

HOME TRAINING IN CABINET WORK : NEW SERIES OF PRACTICAL TALKS ON STRUCTURAL WOOD WORKING. BY GUSTAV STICKLEY



HE spirit and purpose of this series of articles on structural wood working is best expressed in the motto of THE CRAFTSMAN, "Als ik kan," and in beginning this friendly talk with the boys, young and older-grown,—it seems most natural to go back to the time when I was a boy and first learned to make things.

Although the boys of to-day are to be the men of to-morrow, there are many grown-ups whom I hope to interest in these practical talks illustrated with drawings and working plans as object lessons, that can be utilized by any boy or man who wishes to do something with his own hands and head, and to learn how to do things right by beginning right.

Country-born on a small farm in the Middle West, where most of the land was yet heavily timbered, I found myself at the age of twelve called upon to do all kinds of farm work in the summer, and to chop wood and draw it to the nearest market in the winter. With few aids other than natural resources we were obliged to depend upon ourselves for the commonest needs and comforts of life.

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Under such conditions we could only think of making the necessary things in the most primitive and practical way. If we needed an axe-helve, an ox-yoke, a pair of bob-sleds or a pork barrel, we had to make them by hand; and in many cases we had even to make our own tools.

These things were made in a direct and substantial manner without any thought of ornament; and yet as I look back I can see that we worked out many beautiful shapes, especially in axe-helves and ox-yokes.

After many years and long experience I am free to own there was a deeper satisfaction in working out these simple forms which were put to practical use, than has come in later years from articles made for the exacting demands of modern taste. And so this thought comes up: When we come to make things ourselves and because they are needed, instead of depending upon the department store to furnish them, we shall not only find more pleasure in making them, but we shall also take more pleasure in possessing them.

In referring so frankly to my boyhood and experience, I do not forget that conditions have changed since then, and that I am addressing a later generation and many boys who are not compelled to work for a living so early in life, and are denied the privilege of earning by manual labor their own food, clothing and shelter, or to help to earn the comforts of life for the dear ones of the family.

While it is not necessary to return to primitive conditions of living, which demand that things shall be made to fit them, yet we can begin with primitive forms, which is always safe. In starting this way we begin right and have the structural instead of the non-structural always before us.

Too much stress can not be laid upon this principle, especially in the training of the young, and in spite of all the coddling influences of modern life, I still believe that the boys of to-day have the same good stuff in them, the same capacity for helpfulness and the same manly instincts of self-reliance of which strong men are made.

The natural and democratic impulses of the boy prompt him to friendly sympathy and liking for men who work, and work, honest, hard work has laid the foundations of the great achievements of the men who have shaped the past and are shaping the future of our country. I believe in the dignity of labor, useful, intelligent labor, but

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instead of trying to tell the boys what they will never fully understand until they have done some real work in the world, and learned to take pride and to find pleasure in it, I will simply ask them to read a few pages in the lives of men whose names are familiar to us all: Men like Abraham Lincoln, General Grant, James A. Garfield, William McKinley, Theodore Roosevelt, not to mention many others who have proved themselves truly great men in every walk and calling of life.

In almost every case the reader will see how proudly they refer to their humble beginnings, and the hard work done in boyhood. And right here I am tempted to quote a few lines from General Grant's story of his own early life: "When I was seven or eight years of age I began hauling all the wood used in the house and shops. I could not load it on the wagons, of course, at that time, but I could drive,—the choppers loaded and some one at the house unloaded. When about eleven years old I was strong enough to hold the plow. From that age until seventeen, I did all the work done with horses, such as breaking up the land, furrowing, plowing corn and potatoes, bringing in the crops when harvested, hauling all the wood, besides tending two or three horses, a cow or two, and sawing wood for stoves, etc., while still attending school."

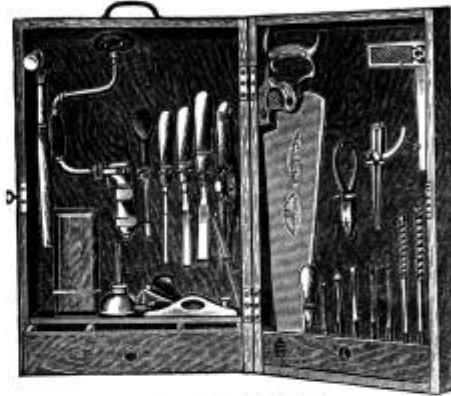
Many of the boys I hope to be able to interest and to persuade to learn how to do things for themselves, or for others, are those who are not driven by necessity to labor with their own hands, but who will, I trust, take up this work from choice, as many of their elders have done, who are not craftsmen by trade. These professional men and others find pleasure and relaxation during leisure hours in building something useful or working out some original notion, in that friendliest and most natural material that Nature has given to man for his shelter, and which enters so largely into the comforts and conveniences of the home.

The world has never found any substitute for wood in its many utilities and its natural beauty. Time and the forces of Nature have wrought out the many wonderful fibers and textures, and the almost endless variety of beautiful tracteries in the grains and the interesting age-mark rings which keep the record of the birthdays of the forest trees.

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THE FIRST LESSON IN STRUCTURAL WOOD-WORKING

IN presenting this first study of the subject, six illustrations are given, including a dog kennel, a bird house, a small chair, an arm chair, a medicine cabinet and a wall cabinet, together with two cuts showing the work bench and a tool cabinet.



THE TOOL CABINET

Tools, few or many, you must have, and various sizes of tool cabinets are made and furnished at from five to ten dollars, upwards. The one shown in the cut costs \$10.00 at retail. The work bench you will also need to buy, for you can not build it as it should be built for service, and the one shown is specially manufactured for the purpose, and costs \$8.00.

Each of the object illustrations is accompanied by brief but clear instructions, with working drawings and a mill bill. The latter is made out the same as for factory use, and if taken to the lumber manufacturer the materials can be all obtained cut to measure in the rough. Then with a little study, and the necessary tools, you will be ready to begin your part as a builder, selecting whichever article suits you best. Now do your best and make a workman-like job, although it may be your first attempt.



THE WORK BENCH

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BIRD HOUSE

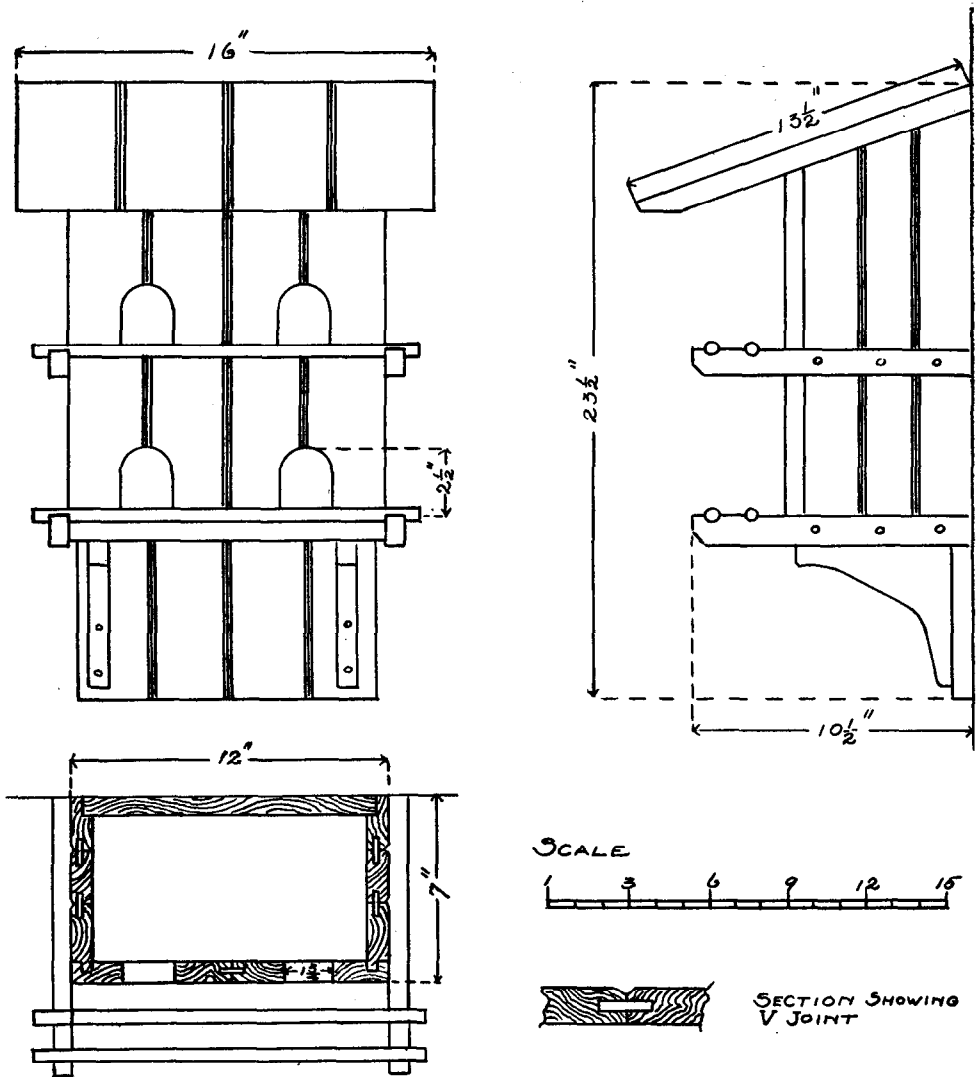
IN building the bird house there is little to note, as everything is very plainly shown on the working drawings. A good line for the bracket will add much to the interest of the piece. The back is fastened in with brads and a small brad through the perch will hold it in its place.



MILL BILL OF LUMBER FOR BIRD HOUSE

	Pieces	ROUGH			FINISH	
		Long	Wide	Thick	Wide	Thick
Roof	4	14 in.	4 $\frac{1}{4}$ in.	1 in.	4 in.	$\frac{3}{4}$ in.
Front and sides .	10	18 in.	3 $\frac{1}{4}$ in.	1 in.	3 in.	$\frac{3}{4}$ in.
Back	4	24 in.	3 $\frac{1}{4}$ in.	1 in.	3 in.	$\frac{3}{4}$ in.
Bottom & parti'n	2	12 in.	6 $\frac{3}{4}$ in.	1 in.	6 $\frac{1}{2}$ in.	$\frac{3}{4}$ in.
Side braces	4	12 in.	1 $\frac{1}{4}$ in.	1 in.	1 in.	$\frac{3}{4}$ in.
Perches	4	16 in.	$\frac{1}{2}$ in.	$\frac{1}{2}$ in.	$\frac{1}{2}$ in.	diam.
Brackets	2	9 in.	6 in.	1 in.	pattern	$\frac{7}{8}$ in.

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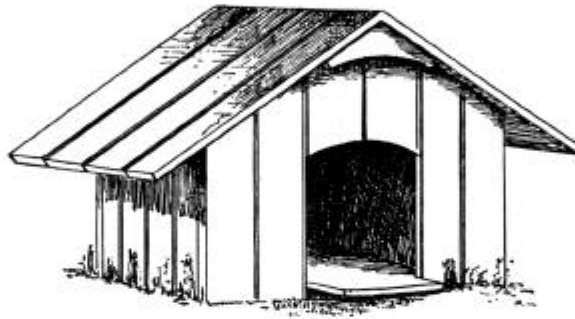


DESIGN FOR A BIRD HOUSE

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DOG HOUSE

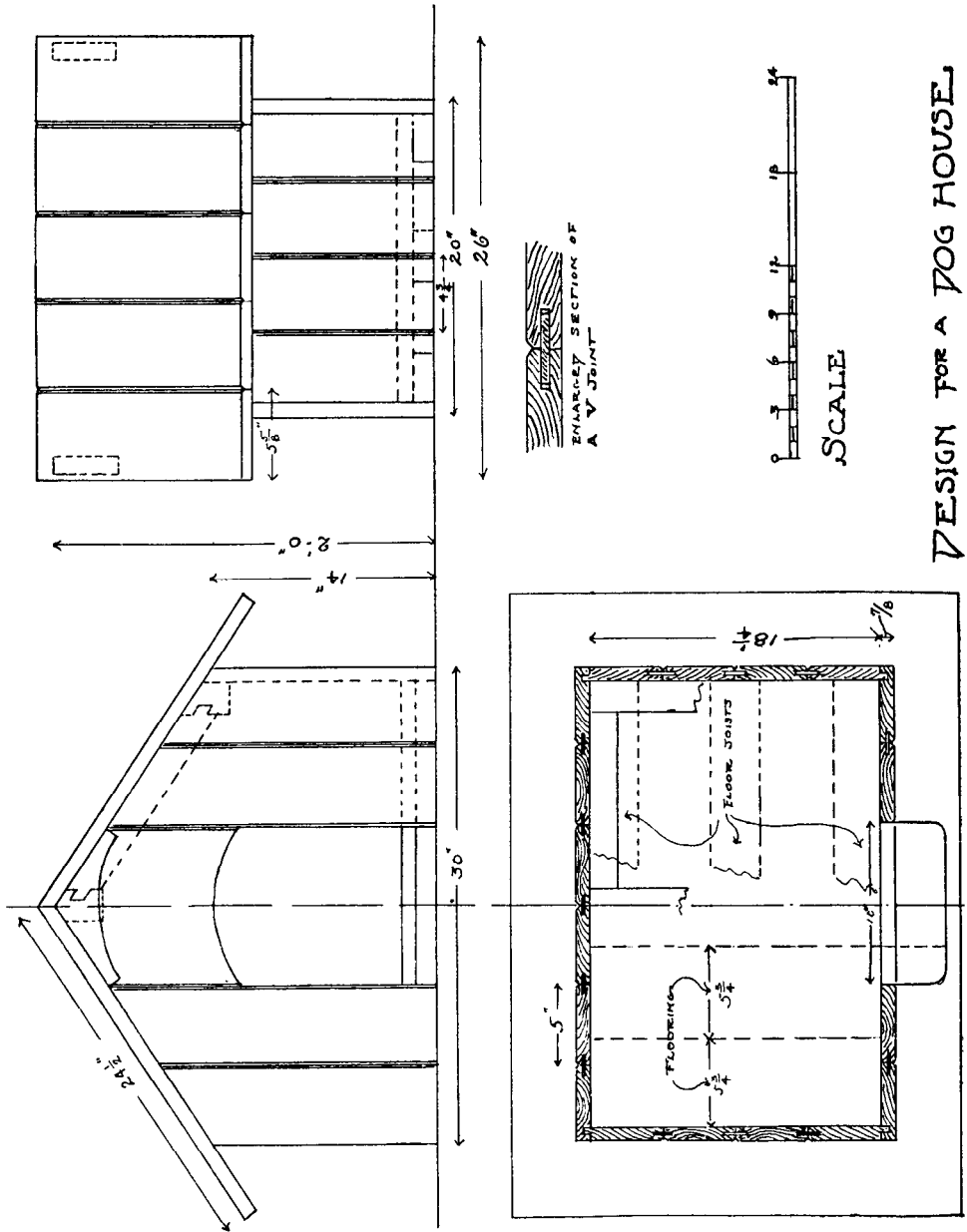
IN building the dog house, first lay down the floor joists and on them nail the floor—then put on the sides, ridge beam and rafters, which have been framed together, and the roof goes on last of all—glue and nail the parts together well, so that the house will be strong.



MILL BILL OF LUMBER FOR DOG HOUSE

	Pieces	Long	ROUGH		FINISH	
			Wide	Thick	Wide	Thick
Roof	10	26 in.	5 $\frac{7}{8}$ in.	1 in.	5 $\frac{5}{8}$ in.	$\frac{7}{8}$ in.
F. and B. siding.	12	23 in.	5 $\frac{1}{4}$ in.	1 in.	5 in.	$\frac{7}{8}$ in.
Side siding.....	8	15 in.	5 in.	1 in.	4 $\frac{3}{4}$ in.	$\frac{7}{8}$ in.
Floor	5	22 in.	6 in.	1 in.	5 $\frac{3}{4}$ in.	$\frac{7}{8}$ in.
Floor joists.....	3	29 in.	2 $\frac{3}{4}$ in.	1 $\frac{1}{2}$ in.	2 $\frac{1}{2}$ in.	1 $\frac{3}{8}$ in.
Ridge beams....	3	20 in.	3 in.	2 in.	pattern	1 $\frac{7}{8}$ in.
Rafters	4	18 in.	2 $\frac{1}{4}$ in.	1 $\frac{1}{2}$ in.	2 in.	1 $\frac{3}{8}$ in.
Brackets	2	12 in.	5 in.	1 in.	pattern	$\frac{7}{8}$ in.

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DESIGN FOR A DOG HOUSE.

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A CHILD'S CHAIR

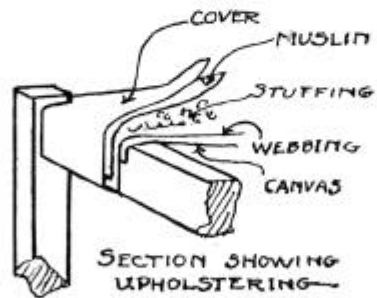
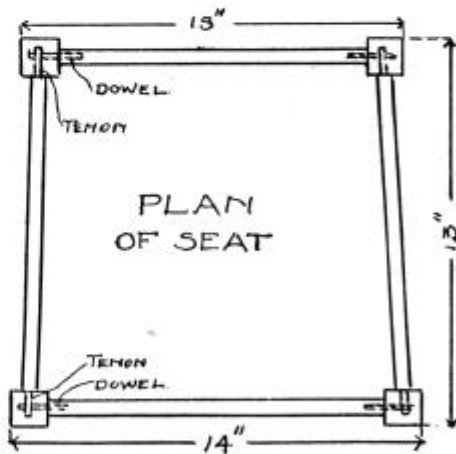
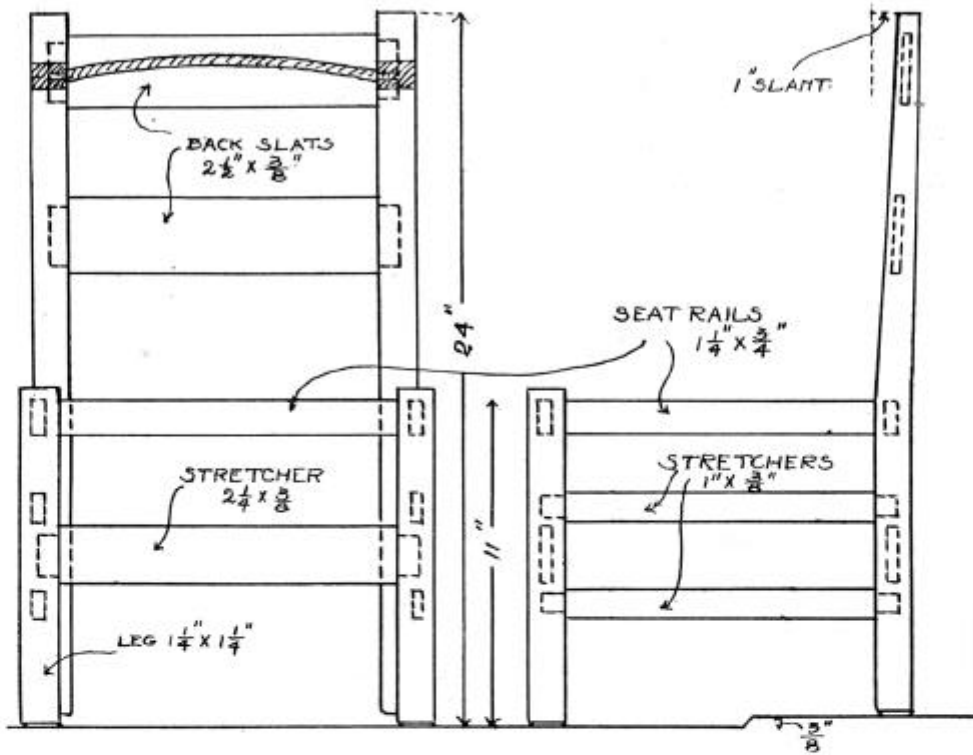
TAKE note that the side rails of the seat are morticed and tenoned—and the front and back seat rails are dowelled—thereby pinning the tenon of the side rails. This is likely to be a weak point in a chair, but if constructed as given above it is very strong. All tenons are well glued with warm glue, and the back slats are curved by pressing into shape as shown in an accompanying drawing.



MILL BILL OF LUMBER FOR A CHILD'S CHAIR

	Pieces	Long	ROUGH		Wide	Thick	FINISH	
			Wide	Thick	Wide	Thick	Wide	Thick
Front posts.....	2	12 in.	1½ in.	1½ in.	1¼ in.	1¼ in.		1¼ in.
Back posts.....	2	25 in.	2 in.	1½ in.	cut to pattern	1¼ in.		1¼ in.
Seat rails.....	4	13 in.	1½ in.	1 in.	1¼ in.	¾ in.		¾ in.
F. & B. stretcher	2	13 in.	2½ in.	⅝ in.	2¼ in.	⅜ in.		⅜ in.
Side stretchers...	4	13 in.	1¼ in.	⅝ in.	1 in.	⅜ in.		⅜ in.
Back slats.....	2	13 in.	2¾ in.	⅝ in.	2½ in.	⅜ in.		⅜ in.

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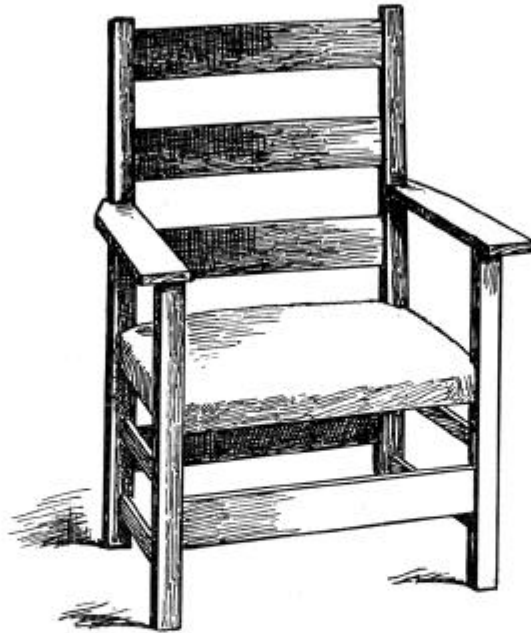


DESIGN FOR A CHILD'S CHAIR

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CHILD'S ARM CHAIR

IN building this chair put all together excepting the arms, and when the glue is dry the arm dowells are fitted and the back ones shoved into place; then, by pressure, the front will spring into its proper position. All dowells are well glued, and the glue is warmed before using. Attention is called also to the joining of the seat rails, also the three-eighths of an inch cut from the bottom of the back post after the chair is put together. This makes a little slant back to the seat, and gives a comfortable posi-

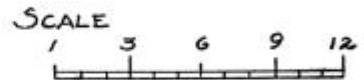
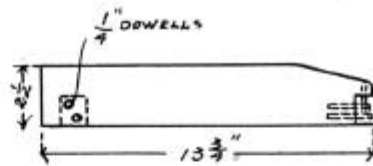
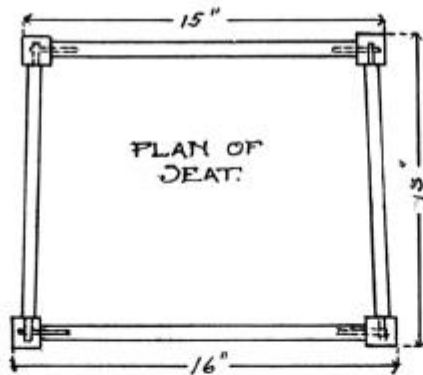
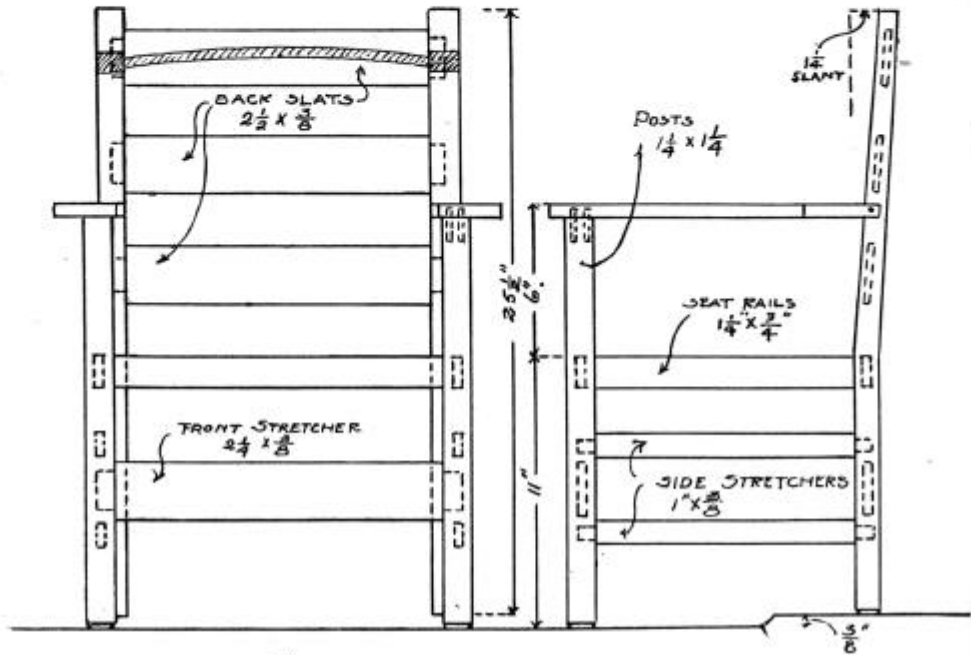


to the sitter. The back slats of the chairs are slightly curved. This is done by thoroughly wetting or steaming the wood and pressing it into shape—then allowing it to dry. The accompanying drawing will illustrate a device for this purpose, which for the amateur is quite as practical as a steam press.

MILL BILL OF LUMBER FOR CHILD'S ARM CHAIR

	Pieces	ROUGH			FINISH	
		Long	Wide	Thick	Wide	Thick
Front posts	2	18 in.	1½ in.	1½ in.	1¼ in.	1¼ in.
Back posts	2	26 in.	2 in.	1½ in.	pattern	1¼ in.
Seat rails	4	15 in.	1½ in.	1 in.	1¼ in.	¾ in.
F. & B. stretcher	2	15 in.	2½ in.	⅝ in.	2¼ in.	⅜ in.
Side stretcher . . .	4	13 in.	1¼ in.	⅝ in.	1 in.	⅜ in.
Back slats	3	15 in.	2¼ in.	⅝ in.	2½ in.	⅜ in.
Arms	2	15 in.	2¾ in.	⅞ in.	2½ in.	⅝ in.

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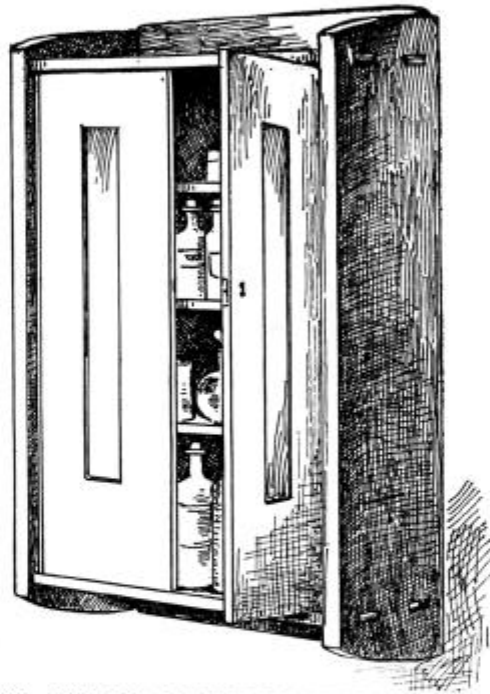
DESIGN FOR A CHILD'S ARM CHAIR



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MEDICINE CABINET

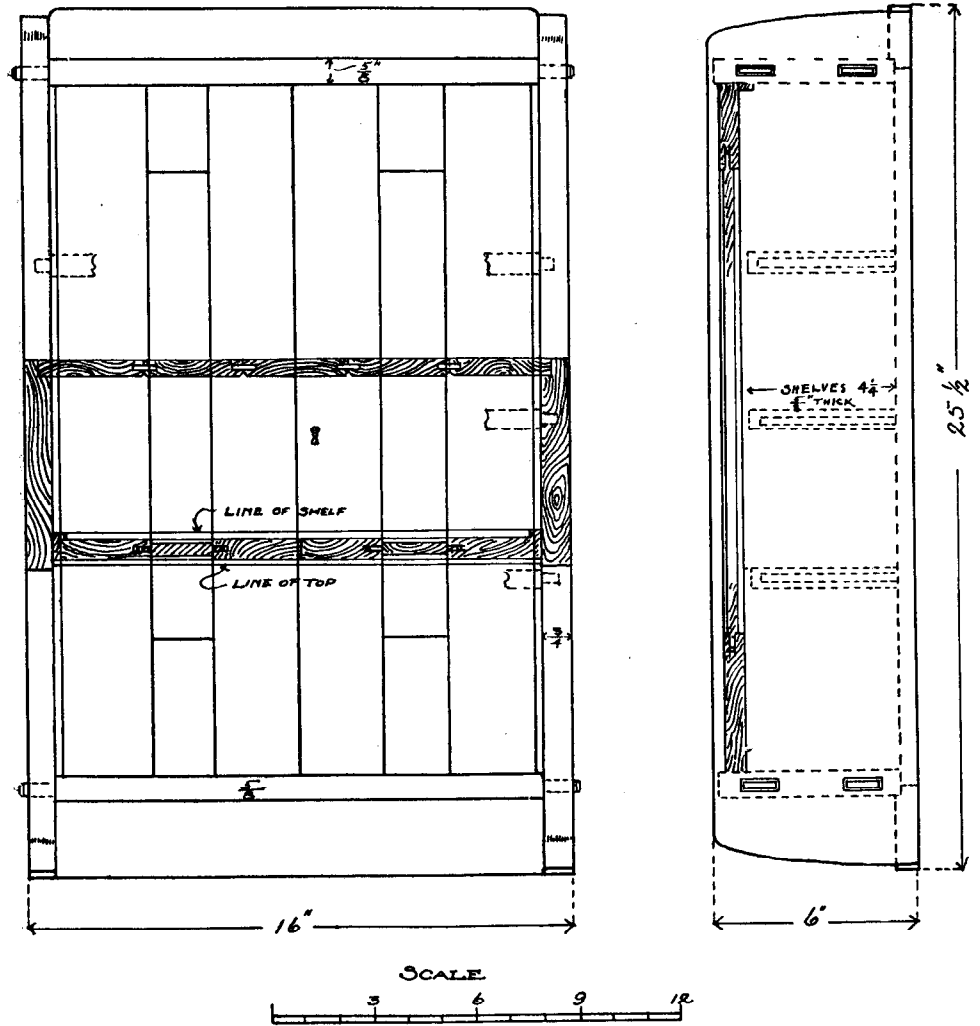
IN the medicine cabinet, one or two things that it is well to call attention to are that the stiles of the doors are rabbited and the center left one is 3-16 wider than the one on the right side, to allow for this rabbit. The shape of the top and bottom of the sides should be carefully studied so as not to become too straight or an ordinary curve—and in finishing it is well to sandpaper all the corners or edges that stand out, as it will soften the lines and beautify the piece



MILL BILL FOR LUMBER IN MEDICINE CABINET

	Pieces	Long	Rough Wide	Thick	Wide FINISH	Thick
Sides	2	26 in.	6 $\frac{1}{4}$ in.	1 in.	6 in.	$\frac{3}{4}$ in.
Top & bottom . . .	2	17 in.	5 $\frac{5}{8}$ in.	$\frac{7}{8}$ in.	5 $\frac{3}{8}$ in.	$\frac{5}{8}$ in.
Top of back . . .	1	15 in.	2 $\frac{1}{8}$ in.	1 in.	1 $\frac{7}{8}$ in.	$\frac{3}{4}$ in.
Bottom of back . .	1	15 in.	3 $\frac{1}{4}$ in.	1 in.	3 in.	$\frac{3}{4}$ in.
Back	5	22 in.	3 $\frac{1}{4}$ in.	$\frac{3}{4}$ in.	3 in.	$\frac{1}{2}$ in.
Stiles	4	21 in.	2 $\frac{3}{4}$ in.	$\frac{7}{8}$ in.	2 $\frac{1}{2}$ in.	$\frac{5}{8}$ in.
Top rail	2	3 in.	3 in.	$\frac{5}{8}$ in.	2 $\frac{3}{4}$ in.	$\frac{3}{8}$ in.
Lower rail	2	3 in.	4 $\frac{1}{4}$ in.	$\frac{5}{8}$ in.	4 in.	$\frac{3}{8}$ in.
Shelves	3	16 in.	4 $\frac{1}{2}$ in.	$\frac{3}{4}$ in.	4 $\frac{1}{4}$ in.	$\frac{5}{8}$ in.
Door stops	2	21 in.	1 $\frac{1}{4}$ in.	$\frac{3}{4}$ in.	1 in.	$\frac{1}{2}$ in.
Door stops	1	15 in.	$\frac{3}{4}$ in.	$\frac{1}{2}$ in.	$\frac{1}{2}$ in.	$\frac{1}{4}$ in.

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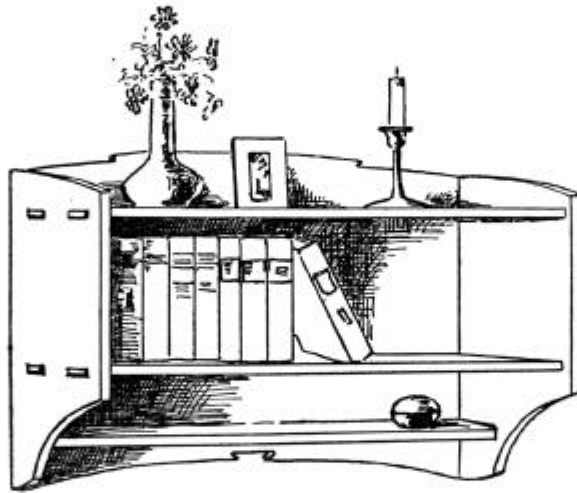


DESIGN FOR A MEDICINE CABINET

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WALL CABINET

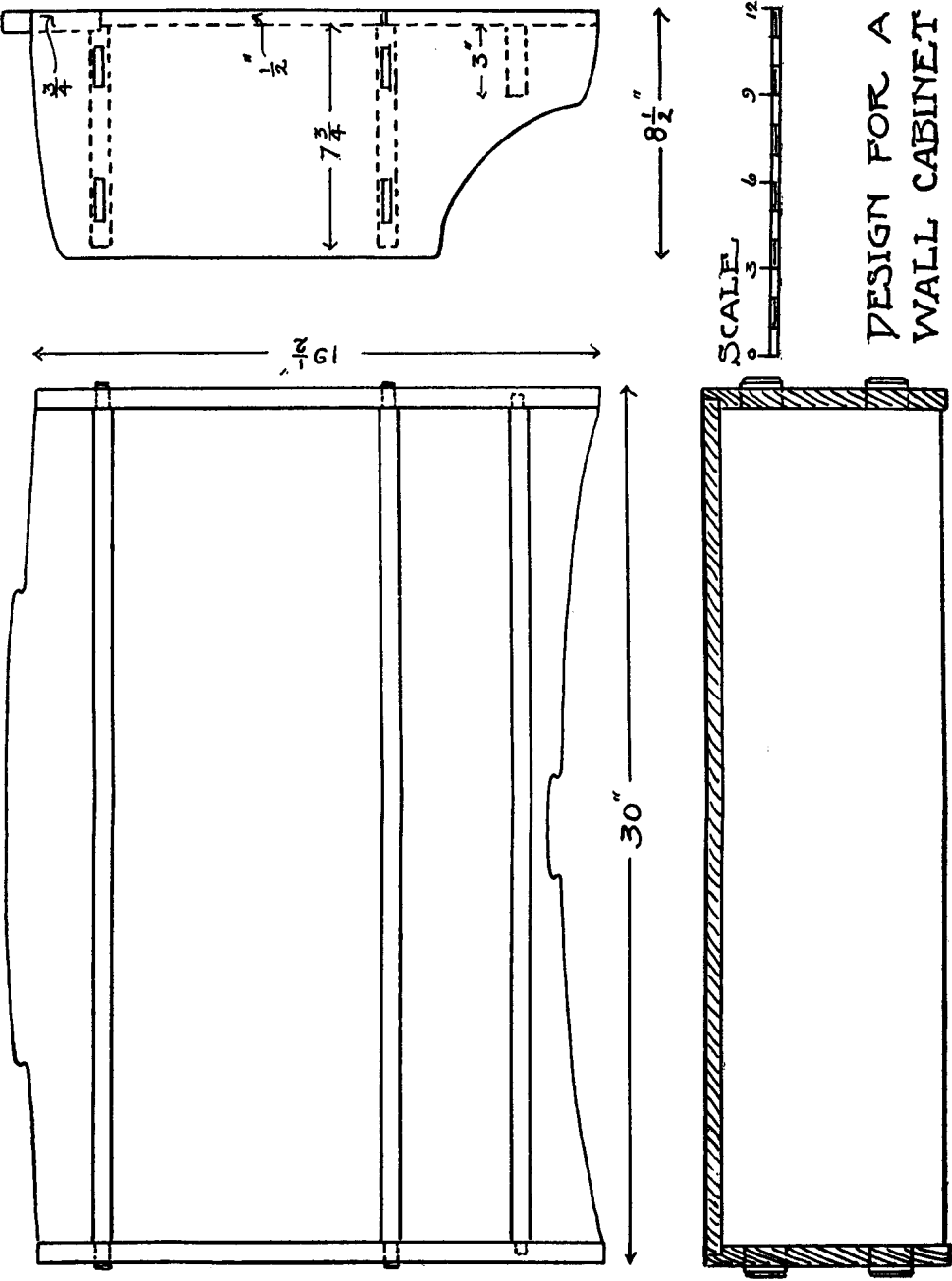
THE whole charm of this wall cabinet lies in the subtlety of the curves in it, and a number of trials may be necessary to the builder of it, but perseverance will repay, as a thing that is worked over is almost invariably better than the first attempt. In bringing the tenons through the ends, the projection should be just as slight as possible and allow the chamfering of the edges of the tenon.



MILL BILL OF LUMBER FOR WALL CABINET

	Pieces	Long	Rough Wide	Thick	Wide FINISH	Thick
Ends	2	21 in.	8 $\frac{3}{4}$ in.	1 in.	8 $\frac{1}{2}$ in.	$\frac{3}{4}$ in.
Shelves	2	31 in.	8 in.	1 in.	7 $\frac{3}{4}$ in.	$\frac{3}{4}$ in.
Small shelf	1	31 in.	3 $\frac{1}{4}$ in.	1 in.	3 in.	$\frac{5}{8}$ in.
Top of back	1	30 in.	4 in.	1 in.	pattern	$\frac{3}{4}$ in.
Back	1	30 in.	10 in.	$\frac{3}{4}$ in.	9 $\frac{3}{4}$ in.	$\frac{1}{2}$ in.
Back	1	30 in.	10 in.	$\frac{3}{4}$ in.	pattern	$\frac{1}{2}$ in.

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At the outset of the series I have shown a variety of things in order to appeal to a wider audience, and to broaden the scope as much as possible, within the necessary limits. My purpose is to lay the foundation for an all-round equipment, that can be utilized to suit the requirements of individual aims and capacity, whether limited to the building of a dove cote, a piece of fine interior work or a house-boat.

In each case the structural qualities will be prominently brought out, and this feature should form the basis of our first lesson.

In the choice of woods it is important that we select the kind best suited to the requirements of the piece we are to make. If our article is to be plain and primitive in construction, as, for example, the child's chairs shown in our illustrations, woods should be chosen that have a texture and color quality, like the oak, chestnut, and brown ash, which, when properly finished, will be found to add much to the satisfying quality of the piece and make up for many seeming defects.

If the piece is to be exposed to the weather, as in the case of the bird house or dog kennel, cypress, spruce, California red wood and white cedar give the most pleasing effects when finished with the well known "shingle stains" or with linseed oil, to which the desired color has been added, and then left to weather.

This simple process of treating surfaces can be developed to a high degree of artistic tone and texture, and later in these talks I shall tell you something about how to select special woods for special purposes, and how to treat the surfaces in order to bring out all the natural beauty of the grain without destroying it with varnish, or hiding it under a coat of paint.

A handwritten signature in cursive script, reading "Gustav Stickley". The signature is written in black ink and is positioned in the lower right quadrant of the page.