

GILBERT  
CARPENTRY  
FOR BOYS

BY  
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being sure any glue that may have squeezed out is well removed. Stain should next be applied; the kind will depend on the material used. If oak, stain to match other pieces; other woods can be stained to imitate mahogany or black walnut. Shellac or varnish applied after the stain has thoroughly dried will give a satisfactory finish.

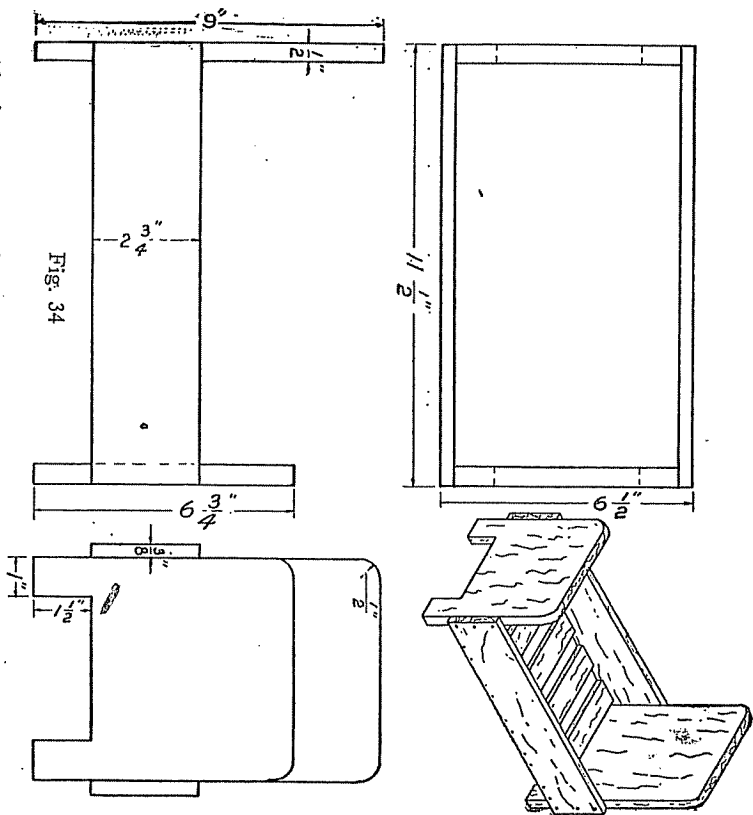
Ordinary chair cane is used for weaving the top. It comes in bunches containing 500 feet and costs from seventy cents to a dollar per bunch. One bunch will cover about two stools if built according to the dimensions given.

Cane is very dry and stiff; to make pliable soak in water for a few minutes before using. Warp one layer all the way across the top of the stool, tightly together. When one weaver is used up, tie another to it, making the tie on the under side of the stool. Weave the next layer at right angles to the first, as at 1, going under one, over three, under three, over three and so on. In coming back on the under side of the stool weave the weaver through the first layer, going over five, under five, etc. The second time across, as at 2, go under two, over three, under three, etc. The weavers must be forced close together, and you will find an old tooth-brush, having the brush broken off and the end tapered and filed round, a good tool for this. The third time across the weaver goes under three, over three, etc. The fourth it goes over one, under three, over three, etc. The fifth goes over two, under three, over three, etc. The sixth goes over three, under three, etc. The seventh repeating the operation as at 1, the eighth as at 2 and so on till the top is completed. A long piece of stiff wire run through the first layer ahead of the weaver will make an opening through which the weaver can be quickly threaded.

#### DOLL BED Fig. 34

The material for this bed can be taken from a pine shoe box. After the printing is taken off, no better boards could be wished for.

The most difficult operation in making the bed is removing the stock from between the legs on the head and foot boards. This can be done, however, very nicely with the coping saw. These pieces should be the first made. The drawing shows square corners for the part to be removed on each of these pieces, but the design may be slightly changed if desired by making these inside corners round. A radius equal to the one used in rounding the corners at the top of the pieces



would give very good results. This will add slightly to the difficulty, but it will give a little variety, especially if two beds are to be made.

In the drawing, the side rails are shown straight, but here again a little variety may be given to the design so as to look similar to the side rails of a common wooden bed. Observe the construction and try your hand at changing the design a little.

The construction indicated shows the side rails setting outside the head and foot boards. If desired, these may be set into the head and foot boards by cutting out a notch in each piece. This will make the edges of the latter smooth instead of having the side rails extending outside.

Assembling of the pieces should be done with inch-and-a-quarter brads. Be careful not to split the wood in nailing.

The bottom may be made of slats or of one solid piece made to fit inside of the bed. If slats are used, place them close enough together to prevent the mattress from sagging.

The bed will look much better if it is painted, but be sure it is dry before giving it to sister to be fitted with the mattress, sheets, quilts and pillows.

#### HOSE NOZZLE HOLDER Fig. 35

This is a simple device to hold a hose nozzle. It is easily made and is very convenient, as it can be readily moved from place to place. With a nozzle that can be adjusted to throw a spray, this can be made to take the place of an expensive spraying attachment.

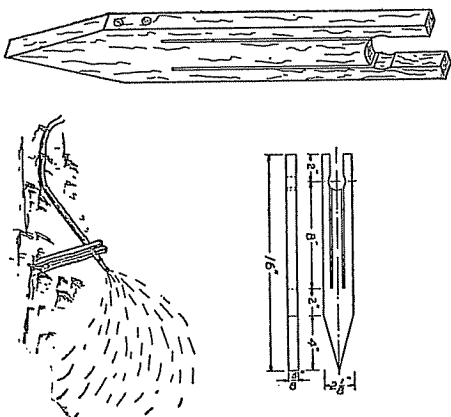


Fig. 35

The holder requires a piece of wood of good quality and straight grained for the best results. Get out the stock first to the largest dimensions shown in the drawing. Next lay out the cuts to be made lengthwise of the piece, also the shape of the pointed end. Locate the

position of the hole at the upper end. No dimension is shown, as the size will depend upon whether a half-inch or a three-quarter inch hose is used. Bore a hole according to the size you will use, being careful to bore partly from each side. Next make cuts with your rip-saw in the location indicated, stopping them six inches from the bottom. The purpose of the cuts is to permit the holder to be opened when placing the hose in position, and then, to return to position, thus holding the hose securely.

To keep the holder from splitting along the saw cuts, stove bolts, screws or even nails should be placed as shown.

Next saw the corners off the bottom end, forming the point for entering the ground. While the drawing does not show it, the end may be slightly tapered on the broad surfaces.

All the edges of the holder may be chamfered about an eighth of an inch to add to its appearance, after which a couple of coats of green paint may be applied.

#### CHAIR LAMP Fig. 36

This lamp will be found very useful, especially for reading. By means of the flexible arm the light may be directed to any desired place.

The first part to be made is the staff. As you would be unable to bore a hole through a piece of wood this length, it will be necessary to use two pieces and glue them together. Select two pieces the required thickness, getting out the width about one-eighth of an inch more than the finished size. Smooth one broad surface and one edge only on each piece. From the good edge lay out the grooves to be cut, being careful to locate them in the center of the piece. Gauge your lines as deeply as possible, then remove the stock to the required depth with a chisel. Work carefully. When the grooves are finished, slightly roughen the surfaces that are to join, then glue, the planed edges being together. While drying, lay out your pattern for the supports, and cut to shape. It will be well to bore the holes for the dowels before cutting. This will give good sharp edges on the slanting surfaces. Bore these holes carefully—absolutely in the center of the edges. Next make the cap, comment on which is unnecessary.

When the staff is dry, square up, then lay out and plane the taper. Locate and bore holes for the dowels. Sand all pieces well and then

assemble for testing. If satisfactory, take apart and glue the supports in place, gluing two opposite pieces at the same time. Be careful that



Fig. 36

the dowels are not permitted to extend into the hole in the staff. Round-head screws may be used for assembling, though the dowels will look much better.

If the lamp has been made of a good hard wood like oak, stain to suit. Soft wood may be used if it is desired to paint the lamp instead of staining it. The cord, gas pipe and flexible arm can be secured at the electrical fixture store. A twelve-inch arm will be found satisfactory for this size lamp. The shape may have to be purchased, though one can be made without much trouble.

PLANT TRELLIS Fig. 37

This trellis can be used either in a plant box or in the garden. If one larger than this is desired, it should be made by using separate

strips of wood fastened together at the bottom and separated at the top in a similar manner to this one.

The material should be such that the parts will bend without breaking. Basswood is very satisfactory, if it is straight grained. Plane up a piece to the over-all dimensions shown in the drawing. Next lay out the point. Saw and plane to shape, then slightly plane the corners. The saw cuts should be laid out accurately with a marking gauge. The laying out should proceed by working from the center of the board to the outside edges. It will be noticed on the drawing that a strip is also removed from each edge, making a corner on each side. The purpose of this is to provide a place for driving it into position in the ground.



Fig. 37

The sawing will require careful work. Hold the piece securely and do not work too fast. It will be impossible to get between these pieces after the sawing is completed, so try to get as smooth surfaces as possible.

The cross pieces for spreading the trellis may be made straight, though the appearance is very much better if made as shown. Only two of them are shown, but more may be added, if it is desired to provide better

opportunity for the plant to fasten itself to the trellis. Use fine brads about one inch long for fastening the cross pieces in position. If the trellis is to be placed in the center of a plant box, cross pieces may be placed on both sides.

A fine surface is not necessary for this piece, but it should be slightly sanded to remove the worst places. The piece should be painted a color to suit. White will contrast nicely with the green foliage, but a nice green may also be used.

WREN BUNGALOW Fig. 38

Material that will warp the least should be selected for bird houses, because they are exposed to the elements of the weather.

Cypress is very good, but packing boxes that are usually used to ship rubbers and shoes will, no doubt, be the most convenient, as the lumber in them is usually about three-eighths of an inch thick, and is just the thing for bird houses.

One thing to keep in mind when making a bird house, is, to provide some means for removing the bottom or top so it can be cleaned each

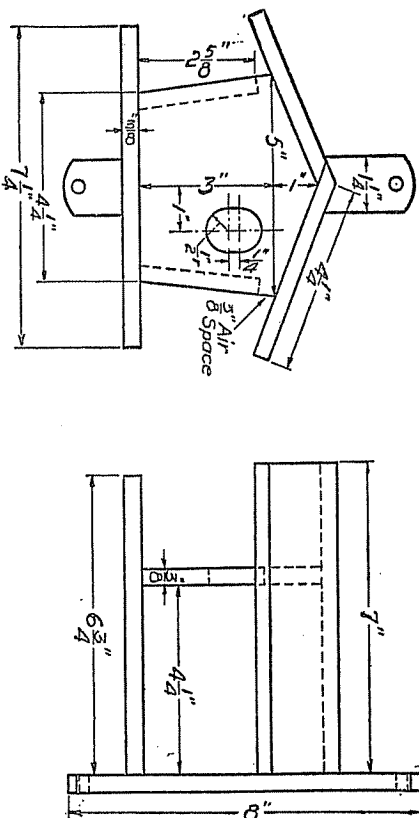


Fig. 38

season. This can be accomplished by fastening the part to be removed in place with screws, as they can be taken out without breaking the parts.

The front and back are the same size and shape. They can be most conveniently made by tacking two pieces together and planing to shape at the same time. The hole should be bored before the front is cut from the long piece of board; this will keep the wood from splitting.

Make the side pieces and assemble them with the front and back, using one-inch No. 18 brads. Now make the roof boards but do not plane the bevel until after they are bradded in place. Of course the piece is tacked in place and planed first and then the other tacked over it.

The floor may be fastened with screws to allow for cleaning. Also note the air space under the roof.

Paint the house white, tan, green or brown; this will preserve the wood and add to the attractiveness of the house. The house may be covered with bark or twigs held in place by tacks or brads, so as to add a rustic appearance.

Wren houses should be hung from six to twenty feet from the ground and protected from cats, squirrels, etc. A funnel-shaped piece of tin or row of spikes, placed about the post, will ward off the wren's enemies.

CHECKER TABLE Fig. 39

The checker table is just the thing for any boy's club. It is of the proper height for the average chair.

If the table is to be painted, any cheap wood can be used; but if it is to be stained, oak is desirable.

Make the legs (note that they are tapered at one end) and bore holes with a three-sixteenth-inch bit for the screws; never try to drive screws in wood without first boring holes for them.

Part B is merely two pieces fastened together by a half lap joint. This means making a cutout of half the thickness on each piece so they fit together with the faces flush.

The top should be selected from good dry lumber so it will not warp after being put in place. Fasten part B to the top with short screws. Next screw the legs to B and then put the shelf in place. Four braces are fastened to the legs and shelf with glue and nails; these will make the table more solid. The shelf is convenient for holding men that are removed from the board, leaving the board free for the men that are in action.

The checker squares should first be laid out with a pencil, making good, straight, and fine lines. Mark over these lines with a sharp-pointed knife, making a narrow groove. Give the top a thin coat of shellac before painting the squares. The square should be red and white or red and black. Cherry red dissolved in alcohol and then added to shellac makes a red shellac which will be good for this purpose. Black shellac can be made in the same way by dissolving lampblack in alcohol. Do not try to mix the dry colors in the shellac because they

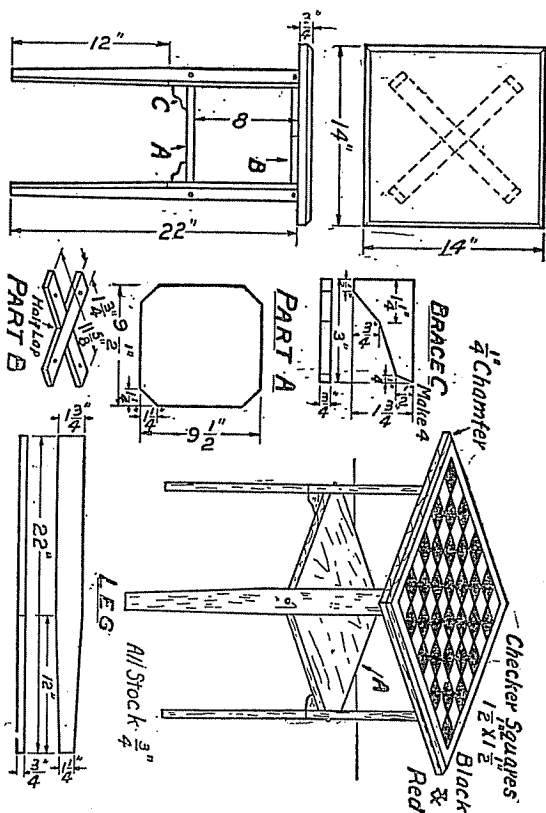


Fig. 39

cannot be properly mixed this way and the shellac will be such that it cannot be used. Place safety razor blades in the knife grooves so the colors cannot run together. When dry rub lightly with 000 sandpaper with the sand partly worn off; put a few drops of oil on the sandpaper. Finish the top with a coat of thin white shellac.

A box of checkers can be purchased at any ten-cent store or made by cutting disks from a broom handle and staining them.

## DOUBLE WINDMILL. Fig. 40

First get out your stock for the various pieces. Use your best pieces of wood for the vanes, if there is any choice. Get them to the over-all dimensions, then lay out the parts that are to be removed. Note that both pieces are not the same. One is just the opposite of the other. Before shaping them, it will be well to locate and bore the holes for the nail, boring slightly larger than the nail you are to use. Next, form the vanes with a good sharp knife. If the pieces are a bit cross grained, difficulty will be experienced in cutting, and careful work will be necessary.

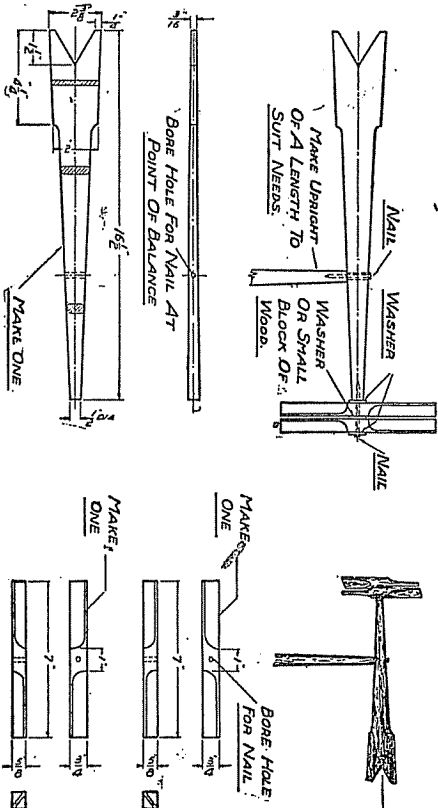


Fig. 40

Next make the part that rests upon the upright support. Observe the drawing with care. You will see, that at certain points on the drawing, small spaces have been drawn and light lines run across them. This shows the shape of the piece in these locations. It will be seen that the piece is round at one end. Part way back it becomes elliptical in shape and at the other end it is rectangular. Shape this piece nearly complete with your knife and finish with sandpaper.

The upright can be almost any piece of wood. Make length according to the place you wish to put the windmill. Shape it or not as you wish.

Washers should be placed between movable parts to permit them to revolve easily. The success of the windmill depends upon the ease with which it works.

The particular feature of this toy is that one of the vanes revolves one way and the other vane revolves the opposite. Painting will add much to the appearance. No scheme is given to follow. That is left to the individual taste of the maker.

#### AUTOMOBILE CART Fig. 41

With the exception of the axles and the hood, all the parts of this cart can be made from parts of cigar boxes. The drawing shows the body pieces one-quarter of an inch thick, but cigar material will answer the purpose very well.

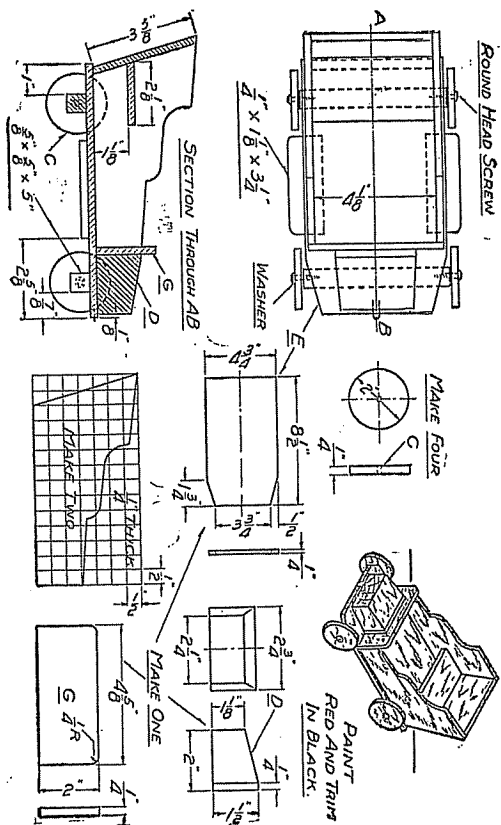


Fig. 41

Make up the stock to order and proceed to get the pieces to size. Lay out the patterns for the sides of the cart by means of your pantograph. Cut to shape with a coping saw. One piece may be finished first, and then used for a pattern for the second piece.

No pattern for the back piece of the cart is given, but an examination of the drawing shows that it should be made three and five-eighths inches wide and four and one-eighth inches long, with the top and bottom edges planed so they fit into position as shown.

Be careful in laying out and forming the wheels. They can be made almost perfectly true, if the work is laid out accurately, and attention paid to working to the lines. The cart will run much better if the wheels are as true as is possible to get them. Care will also be necessary in boring the holes for the screws, owing to the chance of the thin stock splitting.

No washer is shown between the ends of the axles and the wheels, but it will be well to use them there, as well as, between the screw and the wheels.

Use brads to assemble the parts. If carelessly done, the thin stock will likely split, but ordinary care will prevent this.

The cart will be much more attractive if it is painted. Red is suggested for the base coat, the trimming to be done in black. Stripe the sides about three-eighths of an inch from the edge all the way round. Stripe the wheels, and paint the hood to look as near like a real auto as possible.

#### MEDICINE CABINET Fig. 42

Make the top, bottom and two sides, first. Two-inch brads should be used to fasten the parts together, and to insure a good job, it will be well to lay out lines on the top and bottom pieces with a square, one-half inch from each end, as a guide in assembling. It will also be well to locate the position of the nails so they will not come out on the sides of the side pieces.

Make the shelves next, and to assist in placing in position, lines should be drawn across the side pieces on the inside. This will insure the shelves being parallel with the top and bottom.

The back of the cabinet is made of tin. This may be cut from a large varnish or syrup can by means of a common pair of tin snips. If tin is not convenient to secure, wood may be used instead, but the tin will save you lumber and provide more room inside the cabinet. Fasten the tin in place with large-headed tacks or brads. After this is done, you will find the cabinet very rigid.



Make the door of one wide piece or several narrow pieces. To prevent warping, and if the piece is not properly seasoned, fasten two thin cleats on the inside. Brass hinges  $\frac{1}{2}$ " x  $1\frac{1}{2}$ " or 2" should be used to hang the door, and should be set into the side of the door. The side of the cabinet on which they will be placed depends upon the direction it is desired to have the door swing. Some sort of a catch should be used to keep the door shut.

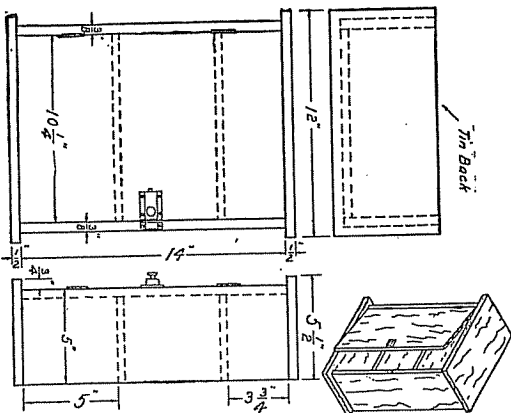


Fig. 42

As a suggestion, the cabinet might contain the following supplies: tincture of iodine for use in washing out open wounds or infections, also to paint bruised or painful parts; absorbent cotton for use in bathing and wiping cuts, etc.; bandages of different widths; carbolyzed vaseline for use in preventing bandages or other dressings from sticking to the wound; zinc ointment and soda for burns; liquid cast plaster or colloid for sealing cuts; a pair of scissors for cutting bandages; toothpicks with cotton wrapped around the end for painting or cleaning wounds; and a pair of tweezers for removing slivers, etc.

## FOOT BENCH Fig. 43

It will be well to start the end pieces first. Square up to the over-all dimensions and establish center lines. Measure each side of this line to get the width of the top, then connect these points with the outside corners at the bottom. This will lay out the slant of the outside edge of the pieces. On the center line locate the center of hole that is to be bored; locate other points at the bottom, then connect them to center of hole as shown. These operations will give the complete layout

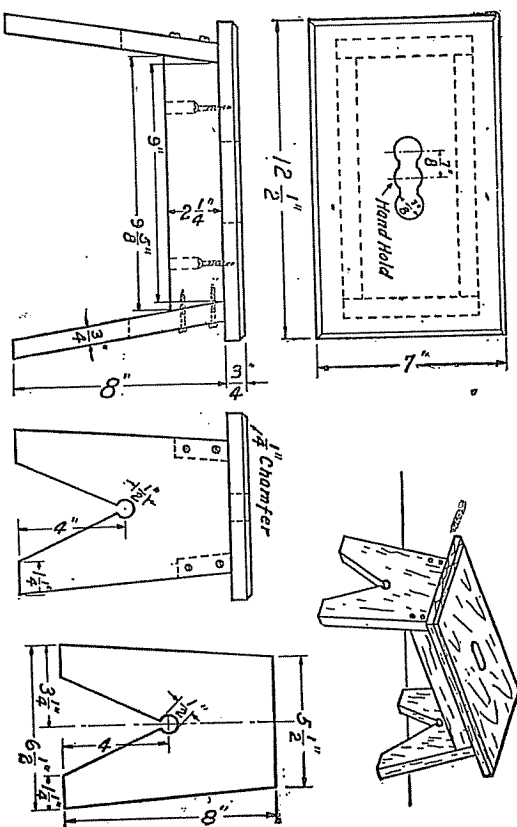


Fig. 43

of the design. Bore the hole from both sides of each piece, cut out the waste stock with saw, then plane the taper on the outside edges.

Next make the side pieces, being very careful that you get all the angles exactly the same, and both pieces exactly the same length. Bore half-inch holes about half-way through the pieces and three-sixteenths the rest of the way. Be sure you bore these holes on the right edge of the pieces. Notice that they can fit in only one position.

Plane top to dimensions and draw a center line lengthwise of the piece. At the center of the line and seven-eighths of an inch each