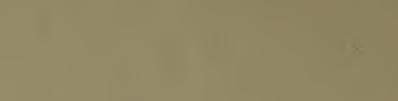
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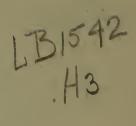


Pasteless Paper Construction

MISS S. E. E. HAMMOND Springfield, Mass.



THE BRUCE PUBLISHING COMPANY Milwaukee, Wisconsin



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INTRODUCTION

Advantages

The advantages of Pasteless Paper Construction are many. It is not a theory but has been tried out in the schoolroom. It is usable. Its requirements are so simple it can be used successfully in the small rural schools as well as in the schools of the large cities. It fills the practical needs which correlate with other school work and home problems. It is permanent. Mice gnaw and destroy pasted work. It is stronger than pasted construction and, therefore, not so easily pushed out of shape. It is possible. No child is too small to use this method. When taught the unit, any child can work out the entire construction without the teacher's assistance. It is provident. It uses the material at hand and uses all of it. It is popular because it is practical, permanent, possible, provident and useful.

Uses

The uses to which this may be applied are varied. In making furnishings we can apply the work to planning doll houses (as chairs, tables, beds, etc.), to simple interior decoration, to illustration of storfes, to studying dramatization and to fitting up miniature theaters.

In making containers for regular school work, we have the indexed spelling book and the folio for spelling, arithmetic, language and other class papers.

For the holiday season there are the sachet, picture mounts, calendars, blotters, etc., to be made.

Equipment

No special equipment is needed. It consists of the regular materials found in every school—the pencil, ruler, scissors, paper and possibly water colors or crayons. The paper used may be tonal construction paper, heavy wrapping paper, or if working out a color scheme in interior decoration, paper tinted with water color.

Method

In presenting this work, show the finished problem, if possible. Teach the folding of the unit giving specific directions. After the pupil has been taught several applications, encourage him to use his own initiative.

Aim

The aim in all this work is to secure accuracy in measuring, either by ruler or eye, and exactness in handling; to develop initiative and invention; to promote pleasure in the work and its correlations; to increase the appreciation of the beauty of simplicity.

Pasteless Paper Construction

The Folded Unit No. 2 В A No. 1 C D No 1 -2--1-- 3 -C No 1 No. 1 No.2 No 2 No Z D 5 -- 6 --4-No.1 No.1 No. 1 No 2 -8--9--7-Plate I.

Cut two pieces of paper No. 1, 4" x 7" and No. 2, 3"x7" in size. Place No. 1 on No. 2 as in Illus. 1, being careful to keep the projecting ends even. Keep the paper flat on the desk when folding the unit and make the fold turn close to the edge of the other paper. Fold down the upper part of No. 2. See A, Illus. 2. Crease well. Turn the paper in the position shown in Illus. 3 and see that No. 1 is pushed down well in the fold. Fold B similar to A in Illus. 2. Turn the paper over and one-quarter of the way around. (Illus. 4.) Fold C and D similar to A and B. Take the papers apart and place them on the desk in the position shown in Illus. 5. The ends of the folded oblongs may be trimmed as shown in Illus. 5. Lay down the lower folded edge of No. 1. (Illus. 6.) Close the side doors. (Illus. 7.) Lay No. 1 down over No. 2. (Illus. 8.) Now, taking these papers in the left hand, tuck the remaining end inside the unit similar to the opposite end. (Illus. 9.)

Note—Be careful in folding all units that the paper folded is close to the edge of the other piece.



Sachet

Plate 2.

Green paper, 1 sheet, 7" square. Red paper, 1 piece, 2" x 6". A--1 piece 4" x 7" B-1 piece 3" x 7" $\left. \begin{array}{c} \text{Unit 3" x 4".} \end{array} \right\}$

Fold the unit as described in Plate 1. When the pieces are in the position as in Illus. 7, Plate 1, lay in one or two layers of sheet wadding and sprinkle it with sachet powder. Then finish folding the unit.

Cut two Christmas trees from red paper and paste one on each side of the unit.

Picture or Calendar Mount

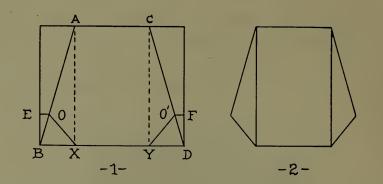




Brown paper, 1 sheet, 9" x 12". A—1 piece $3\frac{3}{4}$ " x 5 " B—1 piece 3 " x $5\frac{3}{4}$ " C—1 piece $3\frac{3}{4}$ " x 7 " Threader.

Fold pieces "A" and "B" for the unit. Measure in from each corner of the longer sides of "C" $1\frac{7}{8}$ ". (See Illus. 1.) Place the ruler at points A and X and fold the paper. In a similar way fold C Y. Draw lines A B and C D. Measure up from points B and D $\frac{3}{4}$ " for points E and F. Place the ruler to points E and F and draw the short lines E O and O' F. Draw lines O X and O' Y. Cut on lines O X and O A; also O' Y and

PASTELESS PAPER CONSTRUCTION



O' C. This is the threader that is slipped through the unit. (See Illus. 2.) Mount a picture or calendar on this.

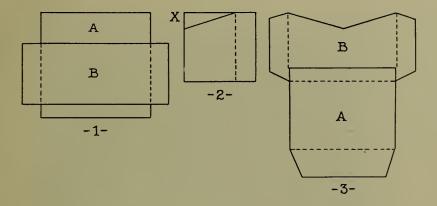
Note—Papers should be different dimensions according to the size of the mount. Trim all threaders a little on one edge so they will slip in easily.



Envelopes

Plate 4.

Brown paper, 1 sheet, 9" square. A—1 piece $3\frac{1}{4}$ " x $6\frac{3}{4}$ " B—1 piece $4\frac{1}{4}$ " x $5\frac{1}{4}$ " Unit $3\frac{1}{4}$ " x $4\frac{1}{4}$ ".



Place A and B as in Illus. 1. Note the uneven widths of the laps of A. Fold the sides of the unit. Take the pieces apart. Hold the short edges of B together lightly and cut out the triangle X. (Illus. 2.) Paste A on B as shown in Illus. 3. Turn in the side laps of B and paste A to these laps.

Double Picture Mount

Dark gray paper, 2 sheets, 9" x 12". A-2 pieces $4\frac{1}{2}$ " x $5\frac{1}{2}$ " B-2 pieces $3\frac{1}{2}$ " x $6\frac{1}{2}$ " C-1 piece $4\frac{1}{2}$ " x 6 "-Threader.

Fold the four pieces of A and B into two units using one A and one B for each unit. The pictures may be mounted by pasting the two upper corners to the units or by cutting an oblong from one side of each unit and placing the pictures in the units. Observe the laws of borders—viz.: In vertical oblongs the sides are the narrowest, the top is next in width, and the bottom is the widest. In horizontal oblongs the top is the narrowest, the sides are next in width and the bottom is the



Plate 5.

widest. Place the two short edges of C together and fold. This is the threader. Slip the two units on the threader.

Triple Picture Mount



Plate 6.

Brown paper, 2 sheets, 12" x 18".

- A—1 piece $3\frac{3}{4}$ " x 12" B—1 piece 7 " x $9\frac{1}{2}$ " C—2 pieces $3\frac{3}{4}$ " x 7 " D—2 pieces $5\frac{1}{8}$ " x $6\frac{1}{2}$ " Junit $3\frac{3}{4}$ " x $9\frac{1}{2}$ ".

- E—1 piece 3³/₄" x 12 "—Threader.

Fold A and B in one unit. Fold C and D in two units, using one of each in each unit. Run the threader E through the first unit folded making the projecting ends even. Fold the ends over toward the front of the unit and crease well. Thread on the two remaining units one on each side. Mount pictures similar to Plate 6.

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				18 9 K.
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Plate 7.

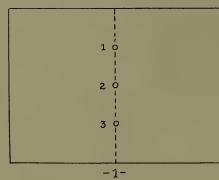
Dark green paper, 2 sheets, 9" x 12". Light gray paper, 3 sheets, 6" x 9". White carpet thread 8". Large eyed needle.

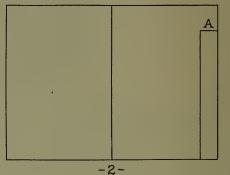
Dark green paper

- A—2 pieces $3\frac{1}{4}$ " x 7" B—2 pieces $4\frac{3}{4}$ " x 6" Unit $3\frac{1}{4}$ " x $4\frac{3}{4}$ ".
- C—2 pieces $4\frac{1}{2}$ " x 5"—Threaders.
- Light grav paper
 - D-5 pieces $4\frac{1}{2}$ " x 6".

Fold the four pieces of A and B into two units, using one A and one B for each unit. Fold the two pieces of C, the short edges together, creasing well. Lay one inside the other. This makes a double threader to reinforce the back of the book. Thread the two units on the double threader. Fold each of the five pieces of D, placing the short edges together. Lay one within the other and sew all together for the leaves of the book, tying the thread on the outside in a hard knot. Now slip the front and back leaves into the front and back units of the book. Mount a picture of a bird on the outside cover. Leave the first leaf for the name of the book and the name of the pupil. Begin mounting the pictures on the second leaf.

Indexed Spelling Book





Blue gray paper, 3 pieces, 9" x 12". Narrow lined quarter cap paper, 10 sheets. White carpet thread 8".

Large eyed needle.

Blue gray paper

A=2 pieces $6\frac{3}{4}$ x 7" B=2 pieces $4\frac{3}{8}$ x 9" C=1 piece $6\frac{3}{4}$ x 8" D=1 piece 4 x $6\frac{3}{4}$ " x $6\frac{3}{4}$ "

Fold the four pieces of A and B into two units, one A and one B for each unit. Fold C and D, folding the 63/4" edges together, creasing well. Place D in C. Thread the two units on the double threader.



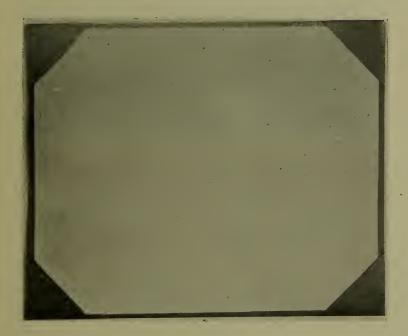
Plate 8.

Fold each piece of quarter cap, placing the short edges together. Lay one inside the other. Knock leaves together so they are even. Open the leaves to the middle. Holding firmly so they will not slip, insert the point of the needle at the fold on the second line from the top through the ten sheets. (No. 1, Illus. 1.) Again insert the needle at the fold on the fourth line from No. 1. Insert it the third time at the fold on the fourth line from No. 2. Now, with the needle threaded, put the needle up through No. 2, down through No. 1, carrying it across the back, bring it up through No. 3 and down through No. 2, being careful that the two ends of the thread are on opposite sides of the long thread. Tie in a hard knot.

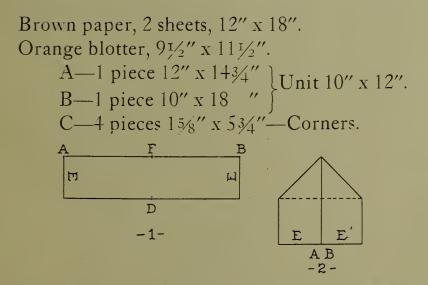
The two outside leaves are to be slipped into the units to complete the binding. The second leaf is for the subject and the name, grade and school of the pupil. On the third leaf begin the indexing. On the first blue line place a dot $\frac{1}{2}$ " from the edge of the leaf. On the last blue line place a dot $\frac{1}{2}$ " from the edge of the leaf. Place the edge of the ruler to the two dots and draw a light pencil line connecting them. Cut on this line and out to the edge of the paper on the blue line. (Illus. 2.) With ink place the letter "A." On the fourth leaf draw a light pencil line from the second blue line along the cut edge of leaf three. Cut on the pencil line and the second blue line to the edge of the leaf. Place the letter "B" on the fourth leaf. "C", "D", "E", "F" and "G" are indexed in a similar way, cutting one line lower each time. The words for "H", "I", "J" and "K" will occupy one leaf, so drop four lines from this in ruling and cutting. "L" and "M" require one leaf, and as this uses all lines but one, nothing is cut away from this leaf. We begin at the top again, but cut on the second line instead of the first as "N" and "O" require one leaf. "P" requires one leaf, and "Q" and "R" one leaf. "S" requires two leaves, so cut two leaves at the same time and letter each "S". "T" and "U" take one leaf, "V" one leaf, "W", "X", "Y" and "Z" one leaf. The grouping of letters may be changed to suit the word list of different grades. This grouping of letters in this illustration is arranged for "IV A".

Slip the outside leaves into the units. The cover design should be kept very simple.

Blotting Pad

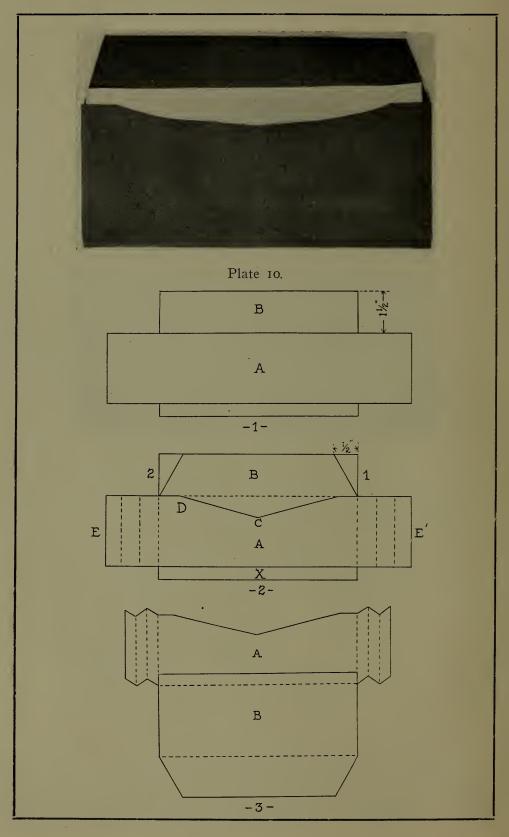






Place "B" on "A" and fold the unit. Mark the middle points F and D on the long edges of each piece of "C." (Illus. 1.) Fold edges A F and F B to points F

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and D. (Illus. 2.) Slip the ends E and E' in the corners of the unit. Slip the corners of the blotter into the corners of the pad.

A piece of tagboard 10" x 12" may be placed inside the unit if a stiffer pad is desired.

Clipping or Spelling Folio

Dark blue paper, 1 sheet, 9" x 12".

A—1 piece $3\frac{1}{4}$ " x 12" B—1 piece $5\frac{1}{2}$ " x 8" $\left\{ \begin{array}{c} \text{Unit } 3\frac{1}{4}$ " x 8".

Lay "A" on "B." (Illus. 1.) Fold the sides the same as in folding the unit. Measure in on B $\frac{1}{2}$ " from the opposite corners and cut off triangles 1 and 2. (Illus. 2.) Fold the ends of A into three oblongs one $\frac{1}{2}$ and two 3/4" wide. (Illus. 2.) These give flare or spring to the ends of the folio. Place the short edges of A together, holding lightly, cut on the line C D. Point C is $\frac{1}{2}$ " in from the edge and point D is $\frac{3}{4}$ " from the fold. Paste B to A. (Illus. 3.) Fold down the ends of A and paste B to the $\frac{1}{2}$ oblongs.

Two - Wheeled Cart

Blue paper, 3 sheets, 9" x 12". Orange paper, 1 piece, 3" x 12". Tag board, 1 piece, 3" x 12"." Two black-headed pins. Blue paper $\begin{array}{l} \text{A-2 pieces 1 } & " \ge 9 & " \\ \text{B-2 pieces 1 } & " \ge 9 & " \\ \text{B-2 pieces 2} & \frac{1}{2}" \ge 5 & \frac{1}{2}" \\ \text{C-2 pieces 1 } & " \ge 4 & \frac{1}{2}" \\ \text{D-2 pieces 2} & \frac{1}{2}" \ge 2 & \frac{1}{2}" \\ \text{E-1 piece 3} & \frac{1}{2}" \ge 5 & \frac{1}{2}" \\ \text{E-1 piece 4} & \frac{1}{2}" \ge 5 & \frac{1}{2}" \\ \text{F-1 piece 2} & \frac{1}{2}" \ge 9 & " \\ \end{array} \right] \\ \begin{array}{l} \text{Bottom 2} & \frac{1}{2}" \ge 5 & \frac{1}{2}" \\ \text{Bottom 2} & \frac{1}{2}" \ge 5 & \frac{1}{2}" \\ \end{array}$ G-2 pieces 1 " x 9 " H-1 piece $4\frac{1}{2}$ " x $5\frac{1}{2}$ " I -1 piece $2\frac{1}{2}$ " x $7\frac{1}{2}$ " Orange paper 4-2" circles-Wheels. 4 pieces $3\frac{4}{8}$ " x 6"-Handles. 2 pieces $3\frac{4}{8}$ " x 3"-Leg. Using A and B, fold the two side units. Using C and D, fold the two end units. Using E and F, fold the bottom unit.

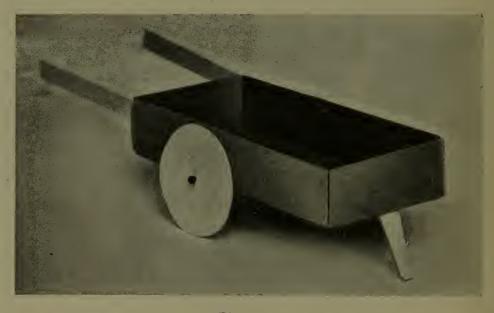


Plate II.

Thread the two threaders G through the two end units seeing that the ends extend evenly. Fold over the ends and crease well. Put the ends of the threaders into the ends of the side units. Thread the two threaders H and I into the bottom unit. Fold over the extending ends of these and crease well. Slip these ends into the sides and ends of the body of the cart.

Paste the two circles, the two pieces $\frac{3}{8}$ " x 6" and one

piece $\frac{3}{8}$ " x 3" on tag board. Cut these out and paste the corresponding piece of orange paper on the opposite side of the tag board. The wheels are fastened to the wagon by the black-headed pins which are punched through the centers of the wheels and on into the bottom of the bed a little to one side of the middle of the edges. Slip the handles into the ends of the sides nearer the wheels. Bend the leg 1" from the end at a right angle, \neg and slip the long arm into the bottom of the bed at the opposite end from the handles.

Christmas Box

Medium blue paper, 2 sheets, 12" x 18".

Light blue paper, 1 sheet, 9" x 12".

A—2 pieces medium blue 11/2" x 9" Sides 11/2" x 6". B—2 pieces light blue 21/2" x 6" C—2 pieces medium blue $1\frac{1}{2}$ x 6" Ends 11/2" x 3". D—2 pieces light blue $2\frac{1}{2}$ x 3" E—1 piece medium blue 5 " x 6" Bottom 3" x 6". " x 9" F—1 piece light blue 3 G—1 piece medium blue $6\frac{1}{4}$ " x $6\frac{1}{4}$ " Top $3\frac{1}{4}'' \ge 6\frac{1}{4}''$. H—1 piece medium blue $3\frac{1}{4}$ x 9 " I —1 piece light blue 3 ‴ x 6 I —2 pieces medium blue $1\frac{1}{2}$ x 9" K—1 piece medium blue 6 " x 6" Threaders. L—1 piece medium blue 3 " x 9" M—1 piece medium blue $4\frac{3}{4}$ " x 6"

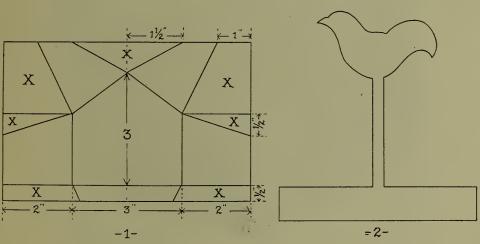
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Plate 12.

Using A and B, fold two side units, using one medium blue and one light blue in each unit. Each unit of the box is composed of a light and a medium blue. Using C and D, fold the two end units. Using E and F, fold the bottom unit. Slip the threaders J through the two end units. Keep the extended ends even. Fold down these ends on the light side of the units and crease well. Slip the ends of the threaders into the ends of the side units, being careful to keep the light paper inside. Slip the two threaders K and L through the bottom unit, at right angles to each other, being careful to fold down all four ends of the threaders on the light side of the unit. Crease well. Slip these ends into the sides and ends of the box. The light paper forms the lining of the box. Using G and H, fold the top unit. Put a little paste on the edges of the two ends and on one side of the top lining I and place it on the top unit, leaving $\frac{1}{8}$ " margin on one side and the two ends. Slip the threader M in the top unit into the side that has no margin. Fold the extended end over on the light side and crease well. Slip this end in one side of the body of the box.

Note—Be careful in all foldings of units that the paper folded is close to the edge of the other piece.



Barn

Brown paper, 3 sheets, 9" x 12". A—1 piece $4\frac{1}{2}$ " x 5 " B—1 piece 3 " x $6\frac{1}{2}$ " C—4 pieces 2" x $5\frac{1}{2}$ " D—4 pieces 3" x $4\frac{1}{2}$ " E—1 piece $4\frac{1}{2}$ " x 12"—Threader. F—2 pieces $4\frac{1}{2}$ " x 7"—Ends.

Using A and B, fold the unit for the base. Using C and D, fold four units for the sides and the roof. Thread the base unit on the threader E, pushing the threader just to the opposite side, not through the unit.

Fold the threader over. Crease well. Place the four units for the sides and the roof on the threader, folding and creasing each time a unit is put on. Slip the extended end of the threader into the other side of the base.



Plate 13.

Place the short ends together of F and fold. Lay out one piece of F. (Illus. 1.) Cut out pieces marked "X". Fold on the lines. Trace around this piece on the second piece of F and cut it out. Slip the five ends into the five units. Cut the weather-vane (Illus. 2), and slip the base into the unit at the top of the roof. Windows and doors may be cut from contrasting paper and pasted on.

Dining Room Chairs

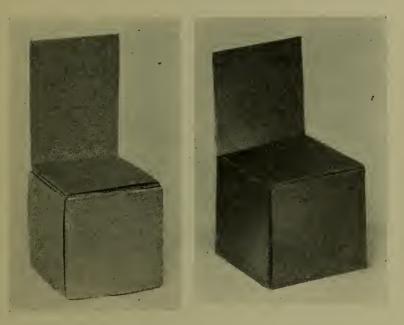


Plate 14.

Brown paper, 1 sheet, 6" x 9". A—8 pieces $1\frac{1}{2}$ " x $2\frac{1}{2}$ "—Units $1\frac{1}{2}$ " x $1\frac{1}{2}$ ". B—2 pieces $1\frac{1}{2}$ " x 4 "—Threaders. C—1 piece $1\frac{1}{2}$ " x 6 "—Back.

Using A, fold four units. Slip the two threaders B through two units, leaving equal ends on each side. Fold the ends of the threaders down on the units. Crease well. Slip the two remaining units on each end of one threader. You now have three units on one threader. Slip the two ends of the second threader into the sides of the end units of the three units. This forms three sides and the top of a cube. Place the short ends of C together and fold. Crease well. Slip the two ends into one of the middle units and at the open side. Bend the rest of this double paper up for the back of the chair.

Dining Room Table



Plate 15.

Brown paper, 2 sheets, 9" x 12". A-2 pieces $4\frac{1}{2}$ " x $6\frac{1}{2}$ "-Top $4\frac{1}{2}$ " x $4\frac{1}{2}$ ". B-2 pieces $2\frac{3}{4}$ " x 5 "-Base $2\frac{3}{4}$ " x $2\frac{3}{4}$ ". C-4 pieces $2\frac{1}{2}$ " x $2\frac{1}{2}$ " D-4 pieces $1\frac{1}{2}$ " x 4 " E-2 pieces $1\frac{1}{2}$ " x $5\frac{1}{2}$ " F-1 piece $2\frac{1}{2}$ " x $7\frac{1}{2}$ " Threaders.

Using A, fold the top unit. Using B, fold the base unit. Using C and D, fold the four upright units. Thread the four uprights on the threader F. Fold and crease the threader well after threading each unit. Slip the extending end of the threader into the first unit. Slip the threaders E into the opposite units of the two open square ends. To do this, slip in one end, fold down and crease. Lay the threader over to the opposite side, fold and crease before slipping the end into the unit. Paste the top and base of the table to the square ends of the upright.

Bed Room Chairs

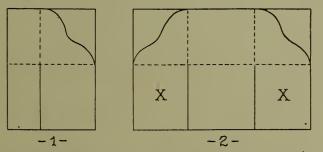


Plate 16.

Light brown paper, 1 sheet, 9" x 12".

A—Chair sides are the same as the dining room chair Plate 14.

B—Chair seat is the same as the dining room chair.



The back is one piece of paper 3" x $4\frac{1}{2}$ ". Fold the $4\frac{1}{2}$ " edges together and crease lightly. Mark the $4\frac{1}{2}$ " edges off into $1\frac{1}{2}$ " spaces. Place the ruler to the opposite points and fold the paper. Crease well. Holding the 3" edges together, cut off the corners and cut the folds as shown in Illus. 1. Slip the squares "X" into the side units of the seat. (Illus. 2.)

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Bed

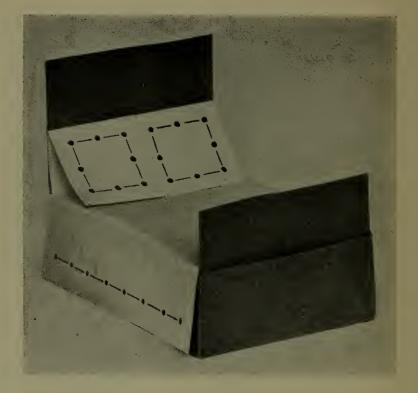


Plate 17.

Light brown paper, 3 sheets, 9" x 12". White paper, 1 sheet, 9" x 12". Brown paper A-2 pieces 1¹/₂" x 6" Side units $1\frac{1}{2}$ " x 5". B—2 pieces 21/2" x 5" C-2 pieces 1 1/2" x 5 End units $1\frac{1}{2}'' \ge 3\frac{1}{2}''$. D—2 pieces 2¹/₂" x 3¹/₂" E—2 pieces $1\frac{1}{2}$ x 7 " Threaders. F—1 piece $3\frac{1}{2}$ x 7 " Top. G—1 piece $3\frac{1}{2}$ " x 4 " Head. H—1 piece 2 " x $3\frac{1}{2}$ " Foot. White paper I—1 piece 5 " $x 6^{1/2}$ " Bed spread. J-2 pieces 13/4" x 31/2" Pillows.

Using A and B, fold the two side units. Using C and D, fold the two end units. Slip the two threaders E through the two end units, having the extended ends even in each. Fold over the ends of the threaders and crease. Slip the ends of the threaders into the ends of the side units. Fold over the two short ends of F in 1" folds. Slip the folded ends into the sides of the end units. Slip the head piece G into one end unit and the foot piece H into the other. Fold the two short ends of I $1\frac{1}{2}$ " from edges. Crease well. Lay over body of bed. Place the short edges of J together and fold. Slip one end of each piece of J a little way into the unit at the head of the bed.

Dresser

Light brown paper, 2 sheets, 9" x 12". White paper or silver paper, 1 piece, $1\frac{1}{2}$ " x $2\frac{3}{8}$ ". Light brown paper A—2 pieces $2\frac{1}{2}$ " x $4\frac{1}{2}$ " Front and back unit B—2 pieces 3 " x $4\frac{1}{2}$ " $2\frac{1}{2}$ " x 3".

 $\begin{array}{c} B = 2 \text{ pieces } 3 & " \ge 4\frac{1}{2}" & 3 & 2\frac{1}{2}" \ge 3".\\ C = 2 \text{ pieces } 2\frac{1}{2}" \ge 3 & "\\ D = 2 \text{ pieces } 1\frac{1}{2}" \ge 5 & "\\ \end{array} \right\} \text{ Side units } 1\frac{1}{2}" \ge 2\frac{1}{2}".\\ \text{Side units } 1\frac{1}{2}" \ge 2\frac{1}{2}".\\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3 & "\\ F = 1 \text{ piece } 3 & " \ge 3 & "\\ F = 1 \text{ piece } 1\frac{1}{2}" \ge 5 & "\\ \end{array} \right\} \text{ Top unit } 1\frac{1}{2}" \ge 3".\\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3 & " \ge 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3\frac{1}{2}" \times 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3\frac{1}{2}" \times 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3\frac{1}{2}" \times 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3\frac{1}{2}" \times 3\frac{1}{2}" \\ \end{array}$ $\begin{array}{c} F = 1 \text{ piece } 3\frac{1}{2}" \times 3\frac{1}{2}" \\ \end{array}$

Using A and B, fold the front and the back units. Using C and D, fold the side units. Using E and F, fold the top unit. Thread the threader H through

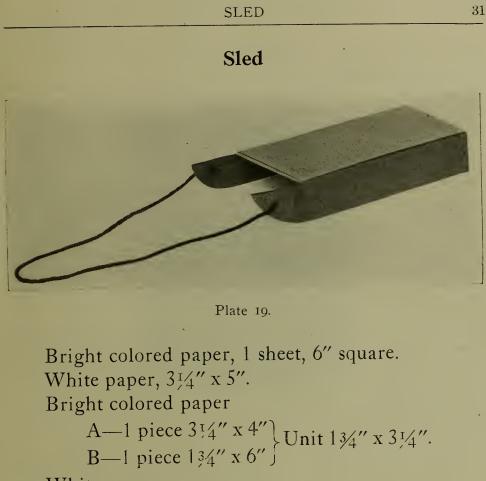
PASTELESS PAPER CONSTRUCTION

the top unit, having equal extended ends. Fold down the ends and crease. Slip the ends into the ends of the two side units. Thread the threaders I through



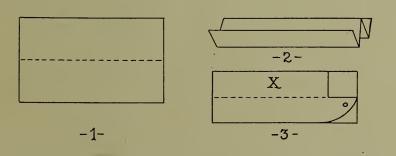
Plate 18.

the front and back units. Fold down the ends of the threaders and crease. Slip the four ends into the sides of the side units. On G paste the corners of the silver paper, leaving a $\frac{1}{4}$ " margin on three sides of the paper. Slip G into the top of the back unit. The scarf may be made and decorated similar to the bed spread, Plate 17.



White paper

C—1 piece $3\frac{1}{4}$ " x 5"—Runners.



Fold A and B into a unit. Fold C lengthwise. (Illus. 1.) Fold each long edge to the fold. (Illus. 2.) Unfold the last folds and cut as indicated in Illus. 3. Cut the runners apart at the middle fold. Slip the oblongs marked "X" into the sides of the unit. Tie a small cord in the ends of the runners.



Flower Vase

Plate 20.

Dark green paper, 3 sheets, 9" x 12". Light green paper, 1 piece, $\frac{1}{2}$ " x 12". Dark green paper A—2 pieces $2\frac{1}{2}$ " x $4\frac{1}{2}$ "---Unit $2\frac{1}{2}$ " x $2\frac{1}{2}$ ". B—2 pieces $2\frac{1}{2}$ " shy x $4\frac{1}{2}$ "-Threaders. C—4 pieces $2\frac{1}{2}$ " x 7" D—4 pieces $4\frac{1}{2}$ " x 5" E—1 piece $4\frac{1}{2}$ " x 12"--Threader.

Using the two pieces of A, fold the square base unit $2\frac{1}{2}'' \ge 2\frac{1}{2}''$. Thread in the two threaders of B at right angles to each other. Turn up the four 1" extensions of the threaders.

Using C and D, fold the four side units $2\frac{1}{2}''$ x $4\frac{1}{2}''$. Slip the threader E into the first side unit to the opposite side. Fold the extending threader down.

Thread on another unit and fold the extending threader down. In like manner thread on the third and fourth units. Slip the extending 2" of the threader into the first unit. Slip the four 1" extensions of the base into the four side units. If a small triangle is cut from each side of the base extensions, they will slip into the sides more easily.

Slip the end of the strip $\frac{1}{2}$ " x 12" into the side of one of the side units three-quarters of an inch. Fold the strip around the four sides, pulling tightly and creasing well at the corners. This divides the strip into four equal parts with a small extension at each end. Place a design on the four parts. Insert the three-quarter inch extension of the band into the side of one unit and 1" from the top of the vase. Wrap the band around the vase and insert the last end into the unit to lap the first end. A little paste will hold the band more securely if desired, but it is not necessary.

Work Basket

Brown paper, 2 sheets, 9"x12", or 1 sheet, 12"x18".

• A—6 pieces $2\frac{1}{4}$ x 3 " B—6 pieces $1\frac{1}{4}$ x $4\frac{1}{2}$ " } Unit $1\frac{1}{4}$ x 3".

C-1 piece 8" square-Base.

D—2 pieces 1¹/₄" x 12"—Threaders.

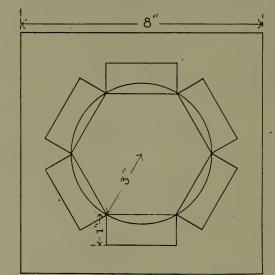
On C, draw a 6" circle using a 3" radius. Divide the circumference into six equal parts using the radius of the circle as the measure. Connect these points by straight lines forming an inscribed hexagon. Place the ruler to the opposite corners of the hexagon and draw the ends of the oblongs 1" in length. (See Illus.) Draw the other side of the oblongs. Cut out and turn up the oblongs.

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Using A and B, fold six units. Thread three units on each threader. Crease the threader after putting on



each unit. Slip the ends of each threader into the end units on the other threader. Slip the oblongs of the hexagon into the six units.

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Objects Based on the Sixteen-Square Fold

These objects are simpler in construction than the preceding ones and can be used more advantageously with the smaller children. They are based on the folding of a square paper into sixteen squares which is done as follows:

Place the square on the desk horizontal with the body. Bring the top edge down even with the bottom edge and crease. Open and bring the top edge down to the fold and crease. Turn the paper half-way around. Open and bring the top edge down to the first fold and crease. Open and turn the paper a quarter of the way around and repeat the above directions, putting in the crosswise folds. This divides the paper into sixteen squares.

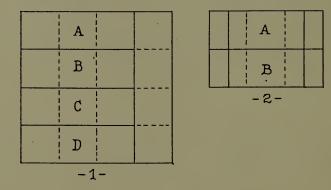
PASTELESS PAPER CONSTRUCTION



Plate 22.

1 piece of paper 6" square.

Fold into sixteen squares. Cut four strips one square by three squares. (Illus. 1.)



Fold the ends of A and B back to the fold and cut off the ends. (Illus. 2.) Fold A and B for a unit. Slip C through the unit and fold both extending squares down. Slip D into the unit at right angles with C and fold one extending square down and the other up.





Plate 23.

4 pieces of paper 6" square.

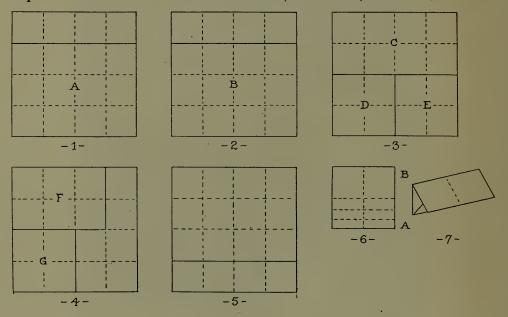
1 piece of white paper 6" square.

1 piece of white paper 3" square.

Fold the four 6" squares into sixteen squares and cut as indicated. (Illus. 1, 2, 3 and 4.)

Using A of 1 and C of 3, fold a unit two squares by three squares. Slip B of 2 into the unit and turn down the row of three extending squares on each side. Slip D and E of 3 into the ends of the unit to the fold. Turn down the two extending squares of each. Slip G of 4 into one end of the unit to the fold. Turn up the two extending squares for the footboard. Slip F of 4 into the opposite end of the unit to the fold. Turn up the four extending squares for the headboard.

Fold the 6" square of white paper into sixteen squares and cut as indicated. (Illus. 5.) Place this on

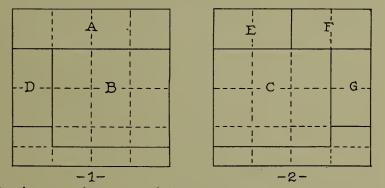


the bed for the spread. Fold the 3" square of white paper as indicated. (Illus. 6.) Fold up the strip marked A. Fold down the strip marked B. (Illus. 7.) Slip the strip marked A into the unit at the head of the bed and the pillows are in place.

Piano Bench



Plate 24.



2 pieces of paper 6" square.

Fold the two 6" squares into sixteen squares and cut as indicated. (Illus. 1 and 2.)

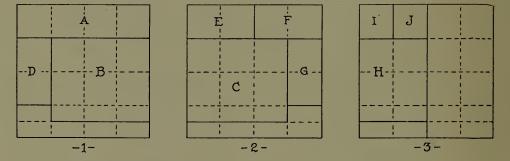
Fold A and B of 1 to form a unit 1 square by $2\frac{1}{2}$ squares. Slip C of 2 into the side of the unit. Turn down the extending oblongs 1 square by $2\frac{1}{2}$ squares. Slip the two pieces E and F of 2 into one end of the unit up to the fold, leaving one square of each extending. Turn one square down and one square up. In the same manner slip D of 1 and G of 2 into the other end of the unit and turn one square down and one square up.

PASTELESS PAPER CONSTRUCTION

Divan



Plate 25.



3 pieces of paper 6" square.

Fold parts of 1 and 2 using the same directions as those given for the piano bench. Slip H of 3 into the side of the unit to the fold. Turn the extending oblong 1 square by $2\frac{1}{2}$ squares up. Place I and J in the corners for pillows. A simple design may be made on the pillows, if desired.

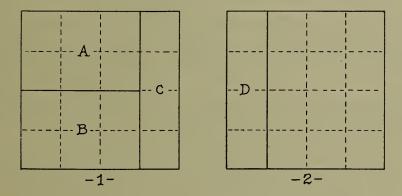
Library Table



Plate 26.

2 pieces of paper 8" square.

Fold the two 8" squares into sixteen squares and cut as indicated. (Illus. 1 and 2.)



Using A and C of 1, fold a unit 1 square by 2 squares. Slip B of 1 into the unit and turn down one row of two squares on each side. Slip D into the unit and at right angles to B. Turn down one square at each end.

Bureau

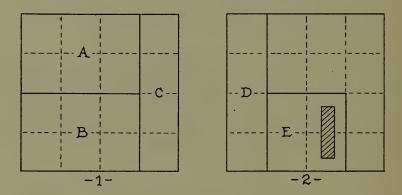


Plate 27.

2 pieces of paper 8" square.

1 piece of silver or white paper 1''x2'' for the mirror.

Fold the two 8" squares into sixteen squares and cut as indicated. (Illus. 1 and 2.)



Fold A, B, C and D as in the library table. Paste the mirror on E. (Illus. 2.) Slip E into the side of the unit to the fold and turn up the two extending squares.

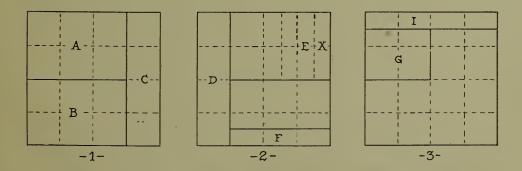
Kitchen Cabinet



Plate 23. 3 pieces of paper 8" square.

Fold the three 8" squares into sixteen squares and cut as indicated. (Illus. 1, 2 and 3.)

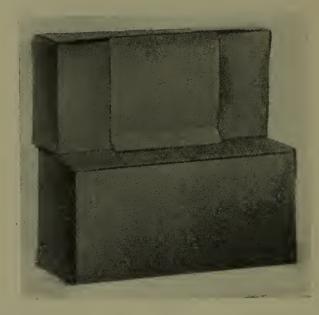
Fold A, B, C and D as in the library table. Fold F of 2 and G of 3 for the second unit $\frac{1}{2}$ square by 2 squares. Slip I through the second unit having an extension of $\frac{1}{2}$ square by 1 square at each end. Slip E



through the second unit having one extension 2 squares by $1\frac{1}{2}$ squares.

Slip the part of E marked X into the side of the first unit. This forms the upper part of the cabinet.

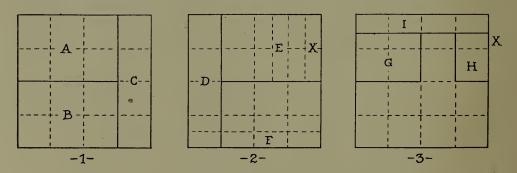
Piano





3 pieces of paper 8" square.

Fold the three 8" squares into sixteen squares and cut as indicated. (Illus. 1, 2 and 3.)



Fold parts A, B, C, D, E, F, G and I as in the kitchen cabinet. Slip the part of H marked X into the front of the unit at the top of the cabinet. Turn up about $\frac{1}{4}$ " of the bottom of the full square. Keys may be added if desired.

Dining Room Table

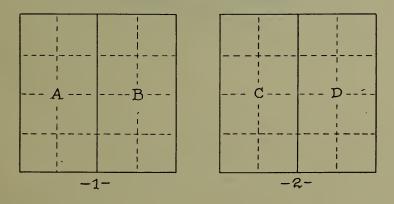


Plate 30.

2 pieces of paper 8" square.

Fold the two 8" squares into sixteen squares and cut as indicated. (Illus. 1 and 2.)

Fold A and B of 1 in the unit 2 squares by 2 squares. Slip in C of 2 leaving an extension on each side of 1 square by 2 squares. Slip D of 2 into the unit at right angles to C leaving the same extensions as in C. Fold down all four extensions.



Kitchen Stove

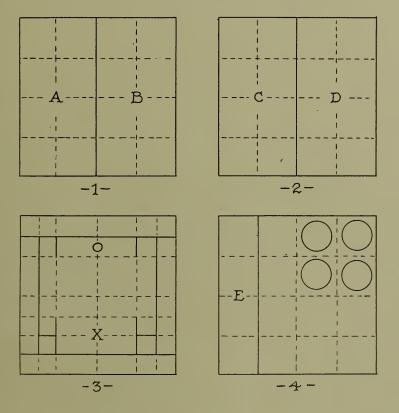


Plate 31.

4 pieces of paper 8" square.

Fold the four 8" squares into sixteen squares and cut as indicated. (Illus. 1, 2, 3 and 4.)

Fold A, B, C and D as in the dining room table. Cut a square as shown in Illus. 3. Push a pencil through for the stovepipe hole. Slip the part marked X into the unit. Slip the two little lower squares into the unit. Fold the two little upper squares in and fold down the top oblong. Roll in the long edge of E of 4.



Unroll and reroll, rolling in the opposite long edge. The second rolling holds it tightly without pasting. Push the stovepipe down through the hole in the shelf and on through the hole in the top of the stove. Cut the four circles for stove lids. (Illus. 4.) Place in position on the stove.

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