1-2), 6 (1-4).

For many reasons Sample No. 3 is worthy of special attention. As was mentioned in the opening words of this article, upholstery fabrics must be sturdy and non-porous; the texture should be firm enough not to pull under ordinary strains. In all of these respects this fabric holds up admirably. Severe tests were made with it, and it held up under all of them.

The secret of its quality lies in the makeup of the warp. A very heavy thread that is unelastic is alternated with a fine thread possessing the same lack of elasticity. The heavy thread supplies adequate body to the fabric, while the fine one closes up the pores that would result from two threads of equal weight being laid side by side. To achieve this it is necessary to set the warp very close, considering the yarn used; any "weaver realizes that thirty-six threads to the inch in Perle No. 3 and Perle No. 20 combined is close. This idea can be utilized with any draft that is suitable for upholstery, and it is a good working basis for making such fabrics.

Though this piece was worked out in mercerized cottons, other yarns such as linens, silks, and plain cottons are suitable. Any choice of color combinations is all right.
Candle Making

BY ELIZABETH J. MICOLEAU

It was an interesting discovery to find, one day, that by melting up odds and ends of dirty, faded, broken candles, fresh ones could be made of every variety of lovely shade. It was attempted first in connection with a Salvage Shop "Renovating Party," and it certainly was pure salvage—no new materials were used, and the equipment was all found in the house. It was a very simple process to start with, although after numerous rather exciting experiences, it evolved somewhat and did go as far as occasionally requiring a new candle for color and later a special kind of braided wicking. There we stopped, as we felt that going into it more scientifically would add expense and spoil the fun.

As to the materials—first collect all your own old candle ends, and those of your friends (who will never use them all for waxing hatpins). Then find a suitable can. It must be as deep as the candle is to be long, and it must be as small around as possible so that too much wax will not be needed. A "Famous Ginger Wafers" can will make an 8-inch candle; a Peak Treau "Golden Puffs" can will make a 10½-inch candle; a can marked "Tensvelt Nicola, Den Haag, Holland," containing rusks, will make a 12½-inch candle.

Next you need some sort of a small stick on which to tie the wick. Wooden knitting needles have an advantage on account of the knot at the end. If you wish a large quantity for a possible party, green bamboo garden sticks are cheap and attractive. For the wick, you can start by using that which comes for candlewick embroidery, braiding it tightly to make a candle that will burn better. Eventually you will feel that you need a regular braided candle wicking, which is, unfortunately, difficult to find.

Now in planning for your color—you can mix your colored candle ends just as you would paints, so that if you have pieces of red, blue and yellow candles you can get any color of the rainbow; and this is the most fascinating part of it all. You will find that you can match absolutely anything—a flower, a vase, the hangings—so that you can get very artistic effects in your house, and change these effects at will. It is, however, the shades that you get unexpectedly that are often the loveliest and the most interesting.

After you have decided what color to start with, begin by melting the wax. It is to be melted directly in the can, put the can in a deep saucepan of water; this saves the can and keeps the wax from getting too hot—if it gets to the smoking point, it is apt to lose its color. The wax will melt quicker directly in a saucepan and may then be poured into the can. You will be glad to find that the dirt and old wicks all sink to the bottom, leaving the wax fresh and clean.

While the wax is melting, tie an end of wicking to one of your sticks, measuring the wick by the can before you cut it off, and allowing about an inch for the candle to grow as you dip it. If you want a number of candles exactly alike, start them at the same time, using a separate stick for each.

When the wax is entirely melted, start dipping your wick. After the first dipping, when the wick has hardened a little, pull it out straight, and
smooth it with your fingers — if the candle starts straight and smooth, it will usually continue so without much shaping. Now dip again; and keep on dipping. When the candle is as large as you want it, it is finished — and here is another advantage of home candle making, any odd size of candlestick can be fitted.

Practice will show you the manner of clipping and shaping your candles. You must dip quickly — or rather, take the wick out of the wax quickly — or the candle will grow smaller instead of larger, particularly at the bottom. Wait long enough between dips — the cooler the candle is the more wax it will take up. Six is a very good number of candles to make at once, because by the time the sixth is dipped, the first will be ready again. Let the candle thoroughly harden before you take it off the stick; and if you like the soft, dull finish, do not handle it any more.

The level of the wax in the can must be about the same all the time so that the whole of the candle will be covered at each dipping. A saucepan of hot wax ready for refilling the can saves time. If there is not wax enough of the shade you are using, pour hot water into the can — hot, but not boiling. Adding boiling water once caused an eruption that lasted until the can was empty and all the wax was on the floor. As a side experiment, add water to white wax in a glass jar. It is very interesting to see what happens. You will see why you can add water without spoiling the candle. You will also see why you have to start with cleaner wax when planning to add water later.

Be careful to keep the wax entirely melted all the time; it will spoil the candle if it gets too cool. If the can sets in a saucepan of hot water while off the stove, the wax will keep hot longer.

If the color isn’t what you want, change it as you make your candle; it is the last three or four coats only that give the final color. This is really the best way to get the right shade. If you have plenty of wax and a number of cans, keep the colors separate and dip from one can to another. You get the same effect as if the colors were mixed in the beginning and you do not lose your original shades.

It seems a shame to give too many directions for candle dipping because the fun is in experimenting one’s self. Just try it!

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**Adjustments**

**By C. J. Burchard**

ONE of the many necessary details that go to make a perfect piece of cloth, the product of Hand Weaving, is the proper adjustment of the "tie-up."

Slipshod methods and inaccuracy in adjusting the lamms and treadles result in imperfect harmony of the working parts, which makes for poor shed of the warp, making "Overshots and Undershots," and I need not stress on what that means to the cloth.

One of the best methods so far discovered by the writer to obtain the same tension on each treadle and each tie from the lamms, is to place a rigid support across the loom underneath the treadles which will hold them firmly in place at the proper height and in proper alignment with each other and at the height they should be left at when the tying has been completed; do the same thing with the lamms, using a clamp or rod, but secure them firmly in line and at the proper height.

Now we are ready to tie; first see that the cords from the lamms to the heddle frames are all even, then proceed to tie the lamms to the treadles in accordance with "tie-up" called for in your pattern.

Commence this operation by tying the cord farthest back first; tie this so that when you put your weight on the treadle it will come down firmly on the support but still be tight enough so that this pressure will put a good firm tension on the drop cord you are tying. Remember your lamms are rigid and the tension is to be on the cord between the lammm and the treadle. Proceed in this manner with each drop that is to be tied to a treadle and repeat until the drops are all disposed of in their proper place.

The result of this, when the supports are removed from the lamms and the treadles, will be very apparent in that the treadles when in a normal position will hang in perfect alignment, will be adjusted high enough from the floor to give good clearance for the shed and, best of all, the heddle frames which are connected with each treadle will move to their respective position in perfect order, with the result that the warp threads thus brought into action will be in perfect alignment.
Bead Technique

BY MARJORIE M. FLASHMAN

It is but a step from the actual manufacture of beads to a consideration of their structural use in fabric and their decorative application to the surface of material. In reviewing the historic processes of ornamental beadwork it would again appear that "there is nothing new under the sun!"

For, as before stated at the beginning of this paper, the ancient Egyptians appear not only to have sewn beads upon their clothes but also to have used them structurally to make netted overtures of gorgeous blue and green faience beads, to enhance their white robes and to embellish their coffins in death. Ladies of the Italian Renaissance beaded their netted caps and yokes with the same technique in similar diamond-mesh pattern.

To return to an earlier style again, it is evident from the mosaic wall decorations, such as the procession of female saints pictured at S. Apollinare Nuovo in Ravenna, that in the late Eastern-Roman (Byzantine) period real stones or beads were sewn to the garments in ornamental border patterns. These were no doubt inspired by the mosaic patterns and by the Champlevé and Cloisonné enamels which echoed the same splendor of color used in the architectural ornament as well as in personal jewels. An example of such use of stones or beads is shown in the beautiful robes upon the figure of Saint Agnes which decorates the apse of the church of her name outside the walls of Rome.

The beauty and richness of this Byzantine color flowers again in the jewels and is reflected in the sewed-on ornaments of the centuries of the renaissance in Italy, France and England. A fifteenth-century portrait by Pier della Francesca shows an exquisite cap patterned with sewed-on seed pearls, from which depends a charming veil edged with clusters of beads in trefoil points.

English custom of the Tudor and Elizabethan period employed quantities of jewels, such as amethysts, sapphires, pearls, diamonds, rubies and semi-precious bead ornaments, and sewed them to every part of the costume, at the neck line, the belt line, on the sleeves, at the wrist, down the front of the skirt, and even on the hats of the men. Such abundant bead decoration points to their obvious manufacture in and importation

Beaded Workbasket, Beginning of 18th Century. Munich Museum

From Pasqueth — Glasperlen- und Perlen-Arbeiten

THE HANDICRAFTER
from the ancient bead centers of Southern Europe, notably Rome, Constantinople and finally Venice. Where, at Murano, flourishing glass factories were established and produced these beads which came to be so plentifully sprinkled over the garments of milord and lady, replacing the real jewels used earlier.

Until the Stuart period in England no extensive use of tiny beads occurs. This type of beadwork is contemporary with the curious stump-work embroidery of the same period, and was sometimes combined with it to introduce small details. They were also used to embellish embroidered panels, caskets, and mirror frames. Bead baskets were made by stringing beads on wire and then twisting these wires around vertical ones that had been fastened in a base at regular intervals. The shape of the basket depended upon the shape of the vase and the number of beads between the vertical wires.¹

Purses were knitted from silk on which the beads had been strung to form a pattern. White satin purses patterned with beads were very much the vogue. These designs were sometimes padded to raise the beads. In the sewn bags the beads were put on one by one with a half cross-stitch, or were laid on

¹Lourdain, "English Embroidery."
From Passauh — Glasperlen- und Perlen-Arbeiten

*Cap and Two Bags — Modern German Work*

From Passauh — Glasperlen- und Perlen-Arbeiten

*Bead Necklaces — Modern German Work*
this as might have been expected. She, being a good New Englander with the proverbial New England conscience, finally confessed to the minister that she had mixed Matilda’s directions for the bag, so that the lack of pattern would reflect discredit upon Matilda’s skill and spoil her chance of winning his affections. The minister being a canny parson scorned both for stooping to such unworthy ruses and selected another girl for his wife.1

Many bags of this period are quite beautiful, although the majority are inclined to be realistic in their design. Two of the bag designs to come are from this period (pages 25 and 28). These are good examples of the two principle techniques—knitting and crocheting—employed at this time.

Most of the modern commercial bead bags are made in France and Germany. The French bags are woven by hand on a loom the size of the bag, and the German ones are made by crocheting the beads onto a net foundation on which a pattern is drawn. These bags are very fragile. The German ones rip very easily, and the warp threads of the French ones break from the weight of the beads. The most satisfactory ones are those knitted or crocheted by hand, as our grandmothers made them.

**Cross-Stitch on Canvas**

Five methods of making bead bags are in use at the present time. No matter what the weak point is in each of these techniques, the designs to be shown in later articles can be executed in all of the following ways.

The first method consists in sewing beads onto a piece of cloth or canvas upon which a pattern has been drawn. This method does not require any particular skill, and is by far the simplest of all, each bead being sewn on individually to the cloth with a very fine needle, No. 11 or 12 preferably. Buttonhole or lampshade twist is the best thread to use. Ordinary sewing silk is too weak and purse silk is too heavy to give a nice effect. Knotting of the thread is to be avoided, as it tends to pull through the cloth and spoil the design. Each bead is sewn on with what is known as the tent-stitch or half of a cross-stitch. (See plate No. 3.) Care must be taken to keep the rows straight if an all-over pattern is being done on cloth. If working on cross-stitch canvas, its mesh will keep the work in even rows. On this canvas a bead is sewn over each group of four threads that form a small square. (See plate No. 3.) The canvas should count from eight to ten meshes to the inch; of course, the size of the bead governs the size of the canvas used. If the beads are large the canvas mesh must be correspondingly large. Sometimes backgrounds are not filled in one bead at a time, but with two to six beads strung on the needle and fastened down at one time. This does not give as smooth and even a background as when they are sewn down one by one. Any of the patterns can be carried out in this way by using a canvas ground and counting the squares in the pattern, each square standing for a bead and a corresponding mesh of the canvas.

The next method explained is in use on most of the commercial bags as well as for the bead passementerie that comes by the yard. In this method the pattern is printed on the fabric to be beaded. Most of the bags are made on black net if the general effect of color is to be dark, and on white net if it is to be light. The design is not limited by the angular form of material which was true of canvas. This permits freer the rendering of forms in outline. Stems, for example, may meander spirally throughout the design without regard to the horizontal and vertical character of the background.

**Chain-Stitch on a Net Foundation**

The net is stretched in a small frame a little larger than the bag and fastened securely to the

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1 Earle, Alice Morse, "Two Centuries of Costume in America."
edge. Then the beads that have been strung on linen thread and wound around a spool are ready to be applied, each color to be used in the bag being strung separately. The beads are held in the left hand underneath the frame, always working from the wrong side. Select the spot that is to be filled in with a certain color bead and push a crochet hook (No. 11) through the material on the edge of the spot of color and catch the thread that the beads are strung on with the crochet hook, pull it through the cloth and fasten it securely. A bead is now held up close to the cloth and the hook is again pushed through it a bead length from the end, a loop of the thread being then pulled up through the cloth. Keep the loop on the needle; again holding a bead close to the fabric, push the hook through the cloth, pick up the thread, pulling it through both the material and the loop which is on the needle. This operation is continued until the design is completely outlined. Then the center is filled in — the beads may follow the outline until the whole space is filled, or they may cross the space in straight rows. The first method is the best it be followed. After all the spots of color are in place, the background may be filled in in any way the worker desires. (See plate No. 4.)

In beading a simple running pattern the line of beads follows the outline of the pattern, filling in the background with beads in rows after the pattern beads are in place. In the case of a design where two or more colors are used, the thread is fastened securely at the beginning and end of each color. One of the disadvantages of this method is that the work must be done from the wrong side and without seeing what is being done. Then, too, the beads are apt to rip off easily if one thread is broken, since this stitch is nothing more nor less than the old-fashioned chain-stitch worked through the cloth instead of into a long string. The following patterns can be executed in this manner by transferring them from the paper to the cloth. This can be done by placing an ordinary transfer carbon paper under the pattern, between it and the material and tracing over the pattern with a sharp pointed stick or pencil. The transfer carbon paper comes in several different colors, green, blue, red, yellow or white, and may be purchased at a good stationery store.

**Method by Single Crochet**

The third method of making bead bags is by crocheting without any foundation material. For a simple plain bag with no pattern in it, the beads should be strung on purse silk that matches them. Sometimes an interesting variation can be secured by stringing a dark bead on a light thread or a light bead on a dark thread. The color of the thread sparkles through in quite a delightful manner.
To String the Beads

More than two bunches of beads should not be strung at one time, as they are very awkward to handle in any larger quantity. The stringing of these beads need not be a laborious task. They can be done very easily and simply in the following way: Remove the end of one strand of beads from a bunch, hold the strand in the left hand; take the end of the purse silk in the right hand and tie the two ends together so that the purse silk makes a loop over the end of the thread that the beads are strung on. (See plate No. 5A.) Then slide the beads down over this very simple knot onto the purse silk. If a bead is reached that will not slip over the knot, break the thread, discard the bead, and tie another knot. Any bead that will not go over this knot cannot be strung with a needle.

To Begin the Bag

When the beads are strung, the bag is started. Next crochet a chain, any number from 50 to 75, depending on the size of bag that you wish. This chain will be the actual width of the bag when finished, forming the central rib of the bottom of the bag from which the work is to be done continuously in one direction, round and round this central rib, growing from the bottom up the sides in tubular form without seams. Use a No. 9 steel crochet hook, keeping the chain very loose. The average beginner crochets too tightly, and may have to rip out the work several times before it is loose enough. So bear in mind that all work is to be loose and pliable. Now for the first row of beads, chain one, insert the hook into the last stitch from the hook, pull through a loop, then push down a bead close to it, throw the thread over the hook and pull it through the two loops that are on it. (See plate No. 6.) This stitch is commonly known as single crochet or half stitch. This operation is continued into the next stitch, pulling up a loop through the chain, pushing down a bead, then pulling a loop through the two stitches that are on the hook. Repeat this the full length of the chain. Put three stitches, with a bead in each stitch, into the last stitch of the chain, then turn the work so that the beads are away from you, and continue down the other side of the chain. (See plates Nos. 5B and 6.)

The Second Row

Continue the work in the top of the last row of single crochet and beads, picking up only one side if one is broken. Continue around and around the bag in this way until the desired depth is reached. Fasten the thread by weaving it back and forth into the fabric. (See plate No. 6.)
TO STRING MORE BEADS

This bag will undoubtedly require more than two bunches of beads, so when the end of the beads already strung is reached, break the thread and add more. Join the ends with a hard knot close to the hook and work them in under the next stitches. Never trim them close, as that weakens the fabric of the bag, since silk knots slip loose easily if cut too short. These plain-colored crochet bags can be varied in texture and pattern by omitting beads to form checks or stripes if desired.

TO SLIT THE BAG FOR A MOUNTING

If the bag is to be mounted with a metal top that opens from a hinge, a different procedure must be followed. The bag is started and worked, as stated before, up to the bottom of the hinge of the bag top. The problem is now to form openings at the sides into which the hinge will fit as into finished sockets. (See plates Nos. 7 and 8.) Without discontinuing the crocheting round and round, which keeps the beads on one side of the bag (the inside so far), turn the bag right side out; locate the two ends of the original central rib chain, and from these end beads follow up every row till the top is reached. This should divide the bag into two equal parts. Mark these points with a contrasting colored thread. Start from one thread; work across in the same way, placing one bead in every stitch until the thread is reached that marks the halfway point. Chain 20 stitches loosely, very loosely. Now take the next stitch in the same way as before, a single crochet with a bead in the stitch. This forms a long loop of chain stitches between two stitches at one edge of the bag. Continue across the other side of the bag until the other marker is reached, and chain 20 in the same way as was done at the opposite edge between the two stitches. Work across the next side with single crochet and beads until the stitch before the chain is reached. Put one single crochet in this stitch with a bead, and another single crochet in the same stitch without a bead. This will form an edge to which you can sew the top when your bag is finished. (See plate No. 8.) Now chain 20 after this stitch. Skip the chain of the row below entirely. Nothing is to be done with any of the chains that occur in each row until the bag is entirely finished. Put one single crochet without a bead into the next stitch at the end of the chain of the row below. Into the same stitch put another single crochet with a bead, and continue across the side with a bead in each single crochet. Repeat this at the other edge. These two chains are made in every row until the depth of the slit is equal to the depth of the top. Finish off with a row of single crochet and fasten the thread. To open up the side

(Continued on page 44)
Gauze Weaving

BY ROBERT F. HEARTZ

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We have read much in recent magazine articles about the use of the "lowly dish cloth" to beautify our homes. We, who have looms, may also weave it, as it is a plain gauze weave, and can be woven on a four-harness loom. To do this, one need not make any great outlay for additional changes and equipment, as only a bar, known as a slackener, and some doup heddles are needed. These can easily be made at home.

The gauze weave is a plain type of weave, and the hand-woven product has this advantage over the "dish cloth material" in that it can be much more firmly woven and has more body to it. It is the strongest and most durable weave known. Gauze weaving was known to the primitive races, and there are several of their crude looms in existence today that are threaded for this weave. It forms an important class of modern commercial fabrics, some of the most common ones being marquisette, cable net, Madras muslin, mosquito netting, grenadine, bolting cloth, etc., and, because of its durability, foundation fabric for automobile tires.

The first project in this weave should be simple. After the basic principles are understood, many other possibilities offer themselves.

The gauze can be woven on a four-harness loom using (2) treadles. It is so drawn in the heddles that, on one shed, every other end is raised, as in plain weaving. On the next shed, those ends that were raised are again raised, but, on the other side of the ends in the down shed. This twisting is controlled by the two front harnesses, called "the doup" and "standard" heddle frames, and in the movement of these heddle frames is the secret of gauze weaving. The type of loom equipped with rollers can be used, but one equipped with jacks or levers will prove much more satisfactory than it would be worth while to make the change if one is planning to weave much of the material.

Doup and Standard

A doup heddle is a string heddle, one half the length of the ordinary heddle, which should be of wire or flat steel. The doup heddle should be made long enough so that, when fastened to the lower bar of the first or doup harness frame, the loop will be long enough to go through the eye of the standard heddle, on the second frame, when both frames are level (Figs. 2 and 3). The doup should be made of hard, twisted or braided fishing line, but must also be very flexible.

Setting Up

For weaving coarse materials, regular carpet warp may be used; set (12) ends to the inch. The weft should be slightly heavier than the warp. The end of the warp should then be drawn
Tie Up and Slackener

Frames 1 and 4 should be tied to the left or No. 1 treadle and frames 1 and 2 should be tied to No. 2 treadle.

Before tying up the warp, an appliance called a slackener must be put in place. It consists of a round rod or lease stick. (A broomstick will do.) It is used to take up the slack caused by the irregular shed of this type of weaving. To insert, the fourth frame is raised and the rod passed through the shed thus made at the rear of the harnesses (selvage ends excepted). A cord is tied to the center of the rod and is passed through a pulley fastened in the center of the top beam of the loom. The loose end of the cord is dropped straight down and tied to No. 1 treadle. The adjustment of the slackener is governed by the individual loom, but, at the beginning, may be set about six inches above the center line of the warp.

The slackener should be balanced at the center, otherwise it will move unevenly and cause an uneven shed. A loose cord may be attached to either end of the slackener and tied to the back through the two back harnesses in regular order for plain weaving, that is, 4; 3; 4; 3, etc. The harness frames are here called "back" (4); "ground" (5); "standard" (2); "doup" (1).

The second or standard frame should be equipped with the same number of heddles, as the back frame and the first or doup frame should have an equal number of doups.

After all of the ends have been drawn through the two back frames, beginning again at the left, we are ready to draw in on the standard and the doup heddles. A doup heddle is put on the doup frame and the loop is carried through the eye of the standard heddle, being drawn through to the left. The fourth or back end is drawn through the loop thus made, and the third or ground end is drawn to the left of the standard heddle and above the back and doup ing end (Figs. 2 and 3). The two ends are drawn together through the same dent in the reed. The next two ends (4 and 3) are drawn through in like manner and so on, for the remainder of the warp. Every other dent of the reed is skipped, otherwise all the warp should be crowded to one side of the loom. There should be a selvage of about six ends on either edge of fabric and these should be drawn 4–2; 4–2; 4–2.

Fig. 2 — Table runner stencilled in color and outlines stitched. Gauze weave
beam, drawing the slackener back about five inches. They should not, however, interfere with the raising and lowering of the rod itself.

After the warp is drawn, the harnesses tied up, and the slackener in place, the warp tieup should be made, but not before. Treadle No. 1 is held down and the warp tied to the front apron, completing the preparations for weaving.

The Weaving

In the harness tieup, it will be noticed that the third harness is not tied up at all, and it follows that the ground ends are always down. The fourth harness is tied to both treadles, and it follows that the back ends are always raised. Since this is so, some method must be devised of twisting the ends by raising the back ends first on the left and then on the right of the ground ends.

So we come to the principles of gauze weaving. On the first shed of the gauze weave, frames 1 and 4 are raised, causing the back ends to be raised on the left of the ground ends (Figs. 4 and 1A). On the second shed, frames 1 and 2 are raised, and the doug heddle pulls the back ends under the ground ends, and the two frames working together raise the back ends to the right of ground ends (Figs. 5 and 1B). This makes the twist that holds the filler in place.

It should also be noted that on the second shed the slackener is lowered and allows the extra play necessary for the back ends to be drawn under and up, without causing any undue strain on the warp.

Since the third frame is always down, it is well to fasten it so, making certain of an excellent shed.

Care must be exercised in weaving not to pull in on the tabby or filling thread, as there is considerable takeup of filling in beating, which will tend to pull in the selvage edges. After the shuttle has passed through the open shed, the filling should be loosened and laid at a diagonal position from the fell of the woven cloth to the reed. Then, in beating up, this slack works toward the tight edge, and does not cause it to pull in.

If the materials suggested are used, a fabric similar to dish cloth will result. The weave may be varied by weaving about two inches plain; 4-2; 4-2, then two inches of gauze, and so on. The striped fabric resulting is suitable for table runners with small figures or border designs. Another novelty effect may be had by drawing some of the doups through to the

(Continued on page 44)
Stories of Old Baskets

BY ELLA SHANNON BOWLES

TUCKED away under the eves of old garrets, redolent with the ghostly fragrance of bunches of dried tansy, sage, thyme, marjoram, pennyroyal and savory, baskets used in the many activities of early American home life are awaiting the hands of the arts and crafts worker and the antiquarian, for the collecting of examples of old-time baskets is quite an unexplored field.

Such a garret in a New Hampshire homestead, to which a daughter of the family has fallen heir, is a gold mine for collectors who are interested in the customs of the past and who wish to begin the study of the historical and artistic significance of the homely handicrafts practised by our forefathers.

"I have one of those rare houses now that has not been vandalized by antique-hunters," the owner of the homestead, who knew of my interest in baskets, whimsically told me, "and it is filled with antiques. I should presume that I have more than fifty old baskets in my possession, all the way from knitting-baskets to those holding cheese curd."

Basketry is one of the earliest forms of handicraft and even antedates that of pottery-making. According to H. H. Roberts, Jr., of the Bureau of American Ethnology, the basket-makers who wove baskets and textiles, but made no pottery, were the first of the cultures preceding the Pueblo people, whose great apartment-cities stand as a permanent memorial to their complicated civilization.

You will recall the fact, too, that the Israelites were commanded to offer unto the Lord as soon as they came into the Land of Canaan the first fruits of the earth in a basket, though there is evidence that this basket may have been made of beaten gold. Baskets over six thousand years old have been unearthed in Middle Egypt, and the ancient Britons were expert in the art of making them. In fact, baskets were produced by all peoples in all centuries. Some shapes like the melon or saddle-basket woven by our southern mountaineers from designs brought from Africa by the Negroes have become international. As for weaves, one expert tells us that there is not a weave of any kind, no matter how intricate, that has not been handed down in perfect form in their basketry by our savage ancestry.

The average person usually thinks of Indian baskets when the word is mentioned. In 1635, William Wood wrote of the baskets made by the squaws in the New World.

"In summer they gather flags of which they make mats for the houses," he said, "and hemp and rushes with dyeing stuff of which they make
curious baskets with intermixed colors and portraiture of antique imagery. The baskets be of all sizes from a quart to a quarter, in which they carry their luggage.'

But the baskets of interest to us are those which were made on farms by our own American ancestors or which were sold by itinerant basket-makers who traveled about from hamlet to hamlet, peddling the news of the day with their wares. Their fathers had learned the art of basket-making in rural England, for you will recall that Dyer, the poet of the country-side, speaks in "The Fleece" of rude baskets woven from the flexible willow.

The basket is a useful article and usefulness was the predominant note in the handicrafts of early America. First, there were the various types brought into being by the needs of the heavy farm work, the baskets for gathering the harvests, for carrying grain to the stock, for bearing the seeds to the planting. Sometimes baskets were used as sifters or for winnowing the chaff from the seed. Not long ago, a collector found, in an old barn in the White Mountains, forms of basketry, crudely woven in huge sheets, which must have been used to sift grains.

Cider, that great drink of early New England, was compounded by pounding apples by hand in wooden mortars, and the pomace thus formed was pressed through baskets. Yes, baskets are associated in our minds with apples, but they are even more closely identified with the history of Indian corn! At apple-bees and corn-husking the basket played an important part.

Did you ever, by any chance, attend a corn-husking, held in the great cobwebbed barn, overflowing with provender for sleek cattle? The corn-husking is nearly a social gathering of the past, yet the custom is kept up in remote parts of New England. During the nineteenth century a corn-husking was as much a part of the autumn activities as the cider-making. Stacks of corn stalks heaped in corners faintly lighted from candles set in tin lanterns, laughter and chaffing from the groups of neighbors assembled to help break the ears from the stalks and strip the husks from the ears, the row of roundbellied pumpkins scooped out for Jack o'Lanterns and set outside the barn to welcome the guests, such were a few of the ingredients of an old-time husking-bee! How the fingers flew, with tongues keeping to the tempo! Hither and thither hurried strong-armed boys bearing baskets to the huge granary, "full to overflowing" with golden ears of corn! The white husks piled up. A red ear, signal for snatched kisses, was found. Now the last basket was sent out, the work was over, and the host announced the event of the evening, the bountiful supper, spread out in the long kitchen of the farmhouse.

In the manner of the Indian basket-maker, the farm craftsman made use of the materials at hand, and so the native hickory, willow and ash were gathered for the weaving of the baskets. Black ash was especially suitable, for it could be easily split into weavers of workable thickness, after
they were hammered out with a wooden beetle. In the South, workers are still making hickory baskets by the same designs and methods as did their fathers and their fathers' fathers before them.

The long pine needles of the South also gave material to the basket-makers. But the products were purely dainty, feminine objects. We are told that one of the first American women to take up the work of weaving needles into baskets was Mrs. McAfee of West Point, Georgia. She first used the needles for this purpose during the Civil War when the lack of raw materials compelled the Southerners to rack their wits to find suitable substitutes for their handicrafts. And do you know what was the first piece of basketry she made? Just a hat for her father, and she sewed it with the last spool of thread the family owned! So, after that, she was obliged to spin her own thread when she wished to sew baskets!

Now that we are speaking of hat-weaving, we might mention the fact that in this country straw-braiding was commenced in Providence, Rhode Island, in 1798, by Mrs. Betsey Baker. Each strand of her first bonnet was woven of seven straws with bobbin set in the openwork, and the dainty piece of headgear was lined with pink satin. Wide field hats were woven from rye straws in New England, and fast flew the fingers of the daughters of large families to provide head-coverings to protect their "men-folks" from the hot sun of the great hayfields.

This craft of hat-weaving also brought in a small bit of spending money for the girls and women, in a day when even a well-to-do farmer's daughter would "hire out" for a dollar a week to earn the money to buy her wedding "chiny." The traveling traders who dickered at the farms purchased palm-leaf in bales, and brought it to the women, who slit and braided it into hats. Then the completed hats were collected, but the makers received but a mere pittance for their work.

Added to the many duties of the girls of colonial days was that of basket-making. Listen to this extract from Abigail Foote's diary, and you will get a slight idea of the occupations which engaged that young lady's attention:

"I fixed a gown for Prue—mended Mother's riding-hood—spun thread—Fixed two gowns for the Welch girls—Spun linen—Worked on cheese basket—Hatch'd flax with Hannah—we did fifty-one pounds apiece—Pleated and ironed—Read a sermon of Dodridge's—spooled a piece—Milked the cows—Spun Linen, did fifty knots—Made a broom of guinea wheat straw—Spun thread to whiten—Set a Red Dye—Had two scholars from Mrs. Taylor's—Carded two pounds of whole wool—Spun harness twine—Scoured the pewter."

The cheese baskets mentioned by Mistress Foote were important household utensils. They were frequently constructed of hickory splits, woven in open simple weaving, that the curd might pass through. Usually they were round, but sometimes larger square baskets were made.

The method of using the basket and "slicing the curd" has been carefully described by Eliza Nelson Blair in "Lisbeth Wilson":

"A wooden tub sat in the entry; and across it were four thin slats, mortised together, each two crossing the other at right angles, the whole named 'cheese-tongs.' Upon them sat a square, shallow cheese-basket, lined with a sheer strainer that held the amber curd. She took a thin, sharp knife, and drew it gently through the soft mass, time after time, streams of whey following each
tow-paths, with the baskets tied under their noses — and are generally used by the residents in that locality. They are also bought by tourists and collectors, not only on account of their curiousness, but because they are exceptionally serviceable, as well as decorative.

Sometimes in old-time basket-making, as well as in all arts and crafts, a name of a craftsman who did his work well lingers. A New Hampshire town history tells of one, Nathan Hunt of Boscawen, who earned his living making baskets and bottoming chairs. And the historian assures us that no better baskets were ever made, for they were strong, evenly woven, and of symmetrical form. What more could be asked of a basket?

I have talked so much about the serviceable basket, may I tell you something concerning the more delicate and ornamental types, so perishable that but few of them remain? A woman who loves and cherishes all the products of the handicrafts of homespun days, a Virginian, born in "The Valley," owns a dainty basket made by her great-aunt, an invalid, who designed a quilt and a basket for each one of her nephews and nieces. This basket is constructed of white oak splits, trimmed down to less than an eighth of an inch in width. It is about five inches in diameter and is kidney-shaped. It was the owner of this basket who first introduced me to the charming little baskets made of honeysuckle vines. Virginia is the only home I have so far found for them.

By-products of basketry are the woven cases found on certain old jugs and flasks. Let me describe one unique example owned by a Massachusetts collector. First, there are two lovely glass bottles, each ten and one-half inches high and of a delightful aquamarine coloring. And

Old Cheese Basket. Winnowing Basket, about 1690. From the Essex Institute Collection
each bottle, by the way, bears the greatly desired pontil mark! The basket which contains them has two compartments, but the reed separating them does not divide the basket all the way. It is lined with straw, not crammed in, but woven. The basket is sixteen inches high and twelve inches wide.

The spread of Berlin work in America set its seal upon basket decoration. Imported baskets were used for the work, and gay garlands and nasegays of flowers were picked out in gaily colored wools. During the early Victorian period the art was as popular as that of beading bags. Just where the baskets were purchased we do not know, but the following advertisement from The Boston Almanac of 1846 may throw some light upon the subject:

"S. Herman, 166 Washington Street, keeps constantly on hand a good assortment of Tin, Wooden, Iron and Shaker Wares, Japan, Canton, French and Common Baskets, Fancy Goods and Toys. Also Manufacturers of Willow Carriages, Cradles and Baskets."

It was during this period, too, that bead baskets and alum baskets were made for household decorations. Alum baskets did I say? Certainly! Look in Godey's Lady's Book for 1859 and you will find that their success depended somewhat upon chance for "crystals will sometimes form irregularly."

"Dissolve alum in a little more than twice as much water as will be necessary for depth of basket," the directions for the popular handcraft of our grandmothers continue, "Put in as much alum as the water will dissolve, using an earthen jar. Boil solution until half evaporated. Suspend the basket from a little stick laid across the top of the jar in such a manner that both basket and handle will be covered by the solution. Set in a cool place where not the slightest motion will disturb the formations of the crystals."

The basket-frame was made of wire or of willow and every portion of it was wound with worsted. The modern craftswoman will find interest in the suggestion for coloring the basket by boiling gamboge, saffron or turmeric in the solution to produce yellow, and logwood for purple.

We must not leave the subject of baskets without speaking of the lovely little cap-baskets in which my lady carried her dainty trifle of silk and lace when "she a-visiting did go." And when she arrived at her destination off came her street bonnet and on went the cap which she had preserved so carefully in her little basket.

A friend of mine recently came into possession of the prettiest cap-basket I have ever seen. It consists of two hollow ovals, each about twelve inches long and nine inches wide, and made of narrow oak splints, interlaced with brown reeds and curving decorations of pale blue. Each section is lined with blue-gray watered silk, banded with purple. When the oval sections are closed together they make a safe nest for a fragile and expensive cap. And this particular cap-basket belonged, if you please, to a certain Miss Anne Grant, who was a famous belle and one of the great ladies of the South. She lived "next door" to Mrs. Jefferson Davis, and was, my informant assured me, her most intimate friend.

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**A Suggestion for Using a Rag Shuttle as a Spool Shuttle**

**BY RALPH A. HALL**

**TAKE** some one-half (1/2) inch dowels and cut them in pieces to fit between the sides of the rag shuttles; bore one-quarter (1/4) inch hole in the center of each piece.

Fit them in the rag shuttle the proper distance apart to fit your shuttle spools with the holes in line.

Obtain some three-sixteenth (3/16) inch machine bolts with thumb nuts to fit and use them to hold the spools in place.

Bore a one-quarter (1/4) inch hole in the center of the side of the shuttle to lead the thread through.

Use a roll of adding machine paper and lay your color scheme out on a strip of it as long as your weaving is going to be (border and center). Attach one end of it to your weaving where it starts and let it roll up with your work. Both ends will be similar and equal.
SECOND method which was much in use
with the early workers is called champlevé,
from a French word indicating that the
ground or field has been cut away. This was used
on large objects of cast bronze, brass or other
metals, such as helmets, shields, horse-trappings,
altar-pieces and articles of like nature, as well as
on the more delicate pieces of jewelry. As a rule,
opaque enamels were used for the larger work, as
its quality of "carrying" at a distance far exceeds
that of transparent enamels. This method is some-
what similar to that of cloisonné, in that cells are
made in which the colors are laid. Unlike the first
method, however, these cells are cut or dug out
his design. In the older work, quite often delicate
patterns were traced on the surface of these wider
flat spaces, adding to the richness of the effect.

As the design is cut out from the solid metal,
some knowledge of modelling, chasing and engraving
is required of the enameler in order that the
foundation may be perfected before the color is
put on. Sharp engraving tools are required for this
work, and they must be kept sharp in order to
preserve the clean-cut lines of the design. The bot-
toms of the cells thus cut out are usually roughened

No. 260 — Silver Jewel Casket. Modern enamel. By Gertrude S. Twichell. Flower design in
softly glowing colors on turquoise ground. Gold and black outline. Metalwork by Milan G.
Twichell. Exhibited at Society of Arts and Crafts, Boston.
in some way for use with opaque enamel, or traced with delicate patterns when transparent enamels are to be used. This breaking up of the surface helps hold the enamel so it does not have so great a tendency to fly off. The whole is a very slow and difficult process, requiring much practice and patience before efficiency is attained. After the design has been cut out of the metal, the enamelling is done just as in the cloisonné process, the hollows being filled with enamel. Some examples of old champlévé enamels in the Celtic room at the British Museum show unusual beauty in their intricate interlacing patterns. The Indian Gallery at the South Kensington Museum also showed a piece held to the light will look like a tiny stained glass window, with the daylight showing through the enamel. This is one of the most difficult of processes, and it is said that for every perfect piece, at least ten are spoiled. This accounts for the seemingly high prices which are asked for articles on which plique-a-jour is used. Contrary to general belief, a backing is not necessarily used in making these, but the enamel is fused in the spaces between the wires and fired and re-fired until the spaces are filled. Of course, in some cases the metal backing may be used and afterward be removed with acids, but this seems hardly to be the true method; the resulting surfaces are not clear and the

No. 141 — Jewel Box. "Garden O' Dreams." Modern enamel, By Gertrude S. Twitchell. Exhibited at the Society of Arts and Crafts, Boston

some very beautiful champlévé enamels of a quite different style from that of other peoples.

Another very similar method is called basse-taille — derived from two old French words meaning low-cut. It differs from the champlévé in having the design carved in low relief below the general surface of the metal, rather than having the pattern brought out by merely lowering the surface evenly. One of the most beautiful examples of this method, one called "lovely in every respect," is the St. Agnes Cup, or Kings Cup, at the British Museum. There seems to be no definite knowledge of where or when it was made, although it has a history of much wandering since its discovery.

One of the most interesting processes of enamelling is that called plique-a-jour, and was supposed to be one of the great secrets of the art. Described simply, it is cloisonné without any metal backing; metalwork cannot be successfully polished to the degree of finish which should be required. Sometimes plique-a-jour enamels are very beautiful indeed, but often the infinite labor required to overcome the technical difficulties does not seem to be justified by the results. Perhaps the best example of this work is a beautiful gold cup, supposed to be Burgundian early fifteenth-century work, which is in the South Kensington Museum. Some beautiful work has also been done by modern workers in France.

It was probably at Limoges in the sixteenth century that the French glass painters discovered a new process, and much of the enamel from that time on was done in this way. It consisted of covering a copper plate on the back with a waste, or counter-enamel for purposes of protection, and putting on the front a white enamel. On this white
and might as well have been done in that medium, or in oil paints. The workers appear to have lost the sense of the jewel-like qualities of enamel, which would seem to demand its being used in a more restrained way, with more regard to the "preciousness" before mentioned. One of the best known of the painted enamels is a beautiful casket at South Kensington, covered with large plaques signed by Jean Limousin. This was made for Anne of Austria in the seventeenth century.

Some exceptional pieces of "Limoges" enamels have been left by Mr. Morgan and Mr. Altman to the Metropolitan Museum in New York. The Morgan collection also shows some Byzantine cloisonné and Limoges champlevé of the twelfth to fourteenth centuries. The Altman collection has some of the earliest painted enamels, dating from the second half of the fifteenth century. The Cleveland Museum has what is said to be one of the finest pieces of Limoges in existence, a twelfth to thirteenth century cross.

As a really fine art, enamelling at Limoges began to decline about 1610, until it was used mostly for snuff-boxes and other trinkets. The Battersea enamels, well made as they are, and very dainty and charming, can scarcely be called works of art. They belong more to the school of china painting, as they manifest too little of the characteristics of the true enamel.

Much of the modern enamel work in this country which is obviously neither cloisonné nor champlevé is called rather vaguely "Limoges," because it uses neither wires nor walls to separate the
colors. It is a modification of the old way, previously described, but with this difference, that as a rule the design is a conventional one, or if a pictorial subject is chosen, it is done in a very broad way, emphasizing beauty of color, and making an appeal to the imagination through the design, rather than attempting to be a detailed realistic painting. The name "painted" is also equally incorrect because the enamels are not painted in the usual sense of the word. The colors are laid on, almost grain by grain, with a small, thin tool, usually metal, rather than with brush and paint, as might be supposed. It has been found that colors can be so carefully handled that plaques of fair size may be completely covered with the various colors laid close to each other, and these will come from the firing with quite distinct and unblurred outlines. It is not necessary to give a separate firing for each color — the entire surface is covered at one time. Afterward additional shadings of color may be laid on in any places that may require them.

Many times the designs are outlined in part with fine gold lines which give an added richness to the effect and heighten the brilliancy of the colors. This is not done to give an imitation of cloisonné, as is sometimes supposed, but is a deliberate part of the color scheme. Lewis Day ("Enamelling"), in speaking of the "Kings Cup," writes: "If the artist had only left here and there so much as a line of gold amidst the color, it would have helped to connect his picture with its gold ground; it would have strengthened the work, and given force to his drawing." Although this cup is basse-taille enamel, the significance of the criticism is obvious.

An enamel in the modern process just described requires anywhere from four to ten or more firings to bring out the desired color effect. Sometimes gold
is used under the colors and sometimes silver; at
other times the enamel is put directly on the copper,
which, of course, has to be specially prepared with
acids. These plaques are for the most part mounted
as panel decorations in silver and copper boxes of
all kinds and sizes, from tiny silver vanities to large
jewel caskets with panels on all five sides. Other
pieces include book-ends and covered bowls with
inset panels, while some beautiful plaques are
used for purely decorative purposes, being hand-

somely mounted in frames with black vel-
vet ground. Also, enamels are being used in an
ten entirely different method, small motifs of
jewel-like colorings giving accent to chased or
etched designs. Hand-blown glass in soft green
or amber may be mounted on a copper base, the tones of the
glass being echoed in softly-glowing color
motifs amid the richly etched cover design.
Again, the deep rich blue of a glass bowl may be
reflected back from gleaming bits of color
introduced into the soft sheen of a delicately-
patterned silver cover,
and repeated in a knob of matching blue. Indeed,
the ‘unlimited variety’ of enamel is bounded only
by the craftsman’s imagination and ability, and
the laws of design.

In an article of this kind, one can give but a
brief glimpse of the history and technique of
enamelling, endeavoring to answer some of the
most frequently asked questions. Those wishing to
look further into the subject will find some very
readable books and articles in the list given below.

These books give detailed descriptions of the best

known of the old enamels, a few of which have been
mentioned in this article.

A most interesting comment on enamels is made
by Alexander Fisher, to whose book we have al-
ready referred, and who has done some of the most
beautiful of modern English work. He writes, that
enamels are ‘for the representation and embodi-
ment of thoughts, ideas, imaginings, and for those
parts of a world which exist only in our minds.’

He further says: ‘I have no doubt, in years to come,
when the art is better understood by artists,
critics, and the public, when their knowledge has increased — to the
same extent, at least, as their knowledge of other mediums — that
there will be established a standard by which
these qualities will be known and appreciated — there is no doubt that
taste is acquired; and
from habit more than from knowledge people regard things as beauti-
ful or not. Consequently it will take years for enamels to be regarded
with right eyes and to receive intelligent critic-
ism.’ The steadily growing interest in

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Crane “The Bases of Design”

In the treatment of blue the Persians always
seem to have been particularly successful, and
their later tile work in the Mohammedan period
is well known, and continues down to the present time.

The love of blue and its use in tile work and
pottery seems to have been general all over the
East; it may be because of the adaptability of the
metallic oxide color to firing, but also it may be
due to the pleasant relief and sense of coolness such
decoration would afford to the eye in courts and
interiors screened from the sun.

The old Nankin blue so famous in Chinese porce-

lace in the so-called Hawthorn pattern was de-
scribed by one of the emperors as the blue of the
sky showing through the white clouds after the
south rain.
Book Reviews

Indian Stories from the Pueblos by Frank G. Applegate (J. B. Lippincott Co.). Price, $3.50.

To present the Indian and his problems in a manner energetic, alive, and truthful is a knotty task. Mr. Applegate has attacked his subject not as a logician, armed with barren facts and endless statistics, but as a painter. Like the artist he presents a complete canvas—not daubings of this and that to show how the picture was conceived and each step in its execution, but a painting adequate in design, perfect in detail.

Mr. Applegate, who by the way is an artist of ability, has given us an understanding glimpse of the Pueblo Indians. Long years of study and genuine sympathy with his characters has gone into his work. Some of his sketches are historical; most are incidents drawn from his intimate contact with these Indians. Through the whole book runs a sympathetic strain. Mr. Applegate feels strongly that the Pueblos have their culture, their religion, their psychology, which, though alien to ours, are worthy of perpetuation. He has not set out to preach, yet in pointed vein and fascinating narration he reveals the Indian and the "why," and subtly makes his appeal.

The depth of study and knowledge which is the basis of this book is hidden beneath its charming and spontaneous style. From every point of view it is thoroughly enjoyable reading.

"Here is the story of the Hopi migration from Mexico hundreds of years ago as it has come down to the Indians of today, and the legend of the Little Fish of San Juan. Here is the story of Estevan the Magnificent, the negro slave who in the sixteenth century went in search of the Seven Cities of Cibola, who was worshiped abjectly by the Apaches, later renowned for their ferocity, and who met a shameful death at the hands of the Zuñis.

In modern times there is the story of Ago Po and the white lady to whom he told legends; of Tabo Salukama, who tried to enlist the aid of the Indian Bureau in securing an eagle for a tribal ceremony; and how Ta Ah married the girl he loved in the white man's way in spite of the fact that his mother had already married him to a girl she had selected according to Indian custom."

The book itself is a delight. The illustrations are in color and are replicas of water colors by young Pueblo artists. Let us hope this is only the first of a long series of books to come from the pen of Mr. Applegate. The Southwest is now coming into its own, and there is no writer more competent to depict its galaxy of color and life.

About Antiques by Ella Shannon Bowles (J. B. Lippincott Co.). Price, $3.50.

A TREMENDOUS subject, no doubt, but in the able hands of Mrs. Bowles it has been turned into the pivot for a group of charmingly written chapters on such subjects as "The Yale Tapestry," "Sandwich Glass," and "Old Pewter."

The author has the facility of writing easily and in a conversational manner. She is exceptionally clever in devoting in all of her books at least one chapter to a subject of which little is known or about which little has been written. We find her at her best in such chapters as the one on "Old Dolls," partly because of the clever reminiscences, and partly because the descriptions of these forgotten doll children brings a humanizing touch to the study of antiques.

Mrs. Bowles, though her work displays deep study and thorough knowledge of her subject, does not fail to infuse herself into her writing. It is this personal touch which has made her book a group of stage settings in which the various arts and their creators become a drama and its actors. Through her own love and understanding of her subject Mrs. Bowles enthuses her readers with the personality of a living past.

Old Patchwork Quilts by Ruth E. Finley (J. B. Lippincott Co.). Price, $5.00.

Interest in patchwork quilts is steadily increasing. Collectors are scouring country farmhouses and city shops for examples of this old craft. The home decorator is securing reproductions for bedroom decoration schemes, and cotton prints with quilting designs add cheer and color to many a kitchen window.

"Old Patchwork Quilts" is an authoritative book, of technical value and interestingly written. It embraces the need of the collector, the craftsman and the casual reader; and satisfies them all. There are hundreds of illustrations of old designs as well as diagrams showing the technique in planning the patches to form the completed pattern and of the quilting itself. The text describes the history of (Continued on page 45)
LOOKING at the CRAFTS

MARJORIE B. AMES, EDITOR

THE Boston Museum of Fine Arts has rendered modern industrial arts and the crafts a service in its recent exhibition of French Textiles and Textile designs. Noteworthy in the collections were the original water color drawings from famous eighteenth century artists and also the "mises en cartes" or detail sketches elaborated for the weaver's convenience in carrying out the designs. The drawings and "mises en cartes" were shown in groupings with the textiles.

This event represents another step forward in the recognition of working crafts as live components of the great field of arts. The Boston Museum tied up this exhibit with retail stores and manufacturers, expending every effort to make it of practical value. The realization is coming to us that an artistic culture depends on the permeation of every strata in one's civilization with its touch. Periods like the eras of Louis XV and Louis XVI were artistically flourishing because as much attention and respect was given a chair or piece of porcelain as a painting. There were arts, not "The Arts" which is a name confined at times to painting, sculpture, and architecture. Proof enough of this is seen in the names of the artists who were the designers of the fabrics on exhibition and the lasting reputation they have. Amongst them are Jean Revel, Phillipe de La Salle, and Jean F. Bony.

In the exhibit, though many of the fabrics were but small fragments, there were definite ascriptions to designers, for many of these men developed their own notions and possessed the same individuality and creative ability that distinguished furniture designers like the Adam Brothers, Sheraton, or Chippendale. Till the advent of Modernism how much chance would there have been of isolating creations in the spirit of any modern designer in an exhibition medley? Probably none at all and therein lies a salient reason why we have displayed so little progress. For the convenience of mass production and the improvement of technical processes; to placate our undue craving for the antique, we have submerged the individual. There have been no design types that can be labelled as new or pertaining to one man or school; just a sameness traceable as far as the vendor alone.

of particular interest in the exhibit were the artist's sketches and "mises en cartes." In the eighteenth century, designers made water colors of their creations and submitted these to manufacturers. The sketches were meticulously done, exuberant in design, and gorgeous in coloring. The bulk of them, in consonance with prevailing fashions, were floral in type though many have animal, landscape, and Chinois motifs. When the sketch was accepted, it was turned over to another specialist who made the "Mise en Carte." This is a squared paper on which the design is so applied that every square represents a thread or group of threads in the warp and woof. The weaver needed this as his guide for most of the weaving was done in homes on the draw loom.

Though the Museum collected these artist drawings and "Mises en Cartes" independently of the fabrics that were shown, many of them evinced close connection and it was interesting to follow the various steps and changes as the fabric evolved from the germ of an idea. The artist with his brush and water colors could be more liberal in his colorings and the sweep of his lines, than the weaver.

1 On the cover is a design by Phillipe de La Salle that was shown in this exhibition. The illustration is used through courtesy of the Museum of Fine Arts, Boston.
with silks and the limitations of a loom. Now that we have had this exhibition of old textiles and their designs why doesn't some museum or enterprising group give us something similar in contemporary industrial arts? All of us will find it interesting. The Boston Museum considers itself fortunate to possess such unusual collections; the Museum that acquires modern ones will be just as happy in its possessions a few decades from now.

**Boston's New Studio Shop**

Anybody interested in handicrafts will enjoy a visit to the studio-shop of the Craftsmen's Guild at 15 Fayette St., Boston. This shop, which is under the direction of Mrs. Chrimes, has a comfortable, homelike atmosphere which is a splendid foil for the delightful things on display.

Both the shop itself and its purposes are interesting. The sponsors were fortunate in obtaining this location for it has lent itself to an unusual decorative treatment — the walls are in cream with a deep blackish tone for high notes; in the partition separating the small office from the shop is an inside bay window that lends a charming touch to the interior. No attempt was made to emulate the policies of the ordinary run of gift shops. The endeavor is to create a pleasing atmosphere in which craft objects can be shown and the work of individuals be displayed to full advantage. Things shown are more for taking orders to be filled by the working craftsmen than for immediate sale. Also a number of the needleworks are for student needs. The Craftsmen's Guild is taking pupils in all types of needlework as well as other crafts and is also planning to supply designs for working so models are kept in the Studio.

A number of prominent craftsmen have cooperated through the submitting of their creations for display. There is leatherwork from Mrs. Cramm and Mrs. Pearce, needlework by Mrs. Stearns and Miss Mabel Cook, enamel work by Miss Twichell, weavings by Mrs. Reed, and a group of red chalk portraits by Mrs. N. I. Amsdel. Numerous other craftsmen are also represented in the things displayed.

It is to be hoped that this shop will prove a successful venture; the craftsman has so few outlets, especially in the semi-private type, that one can only hope this venture and any others of its type will meet with popular favor.

The craftsman who produces a hundred pieces in one design can find a wholesale outlet but the worker who makes individual or special order things has a task in finding a mart for his production.

In filling this gap, the Craftsmen's Guild and other shops on its pattern will be rendering a great service to crafts.

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**A Revival of the Art of Tapestry Weaving**

The recognition of weaving and tapestry and the interest in its revival as a fine art is shown in the new course in the Design and Weaving of Gobelins and Tapestries and Oriental Rug technique being inaugurated this season at the Master Institute of Roerich Museum, 310 Riverside Drive, New York.

This course is to be conducted by Mme. Verita de Bertalan, one of the authorities in this field. Mme. Bertalan's own tapestries, indicating the remarkable manner in which modern creative ideas may be applied to this old art, were shown with great success this summer in Woodstock.

The course will be a practical one, the students designing and executing their own designs. It is hoped in this way to combine the beauty of the ancient tapestry with something of the dynamic spirit of modern life.

In speaking of the course and of her belief in the renaissance of this great art of the ancients, Mme. Bertalan, who has taught hundreds of students in America and Europe, says:

"The past of tapestry weaving was in Europe, but the future for it is in America. Thousands of

(Continued on page 46)
GAUZE WEAVING

(Continued from page 30)
left of the standard heddles and others through to the right, giving strips with a right and left twist. Another suggestion is: 20 ends drawn plain 2–4, 2–4; 20 ends of gauze; 20 ends 2–4, 2–4, combining a plain weave stripe with a gauze stripe. This drawing in, when woven, as suggested for horizontal stripes, results in a checked pattern. Thus one variation suggests another, giving numerous pleasing weaving effects, not to mention those that may be obtained by varying material and color combination.

There is one point the weaver must be careful about in planning the various projects, particularly in this weave, and that is the choice of materials to be used for warps. It is necessary to use a ply yarn with a good twist; cotton linen or silk may be used but the matting propensities of wool render it unsuitable for use as a warp. It can be used as a filler as can almost any kind of yarn when one has a good warp on the loom.

After the finished cloth is cut from the loom, it can be used for the foundation for rugs and chair seats in the Persian knot or French stitch, table scarfs, pillows, unholstery materials, etc., in cross or double cross stitch, in all-over designs, or, if the material has been dyed, or is woven in colors, small designs or border can be used for decorating the various articles as they are made up.

Note. — The tieup above is for a loom equipped with jacks. The tieup for a loom equipped with rollers should be: Treadle No. 1, harnesses 2 and 3; treadle No. 2, harnesses 3 and 4. The slackener should still be tied to treadle No. 1.

All weavings and embroideries illustrated are products of the Occupational Therapy Department at Kings Park State Hospital.

BEAD TECHNIQUE

(Continued from page 26)
so that the top can be sewn, cut each chain of 20 in the center and ravel back to the bag, releasing sufficient length of silk to be woven back into the fabric of the bag to form a firm-finished edge, to which the hinge may be attached. Follow this process with all the chains on both sides of the bag. One side will ravel easily, and care must be taken not to ravel it too far. (See plate No. 7.)

FITTING THE BAG TOP TO THE BAG

Now the bag is ready to sew to the top selected. The top chosen should be from one-half inch to one inch smaller than the bag. A bag that is gathered to a top is always much better looking than when it is stretched to fit the top. If a bag is to be fitted to a top already chosen, be sure that the chain at the beginning is long enough to give this fullness. In sewing the bag to the top, use the
same purse silk that the bag is made of and fasten it securely.

Lining of the Bag

A word of caution about the lining of the bag may be helpful. It should always be a little smaller than the bag, so that the things carried in it will not stretch it out of shape. Never sew the lining to the bag before it is mounted. The lining always wears out before the bag, and should be so put in as to be easily replaced. If sewed to the bag it will have to be ripped off to replace the lining. Line the bag after it has been mounted so it can be replaced easily.

BOOK REVIEWS

(Continued from page 41)

quilting, the materials used, the dyeing, and supplements the illustrations in its directions for the quilter.

Miss Finley knows her subject, and from her research and experience has evolved theories on the basic characteristics of the patterns used, the possible scope of design and the nature underlying their structure and color.

No matter how remote one’s interest in patchwork quilts has been, no reader can quite escape the fascination of that old time art as depicted in Miss Finley’s book.

Paeasant Art in Roumania by George Oprescu

(Albert & Charles Boni, Inc.). Price $3.00 paper bound.

SOME books seem to clamor to be owned — to be left where they can be picked up at leisure, to be studied carefully or admired superficially according to one’s mood — books with such wealth of material and beauty of illustration that they are forever new. Such a book is “Paeasant Art in Roumania.” Included in the “Creative Art Supplement,” this book is attractively arranged, and replete with illustrations. The art student will find the text interesting, for the author is thoroughly cognizant of his subject and presents adequate historical and descriptive material.

For the craftsman the book affords a golconda of design. The hundreds of plates, scattered through it, illustrate all types of peasant design and creation. The Roumanians are of various racial strains and have been caught in a maelstrom of divers cultural movements. Their language is of Latin derivation, and their design shows traces of the Byzantine. Countering these are the outpourings of the Slavic and Oriental strains that have permeated it. From this mixture have evolved peasant arts, attractive and living.

Any one of us would enjoy the raciness of the

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floral forms in their tapestry rugs or the winsome charm in the haphazard motifs of their decorated pottery. These are but two of the arts that are copiously treated and illustrated in this book; all the others are just as interesting, just as amusing and just as rich in their value as designing aids.

A REVIVAL OF THE ART OF TAPESTRY WEAVING

(Continued from page 43)

offices, showrooms, apartments and yachts have to be decorated. The textures of tapestries are what give them their peculiar excellence and what distinguish them above all other textiles, just as other textiles are distinguished by texture qualities that raise them above wood and stone and brick and plaster and procelain and paint and the metals. In other words, tapestry has a more interesting texture than any other material in the world and one capable of expressing more in the hands of the weaver, who understands.'

As the Master Institute has just entered its new home in the new twenty-four story Roerich Museum Building, splendid facilities are available for the inauguration of its work. In addition to the fine studios for its classes, there is a research library to which the students will have access in their

study of designs and in gaining their historical background. An added advantage of the course will be the opportunity for the students to share in the general cultural courses and lectures, concerts and productions given to the students of the Master Institute for the purpose of developing the broad artistic appreciation of each pupil.

MARIONETTES

(Continued from page 9)

above the heel. Into this fasten the pointed end of the leg by boring and putting a wire through, bending the ends (Fig. II). It should be weighted by screwing a piece of sheet lead under the heel, or inserting shot in it if you model it out of papier mâché.

Now it is ready to dress. Do not design the costume as a thing by itself, but always as part of the larger design of the stage scenery and other puppets. Is the puppet to play a leading part? Be sure then to have the costume stand out boldly in strong contrast to background and other figures, at the same time keeping the whole in harmony. Study what color will best express the emotion of your puppets. Keep the costumes extremely simple — as a problem of spacing and color harmony. Dyeing, block printing and batik will be of service here.

Then to the stringing! The controller must be made first. Cut a piece of wood 1" x ¾" about 10" long. Screw two tiny screw-eyes at one end for the hand strings and one at the other for the string to the back. Cut another piece 6" long and screw a screw-eye at each end, to which the strings from the wire loops at the sides of the head are to be attached. Nail a strip of cloth or leather to the ends large enough so you can slip your hand in under it; then nail it to the longer piece at right angles nearer one end and string as in Figures I and VII.

Tip the controller forward and your puppet bows. Tip the cross bar and he cooks his head sideways. Lower the controller and he seats himself.

The leg strings fastened to screw-eyes on end of thighs and passed through holes in the clothes are fastened to a "leg stick" about 6" long with a hole in the center to place it on a nail at B when not in use. To make it walk, tip it alternately, simultaneously moving the puppet forward. If the dress touches the floor, no leg strings are needed. Your lady just glides in. Figure VIII shows a more complicated controller which, by pressing the finger on A, lifts A B and causes the puppet to hang from the shoulder strings, liberating the head strings so that the head falls forward in sorrow or nods.

By experimenting in front of a mirror placed on the floor, you will be continually surprised and amused at the things these little actors can do and
the emotions they can express. If they are to do unusual stunts, your ingenuity will be taxed to provide special strings passing through unsuspected screw-eyes.

"Practice makes perfect," and at last your marionette will be ready to appear in front of the footlights, before the shining eyes and pealing laughter of hosts of children between the ages of five and seventy-five.

EDITORIALS
(Continued from page 2)

ficed. Till the advent of the Barbizon school virtually all landscape painting was done in the studio; yet who can gainsay that Meindert Hobbema or John Constable are not as great as Jules Dupré or Theodore Rousseau who were of the Barbizon fraternity and did their paintings in the open. One can — in fact should — distort, caricature, shift about details, omit, or add in the manipulation of motifs to formulate a design, whether it be the composition in a painting or the repeat of a brocade. Art depends more on the rhythm of masses and lines, on color harmony than realism for its beauty. In Persian hunting carpets, Byzantine ivories, Limoges enamels and Stuart embroideries we find the selecting hand of the discriminating artist; realism has been manipulated to arrive at beauty; so must we labor in putting ourselves into design.

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