A LADY'S BOOK
ON
ART AND EMBROIDERY
IN SILK,
WITH
ENGRAVED PATTERNS.

PUBLISHED BY
M. HEMINWAY & SONS' SILK CO.
MANUFACTURERS OF
SUPERIOR SILK FOR DECORATIVE NEEDLE WORK.
complete book on the numerous kinds of fancy needle-work, but have applied it particularly to simple and pretty stitches in "Art Embroidery."

We use it as an agency in acquainting ladies with M. Heminway & Sons' pure dye silks, which are best adapted to all kinds of embroidery, knitting and crochet work.

Inferior silks are made by other manufacturers and sold in many places at the same prices as "Heminway's." Ladies who are not accustomed to using our silk might not notice, until their work was partly completed, that inferior silk has a dead and rough appearance.

Many pieces of beautiful work have been destroyed simply because the proper precaution has not been taken in selecting materials. Who would not pay a few cents more for "Heminway's" silks when a rich piece of embroidery is to be done? It certainly is the cheapest in the end.

For a proof of the above assertions we refer you to the finest Art Embroidery stores in New York, Philadelphia, or any other large city in the United States.

Our Motto:—Superior goods; fair profit.

Very truly yours,

M. HEMINWAY & SONS SILK CO.,
78 Reade and 99 Church Streets,

EMBROIDERY AS AN ART.

Embroidery means literally "to border"—to decorate the border. It probably originated with stitching, or the sewing together with some kind of thread and needle, and is said to be of very ancient origin.

The history of this art needs no rehearsal; it seems to be a feminine instinct in every nation, each one having its own peculiarity and taste. Turkish embroidery has its own scale of color, its own special designs.

In spite of the ridicule cast upon this style of decoration in olden times, in spite of the delicate nature of the work, embroidery has commanded the serious attention of women everywhere. It is not a "fancy work," it may be the expression of a pure and artistic fancy. It is not alone the art of bordering in stitches, it is the fine art of stitchery, it is a mode of expression.

What does it matter if a lady uses a needle instead of a pen, crayon, or brush? What concern if her figures are more true to a thread than a key-board? Embroidery is a mode of expression, and it demands and wins respect.

Of recent years the art of embroidery has in this country made wonderful progress and is still on the increase. It has commanded the attention of artists and won the respect and admiration of the most cultivated people. It has created a demand for new fabrics, and given an impetus to the manufacture of textile materials that cannot fail to be of the greatest benefit to the country. Moreover, the art has greatly widened its scope and materially changed its methods. It has even attempted to be pictorial. How far it can go in this direction is still under experiment. There may be limitations to pictorial embroidery quickly reached, and beyond which it can never go. Much of the new embroidery is imitative—an experimental feeling after a new and fresher mode of expression. It will find its bearings in due time. Meanwhile, it is of the greatest interest to watch the progress of the new art, to learn what it can do, and to leave to just criticism to eventually define its artistic limits.

With the Wonderful Advance of Embroidery

In this country has grown an equal interest in tapestry, and in considering the new embroidery the new tapestry must first be examined. This work uses the needle as a means of expression. It employs, like embroid-
ery, a fabric for a background or basis, but, unlike embroidery, it employs only one stitch. A piece of the new embroidery may employ many kinds of fabrics and every variety of needle-work. A piece of tapestry has only one fabric as a backing, and the work is a whole, one complete fabric with a uniform surface. The art is practically the stitching into a woven fabric of new threads that pass under the warp and over the filling. The new thread, if of a different color, appears as a line of minute dots upon the cloth, and forming an integral part of the fabric. Having thus the use of a line of color, it is easy to so compose these lines that they shall produce a pictorial effect. In this manner a simple running stitch becomes the basis of the most striking and beautiful artistic effects. To distinguish such work from a more mechanical work it is called hand-wrought tapestry. Such work as now employed is clearly superior to any work done before. It lends itself to the most refined and delicate art, and more nearly resembles painting than any form of needle-work.

The Art of Embroidery

As now carried out in this country is practically the art of stitchery. It is not a thing apart from common sewing, but includes all needle-work. Whatever can be done with the needle is useful, in greater or less degree, in embroidery. At the same time, mere ornamental stitching in colors may not be embroidery at all. It is the art, the design, the drawing, the color, that makes embroidery a success. All else is waste of time and labor. Do anything, but get your effect and produce nature in needle-work.

The Beginner in Embroidery

Will naturally take up first the decoration of toilet and table linen. For this work the patterns are best in outline in one color. Choose simple things, natural objects, sprays of foliage, or outline of flowers, ferns or mosses. A step farther may lead to insects, colored shells, etc. Copy always, as far as possible, from nature. To see how easily natural forms and colors can be reproduced, notice the little Japanese pictures so common everywhere. A mere dash or two of the brush serves to indicate a whole flower. Simplicity is the chief thing in embroidery till we advance to the very highest art, and copy nature directly in some splendid curtain, rich with portraits of a hundred different roses.

G. B.
SINGLE OUTLINE STITCH.

The above illustration explains itself better than any written formula can. The stitch is used most commonly for making stamens and veins of leaves, but never for filling in or shading.
CHAIN STITCH.

This stitch is particularly useful for tacking down the edges of applique work on any article. We have seen it used for outlining, but it makes too coarse a line. The illustration explains how the stitch is made.

Tracing Stitch

Is useful in applique embroidery, and is worked by laying down a line of filoselle or embroidery silk. Secure it with a thread of another color by bringing it up from the back of the material on one side of the embroidery silk and carry it back on the other.

The stitches which secure the silk should be perfectly equal in their distances from each other. Gold cords can be fastened down in the same way, using fine sewing silk to fasten them. When the outline is finished, a small hole should be pierced and the cord cut off and passed through to the other side where it is fastened.
MATERIAL FOR FANCY WORK.

While the various kinds of canvas cloth are more or less used at all times as a foundation for fancy stitches, that class of material at the present day is not very popular. It has been replaced by such goods as sateen, plush, felt, satin, plain cloth, and even Canton flannel is very appropriate for many purposes.

Crewel is the most popular material (with the exception of silk) for decorative needle work. It is a soft, brilliant finished wool, and can be procured in all desirable shades.

The consumption of chenille embroidery and arrasene is greatly on the increase in this country. The best quality comes from abroad, but American goods in arrasene are in some instances preferred on account of the high lustre which the imported goods lack.

This material is not intended for fine work; it is too coarse. It cannot be made to show the artistic effect produced by filoselle and other fine silk threads. We recommend it to beginners because it covers space fast and does not show imperfections as plainly as fine threads do.

Silver and gold tinsel are effective for outline work on plush, but exposure to light has a tendency to change it into a rusty appearance.

Decca floss is a slack twist, glossy silk. It is very delicate, and only persons experienced with the needle can successfully work with it. We recommend it for darning on light weight material, such as pongee silk and transparent silk canvas.

FILO-FILOSELLE.

We wish to call special attention to our Filo-Filoselle, which we have just placed on the market.

This class of silk has had a large sale abroad, and is now becoming quite popular in this country. It differs from regular filling silk, being made of a much finer quality of stock and has greater brilliancy.

It is made only in antique and faded colors, which are most appropriate for etching and best adapted for washing.

We have taken particular pains to dye this silk fast color, and we claim it will bear washing if our instructions on page 20 are followed.

Ladies will please ask for Heminway's Filo-Filoselle, or cheaper brands may be given you by some dealers who do not keep first quality goods.
DOUBLE OUTLINE OR SKELETON STITCH.

This is done in the regular embroidery stitch, making every second or third stitch longer than the others, after which the veins of the leaves are traced in the single outline stitch.

FRENCH KNOT.

This stitch is used for the centre of flowers and for making a raised foundation for such flowers as the golden rod and snowball.

It is made by taking a back stitch, passing the silk twice around the needle and drawing the latter through, at the same time holding the coil down in place.
ILLUSTRATIONS OF DARNING.

This simple stitch can be used in many ways. A design can be outlined and the interior darned, or the interior can be left blank and the background darned. The effect can be changed by using filoselle (split), embroidery silk or etching silk; each will give a different appearance to the work. We have seen this stitch used for making apples, cherries and oranges, and they show to good advantage.
WEAVING OR QUEEN ANNE STITCH.

The above illustrations explain themselves perhaps better than a written formula.

First outline the flower either in Heminway's embroidery, etching or split filling silk. If the work is to be on a fine close woven material, Japan etching silk is best. If on pongee or coarse linen, embroidery silk shows to better advantage.

In weaving, cover each petal with parallel stitches extending from one outline to the other, leaving very small space between each. Cross these at right angles in the regular darning stitch.

The effect may be varied by altering the angle at which the silk crosses.

Embroiderers should have an eye for color, and know something of drawing, and at the same time they should have a love of flowers and cultivate the habit of observing them carefully.

They will then instinctively avoid those which are beyond the range of their art and content themselves with such forms and colors as can be pleasantly rendered in silk.
The above stitch is best adapted for making such flowers as golden rod, Russian snow flower, coxcomb, sumac, marigold and others of a similar nature.

First fill in the flower with French knots of the leading color, then using Heminway’s filling silk (split), pass the needle through from the back, take a double strand of filling silk, pass the fine thread over it and through the work at about the same place the needle came up. As the split silk is tightened, the double silk naturally will fall into place; cut the double silk the length best adapted to the height of the flower. Repeat this stitch until the flower is sufficiently covered to appear well. If the stitches are very much crowded the flower will look heavy.

By varying the size of the French knot which forms the groundwork of the flower, its surface can be raised more or less as desired.
RICK-RACK DAISY.

Crochet the centre with yellow embroidery silk or Heminway’s pure dye knitting silk, and gather in the rick-rack braid as is shown in the cut.

Another style of daisy may be made of felt, the white petals, or points being connected where they come towards the yellow centre.

PLUSH PETALS FOR ROSES, PANSIES, ETC.

The above illustrations represent the three shapes necessary to form a wild rose, using two each of the smaller styles and one of the large.

These petals can be procured at art embroidery stores or they can be cut from the piece and edges turned in. Embroider the centre of the rose with dark olive chenille and knots of yellow brown floss with stitches of a paler shade for the stamens.
SNOW-BALL FLOWER.

Make the foundation in double French knot in double crewel, so as to bring it out in bold relief. Attach to this very narrow silk ribbon, cut in pieces three quarters of an inch long and pointed at the ends. These are crossed and fastened with gold silk.

It is advisable to put in the small pieces of ribbon closely together and fray the ends. The effect produced is quite natural.

We are told by The Art Amateur that the feathery fronds of the wild clematis have undergone the same transformation.

This is much more easily accomplished. Instead of using silk ribbon, arrasene is cut and fastened down by silk stitches, and imitates perfectly the fuzzy effect of the wild flower.

What is commonly known as the wild cucumber, a remarkably luxurious vine with white feathery sprays, is imitated by couching down white arrasene and chenille, thus throwing the spray into marked relief.
KENSINGTON STITCH.

This stitch derives its name from the celebrated art school at South Kensington, England.

It is not, as is generally supposed, simply a stitch of itself, but is a plan of shading and blending in of colors, according to the principles of art, by using a combination of stitches to secure artistic effect. By this stitch or plan only are we able to achieve success and satisfaction in embroidery in natural colors.

Observe in the illustration the position of the needle in taking the stitches in the stem, leaf and flower. Commence the work on the stem of the design, using the outline stitch; the stem made, commence on the leaf at the centre line at the lower part, giving the needle the slant upwards on the angle of the natural veins in the leaf (see illustration); the stitches must be in length proportioned to the size of the leaf. If the leaf be a small, tiny one, one shade of the leaf color is sufficient, in which
case take the stitch from outline to centre; but in larger leaves, where two or more shades are required to fill the leaf, proportion the stitch according to the number of shades used (see illustration).

These stitches must be made of irregular lengths where they are to join and blend with the next shade, so as to more perfectly blend in the shades (see illustration).

In making the flower, commence on the outer edge of the petals, etching up from the centre or circle of flower (as shown in illustration), proportion the length of stitch as in the leaf, shading down towards the centre with darker shades of the flower color, according to the principles of art.

Thus it will be noticed that in this combination we use the outline stitch, the satin stitch, the appliqued stitch (this stitch being caught down at each end by a short blind stitch). By this, nearly all the material is brought on the face of the work without the waste there is in satin stitch, which leaves as much on the back side as on the face of the work), and the French knot stitch, which is used to represent the seeds in the centre, and also, when required, on the ends of the stamens, as in the illustration.

We are indebted to Mrs. L. Maria Cheeny, of Detroit, Mich., for the above excellent representation of Kensington stitch.

SOMETHING NEW.

TRANSPARENT SILK CANVAS TIDY.

The above cut shows a decidedly new idea in a tidy. The body is made
of transparent silk canvas (which can be obtained of dealers in fine art embroidery materials).

Hem the edges about 1½ to 2 inches all around, and have it stamped in some pretty design that will look well worked in the plain outline stitch. Trace the design with Heminway's Japan etching silk, because its size and smooth finish are best adapted to this peculiar canvas.

Fill in all the space between the outer edge of the design and the border with the silk. This "filling in" is done in the regular darning stitch, leaving about three canvas threads between each silk thread. Line the whole with bright gold satin or silesia, and trim with lace. The effect of the gold showing through the canvas is exceedingly pretty, and the tidy itself very handsome. If any lady should have difficulty in finding the transparent silk canvas, the publishers of this book will gladly refer her to persons who deal extensively in it.

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**LADIES' WORK BAG.**

The accompanying can be made of memic cloth, linen, satin, or pongee silk, lined with different colored satin.

It is ornamented with intersecting circles worked in contrasting colors, either darned or woven in silk.

An inch and a half from the top are two rows of stitching, through which pass ribbons used as draw strings.
SILK WORK BAG.

The original from which this engraving is made is about fourteen inches long. The upper portion is a pretty shade of maroon satin, and the lower part a pale pink.

The knot of ribbon at the side represents light blue, pink and olive colors. The silk balls at the bottom being the same combination.

The flowers are made of plush petals (pale blue), and the leaves are worked in silk chenille.

HOW TO WASH SILK ARTICLES.

Wash in luke-warm water, using a very little white castile soap in the water, and avoid rubbing the article as much as possible.

Rinse in clean cold water, and squeeze the article in a clean dry cloth to dry it, never wring it; never use acid or alkali in washing silk. Dry at once, and when nearly dry, place between a dry, smooth cloth with weight enough to press the article smooth.

Always use HEMINWAY’S pure silk.
SCRAP BASKET DESIGN.

Line the bottom and sides with cardinal silesia to within two inches of top, cover the rim with a full puffing of cardinal satin.

Take a band of olive felt eight inches in width and of length sufficient to pass around the basket, cut into six deep points which may be prettily finished by using tassels of different colors. Place on the basket below the puffing from which it is separated by a black band of satin or velvet ribbon catch stitched with colored flosses.

The effect may be heightened by embroidering a small spray of flowers on each of the points.

NOTICE.

There are two kinds of embroidery silk in the market—one is a rough finish silk put up on little cards, the other a smooth, soft silk in skeins.

The former, being wound tight on cards, has a wiry or stiff appearance which ruins it for fine work.

Always use Hemingway's soft finish skein embroidery silk. It is better and less expensive than silk on cards.
TIDY.

This cut shows a tidy of momie cloth, stamped to represent different fruits which are worked in their natural colors with Heminway's silk. Berries are worked in double French knot, the fruits are darned and the leaves in double or single outline to suit the taste.

This class of work is also adapted for splasher, buffet and bureau covers.

CRETONNE APPLIQUE.

Applique embroidery is now very popular. Cretonne work is one of the most simple and is specially adapted to ornamenting linen goods, such as splasher, tidies and table covers.

First have the linen stamped with such designs as will look well with applique. Cretonne designs, such as birds, flowers and children's figures, can be cut out of the piece goods and secured to the linen by a plain chain stitch (see cut, page 9) with Heminway's Japan etching silk. Outline the whole with the same make of silk. It will wash well if washed carefully as all nice silk work should be.
CRAZY WORK.

This design is for the express purpose of showing ladies some of the numerous fancy stitches in silk which can be used in decorating the crazy work so popular at the present date.

The cut represents a patch ten inches square, the pieces being sewed without regular arrangement upon a foundation of Canton flannel.
CRAZY WORK TABLE COVER.

STYLE OF SQUARE FOR ONE CORNER.

This is an exceedingly handsome cover and will repay such as can devote the time necessary to making it.

The body is of a rich claret colored sateen, and measures one and one-quarter yards each way. Felt may be substituted for sateen, but does not look as well. For the border, take four strips of Canton flannel, eight inches wide, and in length corresponding to the sides of the sateen centre as a foundation for the crazy work. On these strips baste pieces of silks, satins and velvets, of all styles and colors, following no regular arrangement. Next ornament the seams with fancy stitches in Heminway's embroidery silks, (notice cut on page 23).

When complete, lay the strips along each of the four edges of the cover, joining neatly at the corners, and finishing top and bottom with
bands of black or yellow satin ribbon, held in place by fancy stitches, then attach gay colored balls to the edges at intervals of four inches, using six or eight different colors which contrast prettily, and repeating the arrangement until the four sides are thus decorated. It is an object in crazy work to use many bright colors, red in especial being most effective. Dull colored silks may be utilized by working them in judiciously with very bright pieces. Scraps of black velvet scattered all through in proximity to the bright reds and paler tints add much to the general effect.

It is a mystery where the idea of "crazy" patch-work originated. It would not be an unreasonable supposition that it opened its eyes of origin among the unfortunate in some of our asylums, for, although partially demented, the majority are neither idle nor lacking in sensible adaptation to various works of skill.

TABLE COVER.

This is very simple, the work being such as can be carried in a small work bag and employed at odd moments.

Make the body of olive green felt, any size desired, having all four of the edges simply pinked. Take four squares of peacock blue plush, on each of which embroider a spray of flowers. Blind stitch these pieces on the four corners of the felt, and your cover is complete. Of course the size of the smaller square must depend upon the size of the cover. An eight inch square of plush to a cover measuring one yard, is about the right proportion.

CRETONNE TABLE COVER.

A pretty and inexpensive cover can be made as follows:

Take nine squares of cretonne, each square measuring twelve inches. Sew these together in the form of a larger square, after which cover the seams with narrow black velvet ribbon, on which is worked a catch stitch in yellow silk. Line with Canton flannel in gray, olive, scarlet, or brownish yellow. The edges may be finished with balls of contrasting colors, with fringe, with white Guipure lace, or with a pinking of felt or flannel set between the outer part and lining.

In making this cover care should be taken in the selection of cretonne. Flower patterns on pale backgrounds—particularly tints of green, pink,
blue and yellow, show to far better advantage than highly colored patterns on black or dark grounds. Two prettily contrasting cretonne should be used, one forming the centre and corner, the other the intermediate squares. Braid may be substituted for the velvet ribbon desired.

THE PANSY.

There is hardly a flower more difficult to manage for decoration than the pansy. The richness of the perfect coloring and the world-wide love given to this flower make us resent any liberties taken with it. It seems utterly out of place to embroider the velvet petaled pansy on crash with crewels. Indeed, it ought not to be done. Nothing less than silk should be used for this flower. If this flower is used on linen, it should be embroidered in outline only, with a darned background. The colors should be as simple as possible on the linen, and the effect conventional and not naturalistic. The outlining of the petals should be in dull reds or red purples, and old gold or gold browns. The eye should be in gold color, with green or red brown French knot in the middle of the gold
eye. The line markings should be in dull red or red purples, and the stems, leaves and calyx of buds can be in dull greens. The background may be darned in shades of old gold. The flowers will be richer embroidered with silks on a pongee or an old gold India silk. Then the markings of the natural flower can be followed, but still with the coloring as simple as possible, using for upper petals the dull red purples and old gold for the three lower ones, with their markings in red purple. Though the pansies be embroidered in but few shades, the natural shimmer of the silk will give lights and shadows and richness to the flowers. The solid flowers are better on silk than on crash, but the darned work is good on both materials, the silk, of course, being richer. If this design is embroidered by anyone accustomed to painting the flower, a good effect will be had by changing the markings and coloring the flowers somewhat, but this needs judgment, and for a beginner, the simple coloring is safest.

RIBBON WORK.

To do this work requires but little instruction other than that required to do embroidery in the Kensington; when the principle of shading is once acquired, the stitches are easily learned; then, taste, ingenuity and
practice will master all styles of art embroidery. Ribbon work is rapidly executed, and it is much admired for home decoration. The flowers and buds only are made of ribbon, i.e., the petals only; the foliage in arrasene, chenille, filoselle or embroidery silk, as the design and materials indicate; for a large design on heavy material, arrasene; on satin for elegance, chenille. For small fine work use filoselle, and embroidery silks for standard work.

If the design, for instance, be a wild rose, two or three shades of ribbon (rose color) are required; this cut in the form of the petals but double the size; run a thread around the edge by which to gather it, draw the thread, and as it gathers turn under, forming the exact shape on the petal as on the design, stitching the gathering to keep it in form, then sew down on the design in blind stitches; then form another and sew down, using the different shades of ribbon as required by the principle of true art. The petals all in, fill in the centre with French knots, and add the stamens same as in the "Kensington."

The opening of buds is represented by ribbon in the same manner, using for the covering the material selected for the foliage. Should the design be daisies, select the colors you desire them, and if large, treat in the same way as the rose, but if small, take the chenille needle and thread it with the ribbon of the width of the daisy petals and draw through the work from the outline of the petal to the centre and fasten the ends on the back with needle and thread. And for poppies, anemone and other flowers having large petals, treat same as the rose.

By permission of L. Maria Cheeny, Detroit, Michigan.

Awarded the highest Premium at the Centennial Exhibition, 1876, and at the American Institute, 1877-78-79-80-81-82.
SQUARE FOR A SILK QUILT.

This handsome design for a silk quilt represents a square of lemon colored satin measuring ten inches, the ground being outlined in the cob-web pattern while the flowers and leaves are embroidered in Ken- sington stitch with split filling silk.
MEDALLION HEAD NO. 1.

(See page 31.)
MEDALLION HEAD NO. 1.

(See page 31.)
MEDALLION HEAD.

The accompanying design is one of the very latest, and is becoming so popular we take pleasure in presenting it and describing the different stitches with which it should be decorated.

The Head itself should be worked in outlining with Heminway's Japan etching silk, in any color to suit the taste, and the space between it and the first circle line, darned with embroidery silk or filling silk of another contrasting color. The apple blossoms and leaves may be worked in Kensington stitch, darning stitch or single or double outline, but we would suggest to embroider the leaves in double outline, (see page 11) filling in the flowers in Kensington as is explained on page 17. Trace the circular lines in single outline with embroidery or floselle, then decorations to be followed in fine etching silk, same color as the head. This style of design is more particularly adapted to tidies, table covers and scarfs.

The art embroidery stores are now displaying many styles of medallion heads, and we are told they are extremely handsome, executed in bright colors on Bolting cloth.

BORDER FOR LAMBREREQUIN.

We are indebted to Messrs. Graham & Co., 26 West 14th Street, N. Y., for the design on the following page. It is decidedly new and extremely handsome, when finished as follows: Flowers in circle to be made in skeleton stitch, (see page 11,)--natural apple blossom colors-- with French knot in the centre. All the space inside the circles to be darned with Heminway's embroidery or floselle. Work the orange buds and stems in Kensington stitch, (see page 17) with filling silk, using appropriate colors. Trace all conventional lines in single outline.
BORDER FOR LAMBERQUIN.
BORDER FOR LAMBCRQUIN.
MEDALLION HEAD No. 2.

This design can be worked on the same principal as Medallion Head No. 1, using proper care in selection of colors.
This design can be worked on the same principal as Medalion Head No. 1, using proper care in selection of colors.
BORDER FOR LAMBREQUIN.
(See page 35.)
BORDER FOR LAMBRÉQUIN.
(See page 35.)
BORDER FOR LAMBREQUIN.

In these days of decorative needle work, no home seems complete without its lambrequins at mantels and windows. These we find at times made of the richest materials and involving much labor, but the careful needlewoman can conjure up articles fully as fanciful and pretty by care in selection of materials, by tasteful designs and neat work. It is of the utmost importance that a good material should be chosen for the ground work. Plush, sateen and felt are all much used, but no one need desire a prettier lambrequin than one we have seen which was made from the pieces of a well worn cloth dress.

Select your colors carefully. In the design on page 34, a ground of old gold is very effective. The cobweb must be outlined in a dark brown, while the leaves and flowers are worked in double outline, the former in shades of green, the latter in a brick red.

Ladies who lack a natural taste for shading flowers will be aided by referring to the items below. The numbers represent the numbers or colors made in HEMINGWAY's embroidery and filling silk. For sale in Art Embroidery Stores in all large cities.

Wild Rose (light), 1659, 1661, 1663.
Wild Rose (dark), 1663, 1665, 1667.
Violet (light), 1477, 1479, 1481.
Violet (dark), 1481, 1483, 1485, 1487.
Pansy (light), 1364, 1366, 1368.
Pansy (dark), 1368, 1370, 1372, 1374.
Golden Rod, 1736, 1740, 1746, 1750.
Daisy, centre with 1740 or 1742.
Daisy leaves, 797, 799, 801, 808.
Mullens, 1055, 1057, 1059, 1061.
Coxcomb, 1669, 28, 25.
Marigold, 1740, 1742, 1746.
Trumpet Flowers, 13, 15, 17.
Trumpet Flowers, 1750, 1752, 1754.
Stems for branches, 413, 415.
Stems for flowers, 642, 644, 646.
Heliotrope, 1477, 1479, 1481.
Cat-tail, 415, 417.
Apple Blossoms, 1659, 1661, 1663.
Clematis, 1659 or 114.
Carnation Pink, 1659, 1663, 1667, 1669.
ODD CHAIR BACKS.

Pretty and odd chair backs are made of squares of linen and of satin. This may seem a strange combination, but the effect is excellent. Where the squares are joined cover the seams with fancy stitches. The satin squares may be left without ornamentation, and all the work be put on the linen ones. Embroidery, or painting or etching is the favorite method employed.

TWO PRETTY SATCHET DESIGNS.

SPECIAL NOTICE.

If by any oversight of ours, or mistake of the printer, there should be difficulty in understanding our explanations, we would thank our readers to consult us personally or by letter; also, if any lady has suggestions to make treating on art embroidery, we would be glad to know them and give her due credit for the same.

We shall not let our interest in this department of our business flag in the least. New stitches and designs are being constantly brought out, and we should not be at all surprised if our book No. 2 would shortly follow this.

Ladies can procure our books and our silk at the leading art embroidery stores.

Very truly,

M. HEMINWAY & SONS SILK CO.,

New York.
Always examine and study the real plant, and know it well before embroidering a flower. This design is conventional, and may be extended for a border of any length for table cover, lambrequin or bureau cover. We suggest embroidering this on a pongee silk or gold colored India silk.

The flowers, buds and leaves may be worked in double outline stitch, in filoselle embroidery silk or Japan etching silk. Make one flower with two shades of golden brown silk; another with two of pink and one with two shades of blue; fill in all the ground with heavy darning in old gold.
TIDY.

The above is the engraving of a dark olive sateen tidy about three-quarters of a yard long and half a yard wide. The spray of wild roses is made exactly the same as that explained in ribbon work article on page 27. The tassels are of olive color silk and quite inexpensive. This tidy is also very pretty used as a scarf for a small stand.
THE REARING OF THE SILKWORM

Is usually left to women; and as the prevailing religion of Asiatic districts is Mohammedanism, and the customs of Mohammedan races prevail regarding the seclusion of the female sex, it is not easy for people of other countries and faith to penetrate to the rooms in which the various processes of cultivating the worm, or manufacturing its product, are carried on. It is equally difficult to secure the adoption of any improvement in the processes where these are lacking in skill.

It may be Inferred from the Difference

in the sizes, color and shape of the cocoons that several varieties of the worm are cultivated, though, owing to cross breeding, it may be now impossible to get at any typical variety. The natives, however, believe they have two distinct species, one of which is white and the other a dark color. The former they call "ipek-kurt," which simply means "silk-worm;" the other is called "Arabi-kurt," or "the Arabian worm." There, however, seems little, if any difference in the forms of the cocoons from these worms. Some of the worms which they cultivate have four periods, and others five; the eggs of the former being larger than those of the latter. Were the original types of these recovered by careful breeding, it is possible some of them might prove valuable.

After the Eggs have been Deposited

by the worms they are gathered, placed in small cotton bags, and hung to the ceilings or walls of the dwellings. When spring is coming round in the districts where sericulture is general, the seed is kept for sale in the bazaars, and apothecaries' and provision shops. The market price of a small thimbleful, in which there are about 2,000 eggs, ranges from
15 to 20 cents. The soundness of the eggs is tested by putting them into water, those which float being rejected as bad, the good ones sinking. Early in April the women put the eggs into smaller bags and tie them next to their body, round the waist or in the arm-pits, turning them over every day until they are hatched. This occurs in about a week. The bags are then opened every day, and the worms that are hatched are turned out upon a tray, until the process is completed. The trays are first covered with a clean cloth. When the worms have been placed in them they are set in a sunny place, but always sheltered from the direct rays of the sun by a covering of gauze. Should the days or nights be colder than usual, the trays are brought indoors and placed on the "sandal" or brazier used for warming the room. The above is a singular way of hatching, and one which can hardly be conducive to the health of the worms, though the heat is a natural heat.

**Next Come the Feeding Processes.**

During the first two stages, the worms are carefully fed with mulberry leaves, picked from the twigs, and as they grow care is taken to give them more room and better places. They are now transferred to shelves placed along the sides of the room in which they are kept in the dwelling. This room is half-darkened, the only light it receives being that which comes in at the door; in this position they are fed three times a day with small mulberry twigs. The old twigs are never removed, the new food being placed on the top, to which the worms gradually crawl upwards out of the dirt and refuse, by which this dirty system is probably prevented from killing them. At last small branches, usually of a dry plant with a bright pink flower, called "ming-hash," or the "thousand heads," are placed on the shelves, so that the worms can crawl into them and spin their cocoons. The life of the worm, taken through all its stages from the egg to the cocoon and moth, varies from about fifty to eighty days.

**As Soon as the Worms Have Finished**

spinning, the cocoons are brought into the court, stripped from the twigs, and spread upon a mat. The largest and best cocoons are then assorted from the mass for breeding purposes. These are selected according to the size and form, color being disregarded, beyond a preference being given to those which have a slightly watered appearance. These are strung together by threads being passed through their outer covering; about thirty are placed on each string, the strings being left
for three days on the cool clay floor of the room, after which they are gathered together, placed into cotton bags, and hung by long nails to the ceilings and walls. On the fourth day the moth emerges, first emitting a fluid, which dissolves one end of the cocoon and permits it to make its exit. The moth has a very brief life. Immediately after emerging copulation commences, after which the female begins to lay her eggs, and continues for seven or eight hours, laying about 400 to 500, of which
about one hundred will prove unfruitful. This task ended, its life closes, after an existence in the butterfly stage of about a day and a half. In the districts of the Caucasus, where the treatment is similar, the moth lives about three days and lays fully 600 eggs. Those cocoons not reserved for breeding purposes are spread upon a mat, upon which they are exposed for several days to the full force of the sun's rays, being gathered together in a heap at night and covered up.

**The Crop of Cocoons is Usually Sold**
in the bazaar in the fresh state, and during the month of June an active trade is carried on, in which the prices realized range from six to twelve or fourteen roubles per pud, or 36 lbs. English. Formerly a custom existed of presenting the first cocoons to the Khan, who in return gave the donor a complete suit of clothes. When Shere Ali Khan came to the throne this custom was observed; but the prince, who had lived all his life among the Kirghiz, did not appear to know what they were, and, thinking they were a rare fruit, deliberately commenced to eat them.

**In these Districts an Ounce of Seed or Eggs,** which the moths from about 1½ lbs of selected cocoons will produce, yield about three puds, or from 108 to 110 lbs. of undried or fresh cocoons. The production of this quantity will engage the labor of a family of four persons in the season, and require the leaf product of about twenty mulberry trees of average size. The ruble being worth about 2s. 6d. English money, the product of three puds, say on the average ten rubles per pud, will amount to between £11 and £12; from which the cost of seed and food for the worms has to be deducted, provided the cultivator does not raise the seed and own mulberry trees himself.

**The Silkworm in Central Asia**
has not escaped the diseases to which it is incident in Europe. Its cultivators have noticed four different kinds to which it is subject, and these they attribute to feeding with wet mulberry leaves, to cold weather, or to the presence of persons who have not performed all the ablutions which the Mohammedan religion prescribes. Microscopic investigations have been made into the origin of these disorders, and the identity of one of them with the fearful disease which now for some years past has decimated the European worm has been established. The fact that the Asiatic silk worm is completely isolated from that of Europe, tends to demonstrate that the disease is the result of overcrowding, want of cleanliness, and other negligences during the breeding season.—*The Warehousemen and Draper's Trade Journal.*
METHODS OF SILK MANUFACTURE.

The various processes which silk undergoes in its transformation from the fine filaments of the cocoon to the heavy texture of silk threads, involve an enormous amount of labor, the cost of which is chiefly represented in the price of silk goods, the mere cocoons being comparatively inexpensive.

The first process is reeling, an art which seems very simple, but which really requires much skill, tact, experience, patience and watchfulness, and on which ingenuity has been lavished. Very numerous have been the inventions of silk reels, by men who did, and not a few by those who did not appreciate the special mechanical difficulties to be overcome.

One of these obstacles is the variable length of silk in the cocoons. No two of the same breed of worms will spin just the same amount. The length varies from 300 to 1300 yards. This variable length necessitates joining the filaments, of which usually from six to ten are reeled together to form a single thread of silk. The cocoons vary not only in length, but in fineness; indeed, different portions of the same cocoon vary greatly in this respect, and in some of the best reeling, the outer third of the cocoon (after the floss is taken off), is reeled by itself, and the inner portion in two separate lots.

The reeling must not be too close to the chrysalis, as that portion of the silk is inferior, and not generally of good color.

There are also imperfect cocoons, soft cocoons, double cocoons, and those in which from disease the worm has perished in its not quite completed cocoon. These can never be reeled completely, and often not at all.

The water in which the cocoons are placed for reeling must not be too hot, or it partially dissolves the silk; nor too hard, or it renders the gum on the silk too brittle.

The quality of most of the Chinese raw silk now brought to this market, is inferior to that of Italy and France, not in the intrinsic character of the stock so much, as the defectiveness of its reeling. The difference in cost is about two dollars a pound.

The raw silk comes to us usually in bales of one hundred and thirty three and a third pounds, and is made up in bundles weighing from eight to twenty pounds each, protected at the corners by floss or waste.
COPY OF AWARD TO

M. HEMINWAY & SONS SILK CO.

INTERNATIONAL EXHIBITION,

PHILADELPHIA, 1876.

The United States Centennial Commission has examined the report of the Judges and accepted the following reasons, and decreed an award in conformity therewith.

PHILADELPHIA, November 13, 1876.

REPORT ON AWARDS.

PRODUCT, SEWING SILK.

Name and Address of Exhibitor, M. HEMINWAY & SONS SILK COMPANY.

"The undersigned having examined the product herein described, respectfully recommend the same to the United States Centennial Commission for Award, for the following reasons:

"A FULL ASSORTMENT of Colored and Black Machine and Sewing Silk.

Perfect in Quality of Material, Color and Workmanship.

"Signed, GEBHARD, Judge."

APPROVAL OF GROUP JUDGES.

CHARLES LE BOUTILLIER, ELLIOT C. COWDIN, A. BEHMER,
CHARLES J. ELLIS, JOHN G. MESSER, HAYAMI.
A. DAXINOS, JOHN L. HAYES.

A true copy of the record.

Signed by FRANCIS A. WALKER,
Chief of Bureau of Awards.

Given by authority of the U. S. Centennial Commission.

A. T. GOSHORN, Director General,
J. L. CAMPBELL, Secretary.
J. R. HAWLEY, President.
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