

A Homemade Hawaiian Ukulele

By S. H. SAMUELS

THE one-string banjo, the cigar-box guitar, and similar vaudeville favorites are giving way to the tantalizing ukulele, and the home mechanic, to be up to date in his musical craftsmanship, must fall in line. The size of this instrument makes it especially suited to the cigar-box type of body construction, as detailed in the several



This Cigar-Box Ukulele Cost the Maker 30 Cents, and Affords Him the Pleasures of a More Expensive One

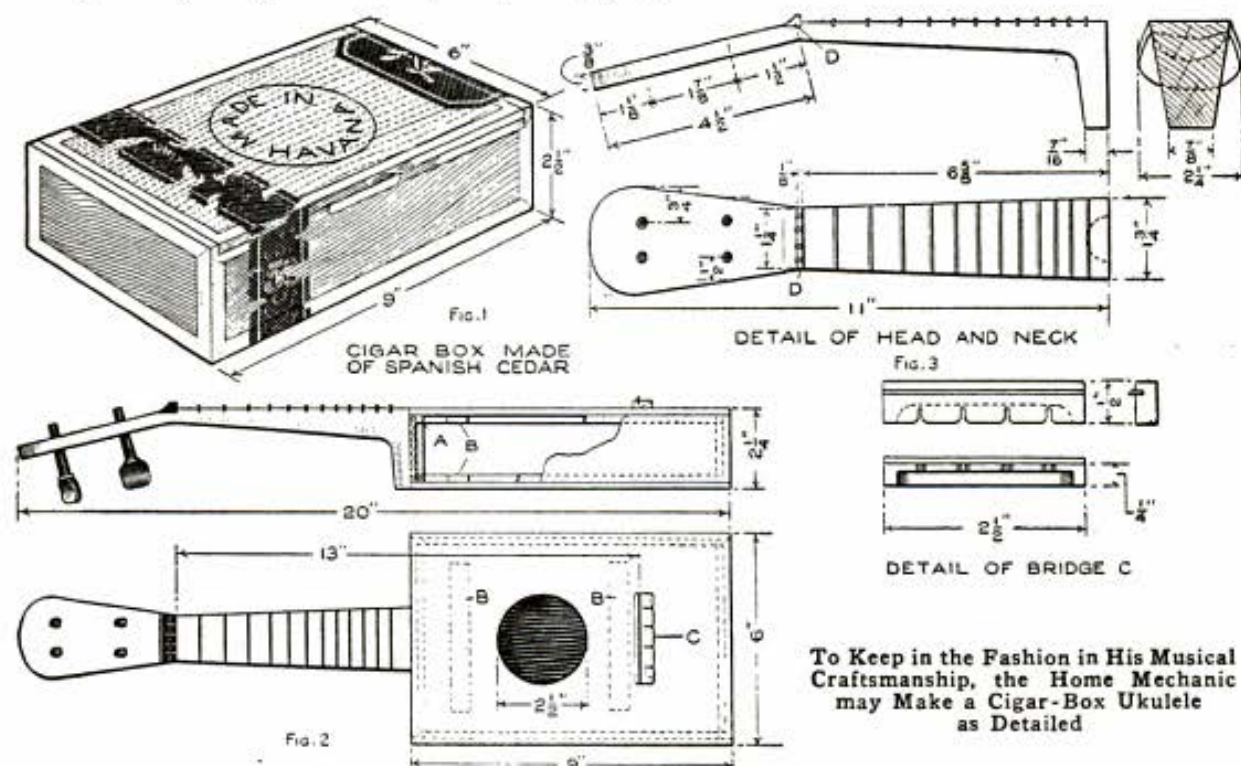
sketches and shown in the photograph reproduced. This neat ukulele was

made at a cost of 30 cents, by careful selection of materials from the shop scrap stock.

A cigar box of good-quality Spanish cedar, about $2\frac{1}{2}$ by 6 by 9 in., as shown in Fig. 1, is used for the body. Remove the paper carefully, so as not to mar the surface, soaking it if necessary. Take it apart, and if the nail holes are too numerous, or broken out, trim off the edges. Fit the parts of the body together, as shown in Fig. 2, the top and bottom pieces resting against the side and end pieces, and the latter between the sides. Cut the $2\frac{1}{2}$ -in. hole in the top piece, as shown, $3\frac{3}{4}$ in. from the neck end. To reinforce the body make strips A, $\frac{1}{4}$ in. square, and fit them to be glued into the corners at the top and bottom. Make strips B,

$\frac{1}{4}$ by $\frac{5}{8}$ by $4\frac{1}{2}$ in., and glue them under the top and on the bottom as indicated in Fig. 2. The final assembling and gluing of these parts, using

by $\frac{3}{16}$ in. and cut grooves $\frac{1}{8}$ in. deep for them. The spacing of the frets is determined as follows, a standard practice: The distance from the metal



To Keep in the Fashion in His Musical Craftsmanship, the Home Mechanic may Make a Cigar-Box Ukulele as Detailed

animal glue, should be done after the bridge C is in place, and the other parts are made. The bridge is of hard wood hollowed underneath the notched edge, as detailed, and is fitted with a metal string contact.

Spanish cedar or mahogany is suitable for the neck, detailed in Fig. 3. A single piece is best, but the extension for the pegs and the wider end at the body may be joined and glued to the main portion of the neck. Dowels should then be used to reinforce the joints. The outline of the parts of the neck are shown in detail in Fig. 3. In the sectional view at the right, the shape of the neck at the thinnest and thickest parts is shown by the two upper curved, dotted lines. The nut D is made of mahogany, walnut, or other hard wood, the grain extending lengthwise, and the notches for the strings spaced as shown.

The making and spacing of the frets must be done very carefully. They are of aluminum, brass and other metals being suitable also. Make the frets $\frac{1}{16}$

string-contact on the bridge to the nut should be measured carefully. The first fret, near the head, is $\frac{1}{18}$ of this distance from the nut, the total length being in this instance, 13 in. The second fret is set $\frac{1}{18}$ the distance from the first fret to the bridge; the third, $\frac{1}{18}$ from the second fret to the bridge, etc. The frets must fit tightly in the grooves, requiring no special fastening. The tuning pegs may be bought or made.

In assembling the parts, fasten the end of the body to the neck, with glue, reinforced by screws. Set its upper edge parallel with the fingerboard, and so that the latter is flush with the top of the body, when fitted to it. Assemble the body, without the top, gluing it to the end, fixed to the neck. When this portion is thoroughly dried, fit the top into place finally, and glue it. The whole construction is then cleaned, sandpapered, stained, and shellacked or varnished. The stringing of the instrument is simple, and the strings may be purchased in sets.