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Homemade Toys and Play Equipment
Michigan State University Extension Service
Alice Hutchinson
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HOMEMADE

Joy & PLAY EQUIPMENT . . .

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HOMEWARD

PLAY EQUIPMENT

HOMEMADE TOYS AND PLAY EQUIPMENT

ALICE HUTCHINSON

One of the goals of the home should be to give each child a feeling of part ownership, a place to keep his possessions, and a space where he may play undisturbed—and undisturbing to adults. Homes arranged so that self-help is possible for the children provide opportunities for them to learn to care for themselves, to grow in responsibility, and to develop habits of neatness and order. A suitably equipped space for the children to entertain their friends both indoors and out, is the goal of modern parents. Finally the home should be “our” home rather than the parents’ home so that all members may share in its responsibilities, resources and comforts.

Children are often expected to live and be happy in homes where their needs and comforts are not considered. Parents avoid many discipline problems when equipment is suited to the child. Cupboards for toys and play material encourage neatness and order, and avoid breakage which often happens when toys are kept in a box or basket. Chairs which fit the child prevent much restlessness at the table. Hooks conveniently placed for wraps and clothing encourage self-reliance.

Houses are built primarily for adults, but children’s needs change with the years. Parents are well repaid for their efforts if simple adaptations are made.

LIVING ROOM

The living room should have in it at least one chair to fit each child. A table on which he can place his book or materials adds to his comfort. Low shelves for a few toys and books give the children a feeling of “belonging” in the living room. If no other play space is available, it may be necessary to enlarge this area. A folding screen or one on a standard may partition this corner from the rest of the room. A poster board or blackboard might be arranged on the side of the screen facing the toys.

TOY CUPBOARD

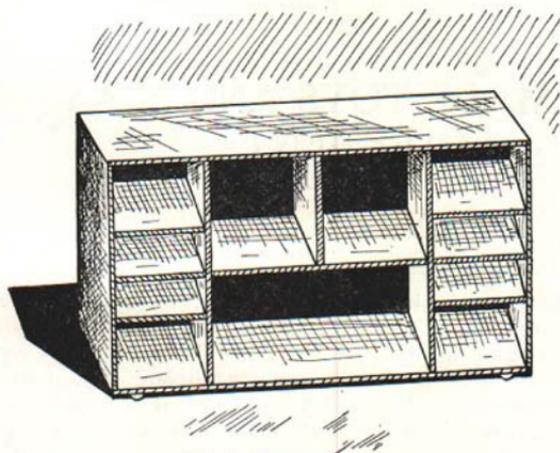


Fig. 1. Toy cupboard.

Toy shelves made from four orange crates fastened together with screws. Place glides on bottom. Add extra shelves made from tops and divisions of extra boxes. Sand and paint.

Various arrangements of orange boxes or fruit boxes may be fastened together in a modernistic arrangement for toy shelves. By adding shelves,

more space is provided for small toys. Wooden cheese boxes or cigar boxes painted in bright colors may be used on the shelves to hold small toys, crayons, scissors, and other materials.

TABLE

A small table can be constructed from packing cases using 1-inch x 2-inch wood for the legs. The top is covered with linoleum which is glued or cemented on. An old table, such as a kitchen table, may be reinforced, the legs cut off, and painted to make a satisfactory child's table. If space is limited, a folding table is useful or a shelf hinged to a wall provides the child with play space.

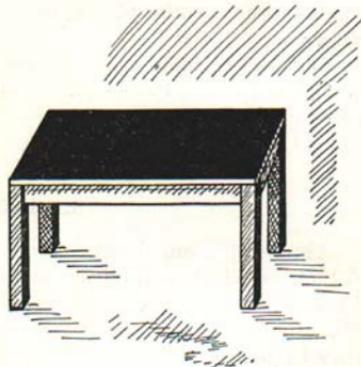


Fig. 2. Table.

SETTEE

Material: 2 orange crates, 4 glides, material for slip cover. Remove one side and division from one box. Shape ends for arm rests. Reenforce back, fasten two crates together and place glides. The seat may be padded and then the whole settee slip-covered to harmonize with room furnishings.

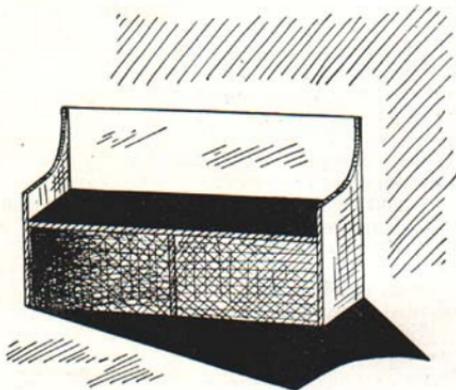


Fig. 3. Settee.

ORANGE CRATE CHAIR

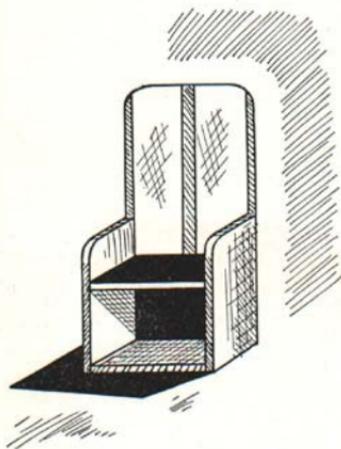


Fig. 4. Orange Crate Chair.

Material: Orange crate, $\frac{1}{2}$ inch rounds to reenforce; material for slip cover. Remove one end of orange crate. Lower center division to fit child. Shape back and arms. Reenforce with half rounds and brace back. Seat can be padded and then slip cover the whole chair.

DINING ROOM

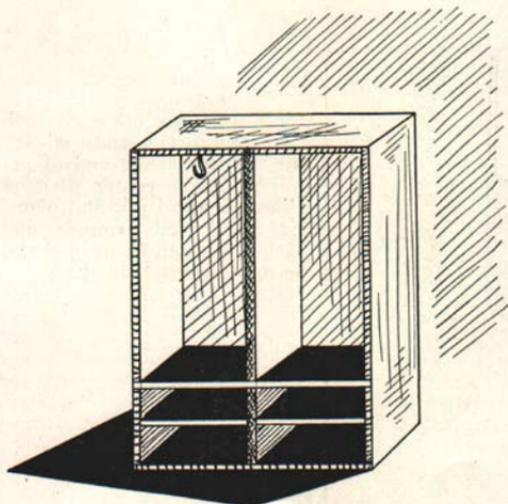
While children are learning to feed themselves, desirable habits are more easily encouraged if the children eat at their own low table. Parents often prefer a high chair for the infant. Check the high chair to be certain it is not easily tipped. A tray that fits securely on the chair prevents the child from standing up and, thus, accidents are avoided. Whenever children are seated at an adult table, their chairs should be raised to a point where their elbows are on a level with the table. This can be done by screwing door stops into the legs of an ordinary chair, or through the use of a youth's or high kitchen chair. When a chair is high enough for the child to reach the table comfortably, his feet do not reach the floor. A suitably placed foot rest or a box to support the feet prevents leg cramps and discomfort, a frequent cause of restlessness at the table among children.

Silver should be of the small variety; a salad fork and teaspoon meet the young child's needs. A straight-sided tumbler, with a heavy base, is more easily handled, and a full-sized dinner plate prevents spilling.

A PLACE FOR ONE'S BELONGINGS

Low hooks for wraps, shelves for rubbers and mittens placed near the entrance helps the child to care for his clothing. A simple locker arrangement suitable for two children may be constructed from three orange crates as shown in Fig. 5.

LOCKER



Cupboard for outdoor wraps made from three orange crates fastened together with screws. Screw two hooks into top of each.

Fig. 5. Locker.

THE CHILD'S OWN ROOM

A room for each child is preferable, but if this is impossible, each child needs a bed of his own. The bed should be large enough for complete relaxation and to permit some moving about. Good springs and a firm mattress help to develop good posture. Bedding that is warm, light in weight, and easily washed is the basis of an attractive and comfortable bed. A satisfactory bed can be made from a homemade wooden frame on which the springs and mattress are placed. In small rooms where floor space is limited, the double decker type or bunk bed may be arranged.

CHEST OF DRAWERS

Material: Four apple boxes. Frame made from packing crates. Spools are used for drawer pulls. Sand carefully and paint to harmonize with furnishings.

Each child needs either drawer or cupboard space in which to store his clothing. Small chests with several drawers are easier to keep in order than a large dresser drawer. A closet with rods and hangers placed within easy reach of the child encourages neatness. A low chair and shelf space for a few possessions are desirable additions in children's rooms.

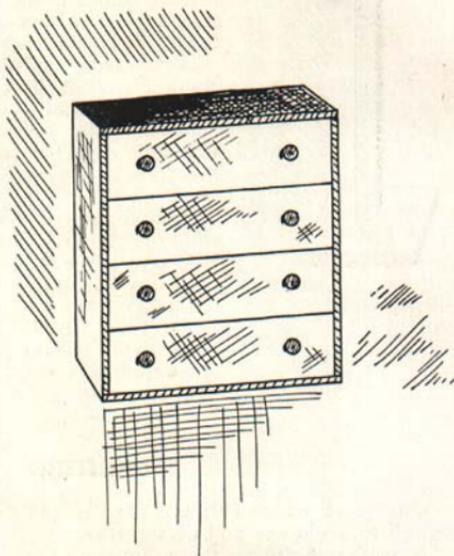


Fig. 6. Chest of Drawers.

CHILD'S WARDROBE

A discarded console radio cabinet or a large packing case may be used. One side may be arranged with a rod on which clothing may be hung, on the other, the top shelf may be used for hats, the bottom shelf for shoes and the other shelves for clothing. The child whose room lacks closet space finds a wardrobe a valuable addition.

COSTUMER

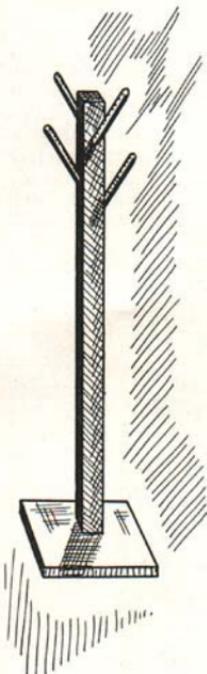


Fig. 7. Costumer.

A costumer on which the child may hang his clothing at night is easily made. An upright piece $1\frac{3}{8}$ inches x $1\frac{3}{8}$ inches x 40 inches is fastened to a base 12 inches x 12 inches x $\frac{7}{8}$ inch which is reinforced. Into the upright, drill at an angle four holes. Into these, 7 inch pegs of $\frac{1}{2}$ inch doweling are glued. After being sanded, the costumer may be painted to match other furnishings.

In children's bedrooms and playrooms, walls should be finished so as to be easily cleaned. Painted walls are more practical than papered ones because they can be washed. Plain walls in soft colors produce a restful effect and lend themselves to decoration more readily than those on which "childish" designs are used.

Linoleum is an excellent floor covering for children's rooms because it is smooth, free from splinters and can be easily cleaned. A hardwood floor carefully finished is also durable. Small washable rugs for warmth when children sit on the floor to play are more sanitary than larger rugs.

Simple washable curtains tied back give the child opportunity to see the out-of-doors. Dark shades are preferable and should be in good condition to regulate the amount of light in the room. Window screens of heavy wire set into the window frame and fastened so that the child cannot loosen or push them out are a safety precaution if kept in place the year around.

LIGHTING

Any place where children play should be free from glare but well lighted to avoid eye and nerve strain.

A ceiling fixture with a diffusing globe and large wattage bulbs is used to give a good general light. Even with good general lighting it is important to have special lamps for reading or other close work. Lamps with the diffusing bowl inside the shade give good light for study and reading. I. E. S. student lamps and pin-up lamps are well adapted to this purpose. If the lamps are the oil or gasoline variety they should be out of reach of small children and placed so that they cannot be tipped over and broken during play. The light source in a lamp should be out of the line of vision, being either high enough or to one side so as not to shine directly in the eyes. A frosted globe or shade should conceal the flame or bulb to avoid glare.

THE BATHROOM

Hooks and mirror placed low enough to be used by the child and steps or a box covered with linoleum help the child in caring for himself while washing.

STEPS

Steps may be made from new lumber or from pieces of packing crates. The addition of the drawer gives the child another space for his belongings. Glides are placed on the bottom so that the steps can be easily moved about.

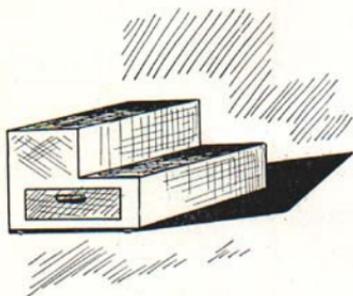


Fig. 8. Steps.

CHOOSING TOYS

"Work is inevitably preceded by play, and grows insensibly out of it."

—DEWEY

Toys are the child's tool for learning. Through play the child learns control of his body and the world about him. Play material is no longer given to the child to keep him out of mischief, but to help him develop into a happy, mentally well person.

Toys should be of the best construction, with round or beveled edges and corners, no loose parts and finished with non-poisonous paint. Poorly constructed toys lead to destructive tendencies. Play materials used by young children should be such that washing or cleaning is possible. Children prefer the realistic toys, life-like in color, proportion and design, rather than the grotesque.

Parents frequently buy toys unsuited to the child's age and development, or choose a toy that they like without considering the child's needs. The interest span of young children is short, and they require a variety of materials. Play materials can be grouped under three headings:

1. Activity toys, which involve the use of large muscles: wagons, tricycles, kiddie cars, wheel barrows, climbing ladders, teeters, swings, boxes, boards and balls.
2. Imitative and dramatic toys: dolls, animals, trains, boats, automobiles, household equipment, and costume materials.
3. Creative play materials: blocks, clay, paints, paper, scissors, tools, wood, sand, cloth and sewing materials.

For a well-rounded development, each child needs toys of all three types. A carefully selected group of homemade and purchased toys will meet these requirements. When making or buying toys, the following questions should be asked:

1. What can the child do with the toy?
2. Does it fit his needs?
3. Is it suitable to age and development?
4. Is it well constructed?
5. Is it safe?
6. Is it hygienic?

Many toys which satisfy the needs of the child can be constructed by parents or older brothers and sisters at home. Children enjoy the toys more if they are allowed to help make them. Materials which are frequently discarded by the homemaker may with the addition of paint, nails, glue, and the use of a few simple tools and time, provide the child with a well-rounded assortment of toys.

Materials which can be used in the construction of toys and simple equipment.

shipping crates	chalk boxes
packing boxes	cigar boxes
orange crates with solid ends	fruit baskets
prune and dried fruit boxes	lard or butter tubs
apple and grape boxes	kegs
cheese and codfish boxes	barrels
macaroni boxes	inner tubes
cranberry boxes	spools of assorted sizes
corned beef boxes	broom and mop handles

Pieces of material, such as percale, gingham, seersucker, for making doll clothes, stuffed toys, and costumes.

Toys for Various Age Groups

Infant:

Rattles, hard rubber toys.

Soft stuffed toys, made of washable material, with no loose pins, eyes or springs.

Spool doll, unpainted.

One- and Two-Year-Olds:

Active play: wagon, balls, push-and-pull toys, kiddie car, doll carriage.

Creative play: blocks, peg toys, large beads, treasure box.

Imitative or dramatic: soft bodied dolls, animals, chair, table, squares of material to wrap around doll.

Three- and Four-Year-Olds:

Active play: kiddie car with pedals, tricycle, wheel barrow, wagon large enough to sit in, balls, sand box and toys, ladders, planks, boxes, swings, saw horses.

Manipulative and creative play: blocks, large wooden beads, large crayons, large sheets of paper, paints, hammer, nails, soft wood, blunt scissors, plasticine.

Imitative: animals, dolls, doll furniture, housekeeping materials, dishes, trains, boats, automobiles.

Five- and Six-Year-Olds:

Active play: swings, tricycle, balls, wagons, playground equipment, roller skates and sleds.

Creative play: blocks, workbench, tools, wood, paper, scissors, paste, crayons, clay, simple puzzles.

Imitative: furniture, dolls, stores, animals, trains, costumes.

Six to Eight:

Active play: bicycle, baseball, football, roller and ice skates, garden tools.

Manipulative and creative play: construction sets, tool chest, modeling and painting materials, looms for simple weaving, puzzles, paper dolls.

Imitative: mechanical toys, transportation toys, costumes, dolls with clothing, furniture.

Games: croquet, ping-pong, fish pond, board games, parchesi, dominos, checkers.

TOYS SUITABLE FOR THE INFANT**RATTLE**

Small pebbles or rice are placed in an aluminum sugar or flour shaker. Glue cover on to be certain it cannot be removed.

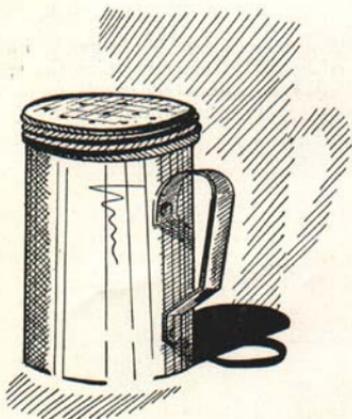


Fig. 9. Rattle.

SPOOL DOLL

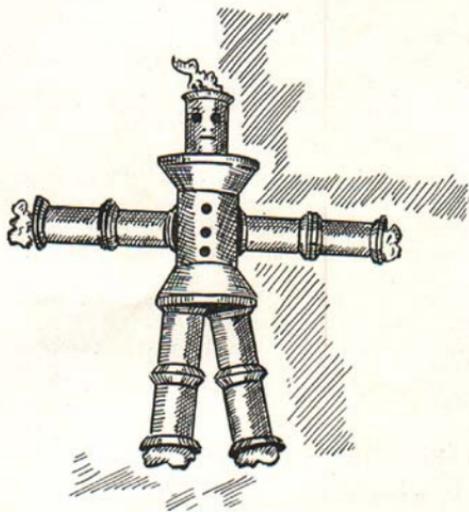


Fig. 10. Spool Doll.

through neck and head spool. Fasten with a knot which, after being tied firmly, is placed within the spool. Do not paint.

A few unpainted spools on a white tape make a simple, satisfactory toy for the infant.

Material: 10 medium sized spools, 1 large spool, 5 small spools, such as are used for darning cotton or thread with bias binding. Round elastic is used to string spools on. Drill a hole horizontally through the large spool used for the body just below the top. Thread one end of elastic through spools in leg, using small spool to hold it, and other end through second leg. Bring elastic up through the "body" spool, use one end for the right and other for the left arm, pull elastic out drilled holes through arm spools, and back to body spool, and up

CLOWN

Material: Large 9-inch rubber ball; gay print material 10 inches long, 32 inches wide, contrasting material, 1 piece $3\frac{1}{4}$ inches wide, 32 inches long, and 1 piece $3\frac{1}{2}$ inches wide and $18\frac{1}{2}$ inches long. Sew contrasting material and print together lengthwise, double over in center and hem down, having facing $1\frac{1}{2}$ inches wide finished. Gather top of skirt into a piece $18\frac{1}{2} \times 3\frac{1}{4}$ inches. Turn contrasting material and make hem $1\frac{1}{2}$ inches wide. Make head from white stocking stuffed with cotton, and embroider eyes, nose and mouth. Make a pointed cap to fit and sew to head. Fit a 2-inch stiff cardboard round at bottom of head. Fasten top of skirt on cardboard in bottom of head, drawing up to fit head. Insert ball and fasten at bottom ruffle. Make feet and hands of white material. Sew arms into fold of dress. Sew feet into edge of skirt leaving ruffle free. When rolled about, clown apparently performs.



Fig. 11. Clown.

PULL TOY

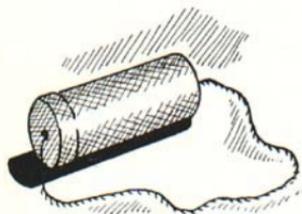


Fig. 12. Pull Toy.

Tall baking powder or cookie can. Put a few pebbles inside. To pull, insert cord through ends, knotting inside. Glue top on. A good pull toy for the small child.

STURDY PICTURE BOOKS

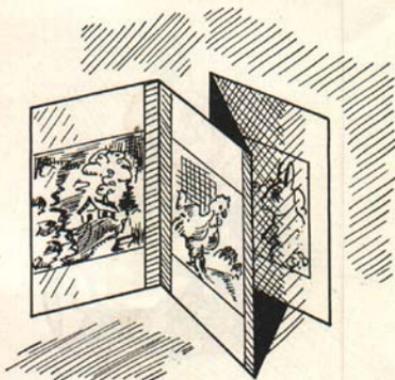


Fig. 13. Sturdy Picture Books.

Four backs of pads $8\frac{1}{2}$ inches x 11 inches, 6 strips of cotton material 2 inches wide. Place edges of pads together. Along joints, paste strips of cotton on both sides. Single pictures are then pasted on each section. This book folds in accordion fashion and is well suited to the needs of the very small child.

Another type of picture book is made from plain material such as paper cambric, percale, or window shades. Cut with pinking shears the 3 pieces of material 25 inches x 12 inches. Place together and stitch through the center with three rows of stitching $\frac{1}{4}$ inch

apart. Paste single pictures on each page such as covers from the small magazines. A larger book is made in the same way using four pieces of material 33 inches x 12 inches. Fold so as to make book $16\frac{1}{2}$ inches x 12 inches. Pictures from the larger women's magazines will fit in this book.

TOYS SUITABLE FOR YOUNG CHILDREN

NESTED CANS

Material: 6 to 8 cans sizes 1 to 5 of approximately the same height. Cans should be opened with a can opener which cuts within the rim, leaving a smooth edge. Remove cover completely, wash thoroughly, dry, and paint bright colors.

These can be nested or built into a tower by the child.

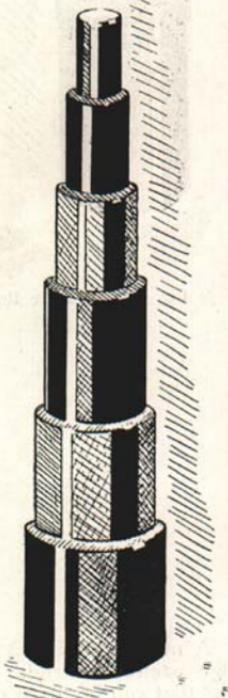


Fig. 14. Nested Cans.

TREASURE BOX



Fig. 15. Treasure Box.

Material: Can with cover, or wooden box (chalk or cod fish) and milk bottle tops.

Cut hole 2 inches x $\frac{1}{4}$ inch in cover, turning edges under on can and pounding down on inside. Paint a bright color. Milk bottle tops should be carefully washed and dried.

CLOTHESPIN TOY

A number 2½ or 3 can with a smooth edge painted a bright color with clothespins that can be fitted over the edge.

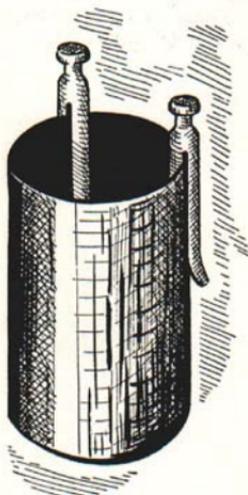


Fig. 16. Clothespin Toy.

SPOOLS FOR STRINGING

Collect spools of various sizes. Paint clear, bright color using non-poisonous paint. For strings, use long shoe laces, or tape, one end of which has been dipped in enamel or glue to a depth of 3 inches and allowed to dry. The stiffened end acts as a needle for stringing. Brightly colored boxes, small pails, or baskets, make suitable containers.

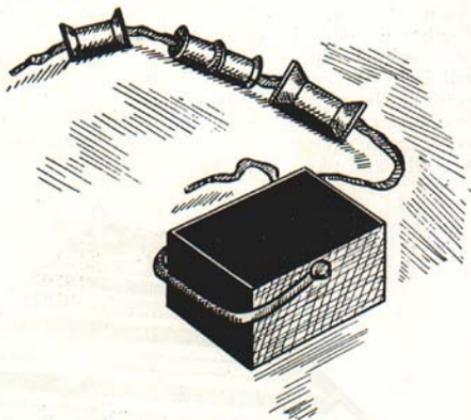


Fig. 17. Spools for Stringing.

PEG BOARD

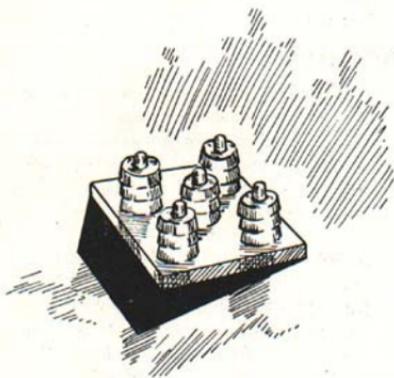


Fig. 18. Peg Board.

Material: 1 end of orange crate, small broom handle, five large spools on which wrapping paper is rolled.

Drill holes in board $\frac{1}{2}$ inch deep and the size of a broom handle. Cut broom handle in 4-inch lengths. Cut spools in three sections. Sand carefully. Paint one peg and sections of one spool to match. Use five colors if possible. This provides the child with an opportunity to match colors and learn size discrimination.

PYRAMID

Cut squares, triangles, or circles from the solid ends of orange crates or other wood $\frac{3}{4}$ -1 inch in thickness, varying in size from 8 to 3 inches. Cut broom handle 10 inches in length. Use largest block for the base, drill hole part way through board, insert piece of broom handle and reinforce by putting a screw through the bottom into post. Each piece should be cut $\frac{1}{2}$ inch smaller than the preceding one. Drill hole in the center large enough to allow blocks to be fitted on post readily. Sand carefully and paint with rainbow colors.

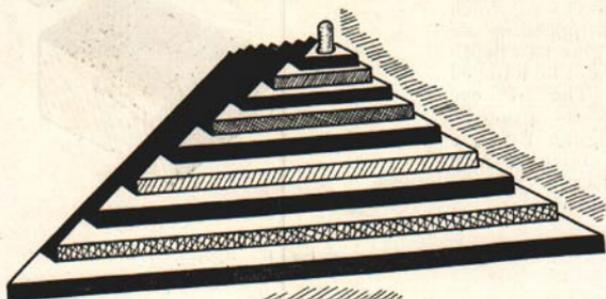


Fig. 19. Pyramid.

POUNDING BOARD

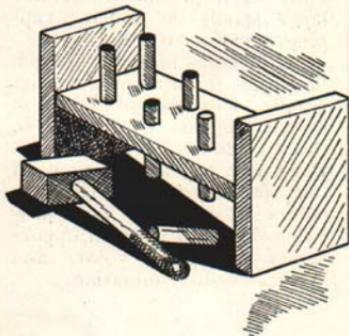


Fig. 20. Pounding Board.

Material: Orange crate, 6 pieces of broom handle each 6 inches long, mallet made from wood block 2 inches x 2 inches, and handle from child's broom or $\frac{1}{2}$ inch doweling.

Cut 3 pieces 5 inches x $8\frac{1}{2}$ inches from solid ends of orange crates. In one piece bore 6 holes through to just fit the pieces of broom handle. Fasten 3 sections together using screws, the piece containing the holes between two ends to form an H. Drive pegs into holes. They should fit firmly. A small mallet can be made from a wooden block and the handle of

a child's broom. The pegs are driven part way through, and the board is then turned over and the pegs pounded to the other side. This satisfies the young child's need for a place to pound. If the pegs loosen, soaking over night in water will cause the wood to swell enough so as to make the pegs fit.

TRAIN

Material: 1 cocoa or tea can or block $3\frac{1}{2}$ inches x $3\frac{1}{2}$ inches, 1 long narrow can, 1 board 12 inches x 4 inches x $\frac{1}{2}$ inch, and 2 spools.

Shape 12 inch board to resemble engine. Fasten $\frac{1}{2}$ spool for a headlight and 1 spool for smoke stack to a long can (cookie or baking powder can) with nuts and bolts placing nuts inside of can. Fasten

boiler of train to base with two flat-headed bolts. Attach can or block for a cab. Sand and paint. Cars are made from chalk, cigar, or cheese boxes. Reinforce the boxes and attach hooks and screw eyes to fasten together. The young child enjoys this type of train to push and pull about without wheels as much as he would one with wheels. If wheels are desired, they may be cut from large spools, doweling, or button molds. Casters can also be used in place of wheels.

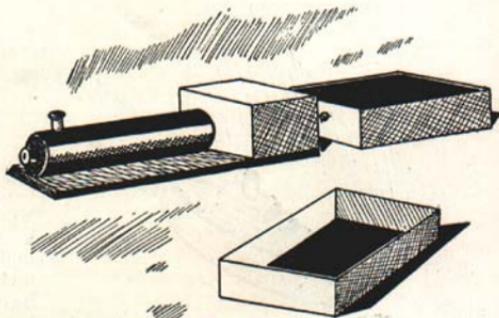
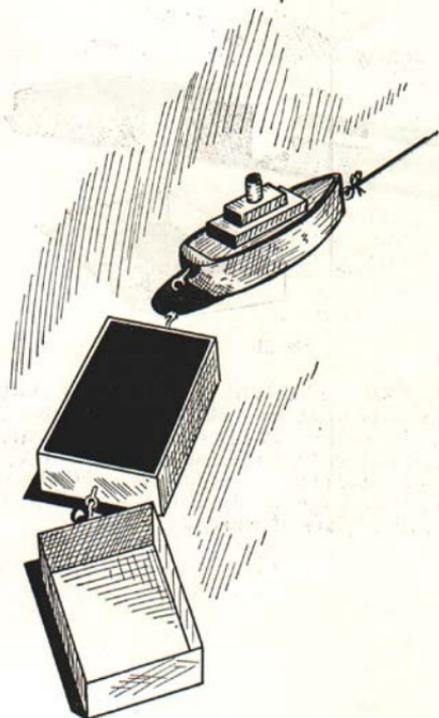


Fig. 21. Train.

TUG BOAT WITH BARGES



Material: Blocks of wood 12 inches x 5 inches x $\frac{3}{4}$ inch; 6 inches x 3 inches x $\frac{3}{4}$ inch; and 3 inches x 2 inches x $\frac{3}{4}$ inch; broom handle, 2 cigar boxes, cup hooks and screw eyes.

Shape largest block, fasten smallest block to second block with screws. Fasten to base with screws. Use piece of broom handle for a smoke stack. Use hooks and screw eyes to fasten together. Sand carefully and paint.

Fig. 22. Tug Boat with Barges.

TELEPHONE

Material: 2 large spools, 8-inch piece of broom handle, 4-inch base, piece of cord.

Cut spool in half for mouth piece and attach with a bolt to standard made from base and broom handle. Fasten second large spool to cord and standard for receiver.

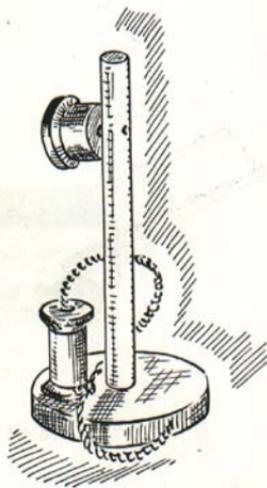


Fig. 23. Telephone.

DOLL CLOTHES

Doll clothes are best made from washable, durable material of small design similar to those suitable for young children's clothing. Little children enjoy pieces of material of different colors and shapes in which to wrap their dolls. A narrow hem is the only finish needed.

A doll dress which young children can put on and take off easily is made with kimono sleeves. Cut dress with extra wide neck and run elastic through the binding. The only other garment needed is a pair of panties with elastic at the waist.

Children somewhat older enjoy clothes made with buttons and buttonholes but the buttons should be at least $\frac{3}{8}$ inch in diameter.

DOLL BED

Material: Apple or fruit box, pieces from crates.

Large beds from fruit boxes, and cradles from oatmeal boxes provide the girl with beds for her doll family. All boxes should be carefully sanded and then painted.

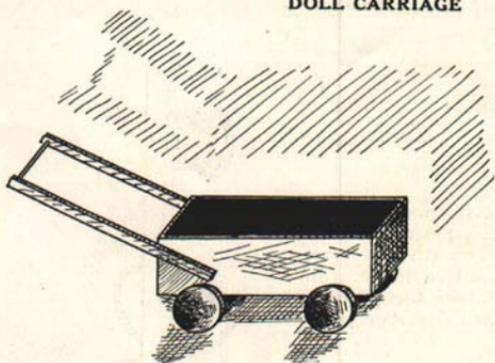
DOLL CARRIAGE

Fig. 24. Doll Carriage.

Material: Fruit box, pieces from crates for axles and handles, wooden wheels or those from discarded toys.

CREATIVE PLAY MATERIALS**BLOCKS**

Blocks fill a need in the child's life for building material with which he may create houses, towns and roads. Blocks are enjoyed by both girls and boys over a long period of childhood. Satisfactory blocks can be made at home from several types of materials. Cigar or cheese boxes with covers attached and painted to make large size hollow blocks. Lumber companies and some manufacturers making wood furniture sell scrap wood suitable for blocks. The blocks should be sanded and sharp edges smoothed. It is better if the blocks are sawed to uniform size. If this is done on a unit basis they fit together and the child has greater satisfaction in his constructions.

A unit size found satisfactory is suggested. They should not be too large or heavy to be handled comfortably. A box on casters, a large basket, or shelf space should be provided for their care. Blocks used indoors may be left in a natural finish. A few painted as doors and windows add interest for the older child. Ends of orange crates make good

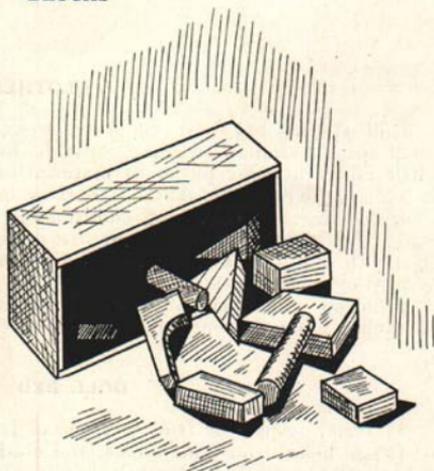


Fig. 25. Blocks.

roofs. Spools and other odd bits which come into most homes should be added to the block collection.

Size of Blocks

6 oblongs 12" x 3" x 1½"	2 half circles
8 cubes 3" x 3" x 3"	curves 3¾" x 17" x 1½"
18 squares 3" x 3" 1½"	8 triangles 3" x 6" made by cutting oblong blocks
48 oblongs 6" x 3" x 1½"	6 diagonals 3" x 3" made by cutting squares
4 cylinders 1¾" x 6" cut from doweling	12 pillars 6" x 1½" x 1½"
4 cylinders 2½" x 6" cut from doweling	
2 gothic arches	

HOMEMADE MODELING CLAY

Supplies: 1 cup flour, ½ cup salt, 3 teaspoons alum, ¼ cut water, vegetable coloring. Mix materials together and place in a can with a tightly fitted cover.

Knead a little water into the clay whenever it becomes dry.

PASTE

One-third cup flour, 1 cup water, ¼ teaspoon oil of cloves. Prepare as you would for starch. Boil 5 minutes. Keep in a small jar.

CRAYONS AND SCISSORS

Crayons one-half inch in diameter are more easily handled by the child. They also are less often broken. Scissors should be blunt. The child using scissors should be taught to sit at a table. A box containing paper and pictures which he may cut should be provided.

A two-yard square of canvas or heavy material placed under the child's table or easel while working will save time and energy in cleaning up scraps and litter.

EASEL

Material: 2 pieces wallboard 30 inches x 24 inches; 4 pieces of wood 44 inches x 4 inches x ¾ inch; 4 cheese boxes; 2 hinges, and a long hook to act as a brace, 2 screw eyes. Make a frame from pieces of crates hinging at the top. Fasten pieces of wallboard to frame. Arrange two cheese boxes on each side to be used for holding paint jars. If one wallboard is painted with blackboard paint, the child has both a blackboard and place to paint. Large sheets of newsprint fastened to the wallboard with thumb tacks provide paper on which to paint.

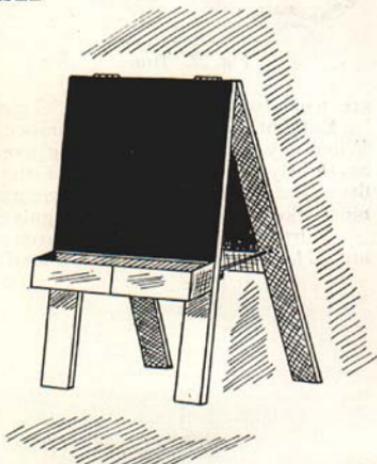


Fig. 26. Easel.

PAINT AND PAPER

Use show card or powder paints in the primary colors. These are more satisfactory than cakes of water color paints. A brush for each color at least $\frac{1}{2}$ inch in width and with a long handle should be provided. Newspaper print may be purchased by the pound from your local newspaper office. Cut in half or in fourths, this provides the child with a satisfactory surface on which to paint or draw.

SIMPLE MUSICAL INSTRUMENTS

DRUM



Fig. 27. Drum.

In making the drums, it is preferable to use inner tubes in which the rubber is not too old. Split the tube along the seam and place can on the tube, making certain there are no small holes, and mark around outer edge of can with a pencil. In cutting, allow one inch beyond pencil mark. Punch 12 holes with a paper or leather punch or round holes cut with scissors, spaced at equal intervals, between pencil mark and edge. Cut two pieces of rubber exactly alike. Shoe laces or laces cut from the rubber tubing, $\frac{1}{8}$ -inch wide, cut in a continuous strip by cutting around and around the tube before splitting,

are used to lace on the tops. Two laces two yards long are needed.

Cut both ends out of a number 10 can and paint it a bright color. When dry, place rubber tubing over each end and lace together. Lace as tightly as possible the first time, then tighten several times until drum head is taut. Test for tone as you tighten. This drum has a tone more like a tom-tom than a regulation drum.

A drumstick can be made from a 10-inch length of half-inch dowseling. The end is padded with a wad of cotton covered with cloth.

CLAPPERS

Two wood blocks 4 inches x 4 inches x $\frac{3}{4}$ inch on which spools have been fastened to one side with a screw provides the child with a simple musical instrument.

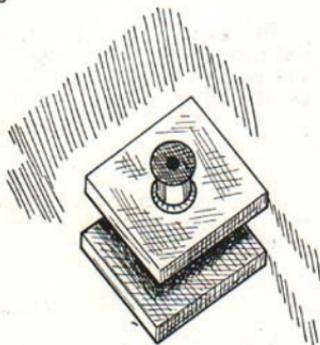


Fig. 28. Clappers.

BASS DRUM

Fig. 29. Bass Drum.

Material: A wooden lard or butter tub, a truck inner tube. The tube is opened along the seam and stretched over the open end of the tub. Fasten to tub with large-headed upholstery nails at quarters, then eighths, and so on until tube is fastened at 1-inch intervals.

OUTDOOR EQUIPMENT**LADDERS**

Short ladders can be constructed for the child's use, or adult ladders cut into four-foot lengths.

SAW HORSES

Saw horses of several different heights combined with planks provide the child with opportunities for active play.

PLANKS

Planks 2 to 10 feet in length and varying in width are a welcome addition to the child's play yard equipment. These should be sanded and painted to withstand weather. Sections of logs also provide fun for the children to climb and balance on.

BOXES

Large wooden packing boxes such as may be obtained from stores may be used to climb on or play house in, after all loose nails and splinters have been removed.

KEGS AND BARRELS

Kegs and barrels are welcomed by the child for rolling and climbing. These should be sanded carefully and all loose nails removed.

SAND BOX

A large packing box may be cut to a height of about 12 inches, or one made from planks. Planks arranged around sides provide the child with a place to sit. A bottom in the box is preferable because the sand is kept in better condition. A cover of wood or canvas will prevent animals and foreign materials getting into the box while not in use.

TOYS FOR THE SAND BOX

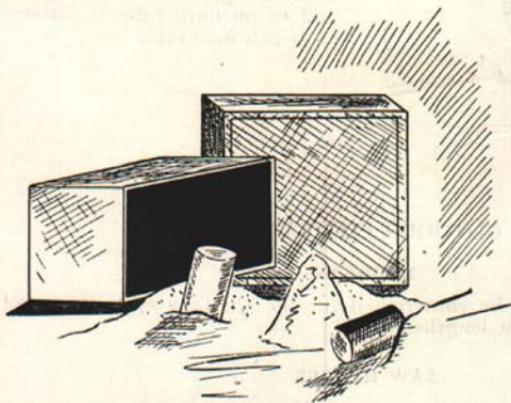


Fig. 30. Sand Toys.

Children enjoy sieving sand. A large sieve may be made from a piece of screening set in a wood frame. Tin cans washed and painted make satisfactory sand toys. Use an opener that cuts within the rim, leaving a smooth edge. A large basket or a packing box cupboard beside the sand box will provide the child with a place to keep his sand toys.

STILTS

Material: 2 tall coffee cans with screw tops, and 6 yards of clothes rope.

Paint cans a bright color. Punch two holes on opposite sides of the cans, being careful not to dent. Insert rope and knot on the inside. Glue cover on. Young children enjoy balancing themselves on these simple stilts.

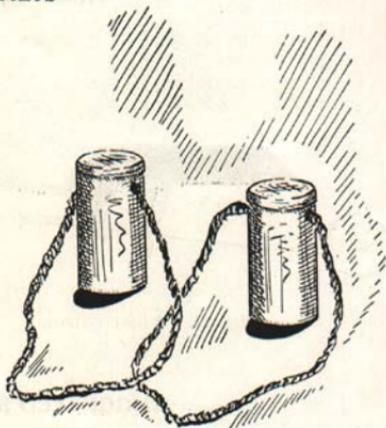


Fig. 31. Stilts.

WAGON AND TRAILER

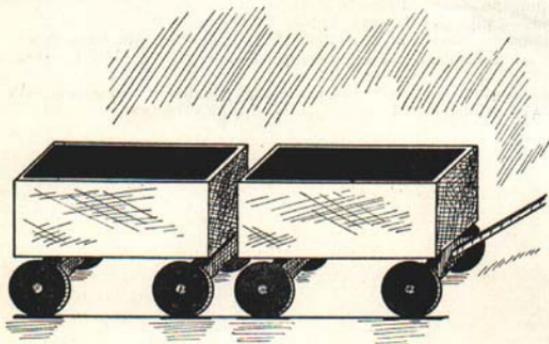


Fig. 32. Wagon and Trailer.

Use dried fruit or apple boxes. Pieces from crates are used for handle and axles. Wheels are cut from wood or those from discarded toys may be used.

WHEEL BARROW

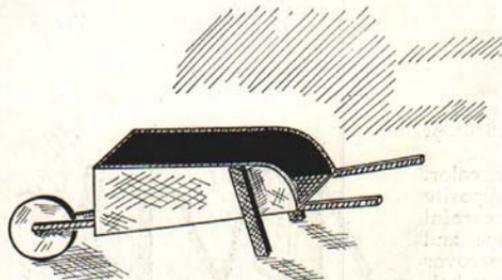


Fig. 33. Wheel Barrow.

Fruit box, pieces
from crate and
wheel are needed.

SUGGESTED READINGS

Books:

- Alschuler, Rose—Two to Six—Rev. Ed., William Morrow & Co., New York. 1940.
Anderson, Harold—Children in the Family—D. Appleton, New York. 1937.
Ellenwood, J. L.—There's no Place Like Home—Scribners, New York. 1939.

Bulletins:

- Home Play and Play Equipment for the Pre-School Child. No. 238—Supt. of Documents, Washington, D. C. Price 10 cents.
Backyard Playgrounds—Children's Bureau Folder 2. Free.
Nursery School Equipment—No. 2, 10 cents; No. 5, 25 cents. Obtain from Association of Childhood Education, 1201 Sixteenth Street, N. W., Washington, D. C.
Children's Playthings and Books—No. 15—Household Finance Corporation, 919 North Michigan Ave., Chicago, Ill. (There is a charge.)