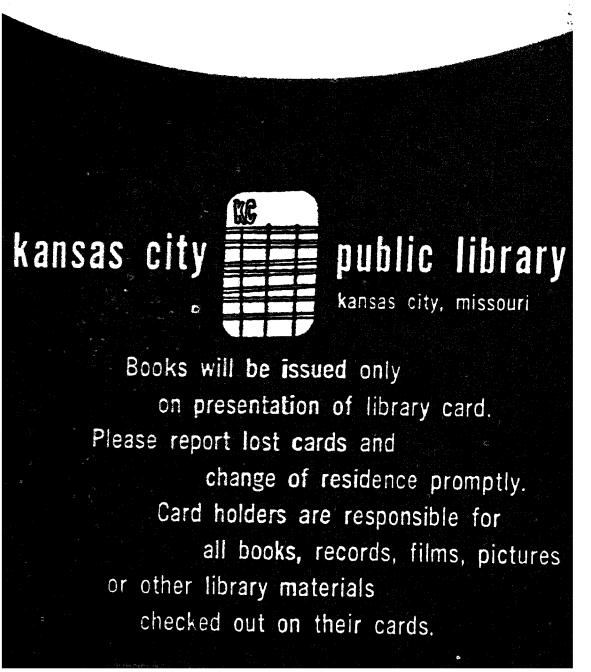

JOSEPH LEEMING
ASSISTED BY AVERY LEEMING

It's Easy to Make Music

HOW TO PLAY ALL THE POPULAR INSTRUMENTS

FRANKLIN WATTS, INC.

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This book is dedicated to
Margaret Scoggin
whose idea it was, and whose help was invaluable to the author.

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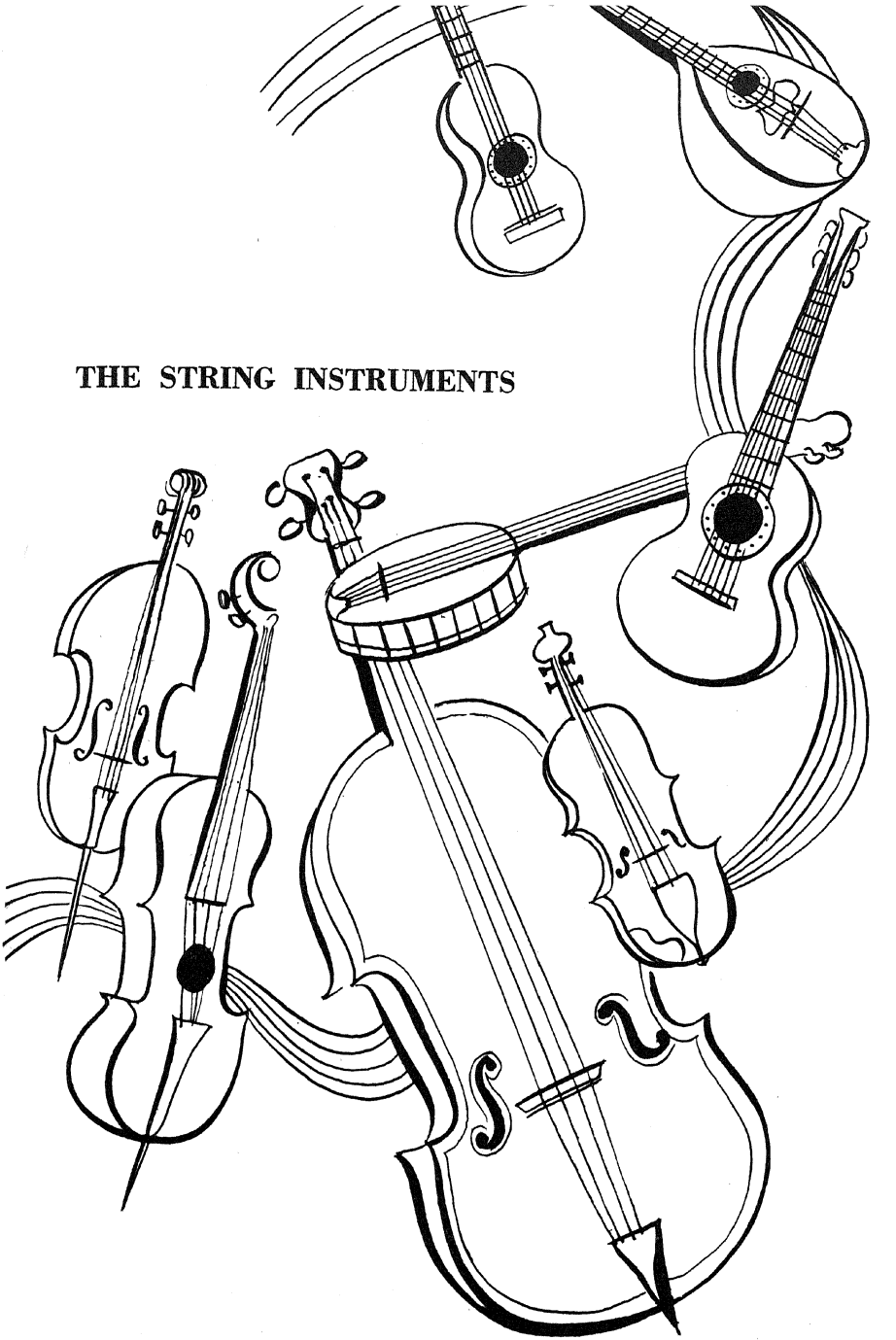
THE STRING INSTRUMENTS



Chapter 4
THE UKULELE

FOR ACCOMPANYING singing, the soft and mellow harmony of the ukulele has few superiors. It is a wonderful instrument for accompanying informal group singing, either out-of-doors on summer nights or around the fire during a winter evening.

One reason for the ukulele's great popularity is the ease with which it can be played. It calls for no technical knowledge of music and is probably the easiest to play of all the stringed instruments. The average person should be able to strum a tune or play an accompaniment of rich and harmonious chords after no more than a few hours of experimenting and practicing.

One thing that is a great help to beginners is that in music arranged for the ukulele, the chords that are to be played are usually indicated by fingerboard diagrams printed over or under the notes. These diagrams will help you to use correctly the chords described in this chapter.

The Strings and Notes of the Ukulele

The ukulele has four strings, which are tuned to the notes A, D, F# and B. The strings, together with the piano notes to which they correspond and the position of the notes in printed music, are shown in Fig. 17. You will notice right away that the fourth string is tuned differently from the fourth strings on other stringed instruments. Instead of being lower in pitch than the other three strings, it is almost as high in pitch as the first string.

The ukulele is tuned to the piano notes to which its strings correspond. The method of tuning a stringed instrument is described in "Tuning the Violin" in the chapter on "The Violin"

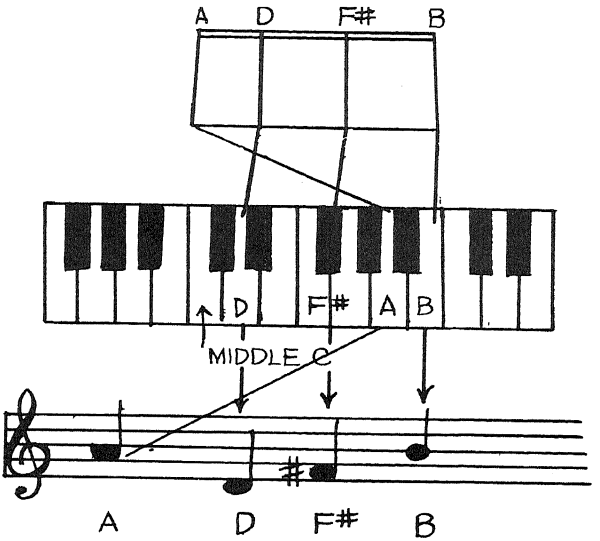


FIGURE 17

which we would ask you to please refer to for a full explanation.

If no piano is available you can tune your uke as follows:

Tighten the first or B string until it is taut and gives off a clear tone. This will probably make it sound pretty close to the tone B.

Put a finger against the second fret of the fourth or A string and then tighten the A string until it sounds exactly the same as the B string. What you do here is to "stop" the A string with your finger in the position that makes the tone B. After you have tuned, remove your finger and the open A string will sound A.

Put a finger against the fifth fret of the second or F# string (the position to make the tone B on this string). Tighten the second string until it sounds exactly the same as the B string. Release your finger and the open string will sound F#.

Put a finger against the fourth fret of the third or D string (the position to make F# on this string). Tighten the D string until it sounds exactly like the F# string. Release your finger and the open string will sound D.

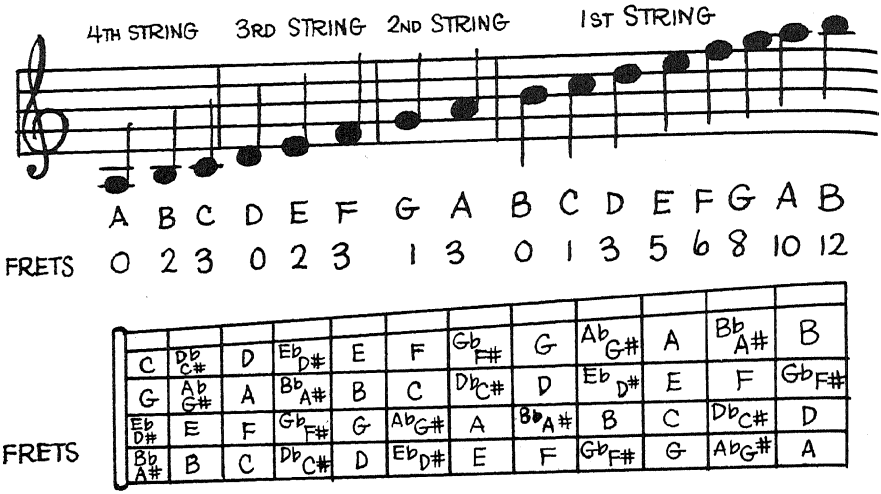


FIGURE 18

Fig. 18 shows the range of the ukulele and the notes that you make by putting your fingers against the different frets (raised cross pieces on the fingerboard). To avoid confusion in the diagram of the staff, the notes of the A or fourth string are written an octave lower than they actually sound. You will not need to learn all these notes at the beginning, since for the most part you will only use a few of them. Furthermore, since the uke is played by strumming chords on it rather than playing melodies one note at a time, the thing you have to do is to learn the chords rather than the single notes. This figure is put in here, so you can always refer to it to spot any of the notes.

In the drawing of the fingerboard in Fig. 18, we have shown both sharps and flats, which puts two notes at some of the frets. Actually, these notes signify the same sound, but they are written with a sharp when the music is in a sharp key and with a flat when the music is written in a flat key.

FIGURE 19

How the Ukulele Is Played

The ukulele is held as shown in Fig. 19 and is usually played by strumming the strings with the fingers. There are two methods of striking the strings—the plain stroke and the roll stroke.

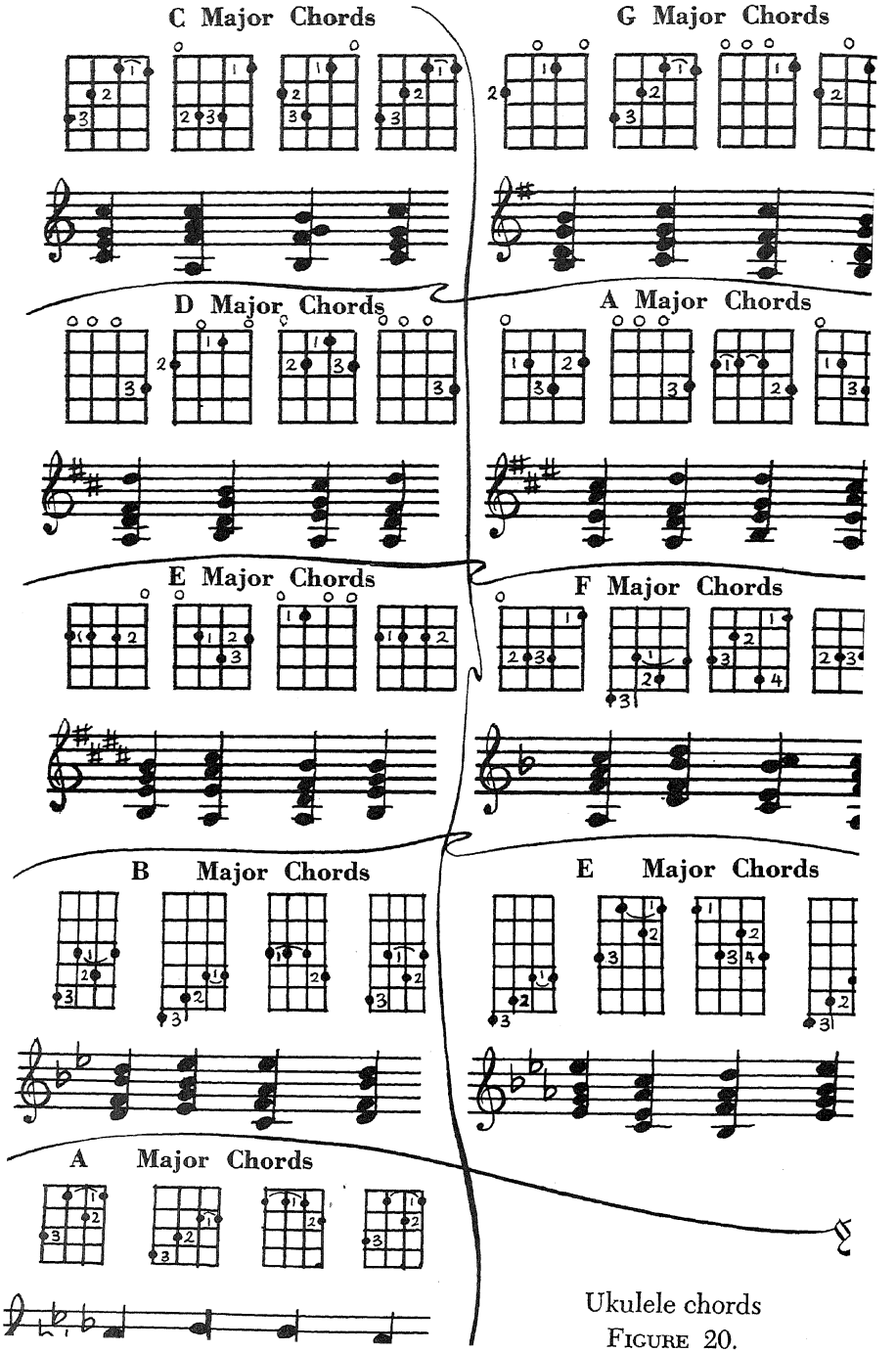
The plain stroke is made with the first finger of the right hand. It should be held perfectly limp to get the best effects. Stroke it down over the strings, just above the sound hole of the instrument, striking the strings with the fingernail. Then stroke it up across the strings, striking them with the fleshy part of the finger tip.

Some players like to use the thumb when making the plain stroke. To do this, combine the thumb with the first finger, striking down with the ball of the thumb and the nail of the first finger and coming up with the fleshy part of the tip of the first finger alone.

The best strumming effects are obtained with the roll stroke. You play the downward roll by striking the strings with the nails of all the fingers, beginning with the little finger, and completing the stroke by striking the strings with the ball of the thumb. Play the upward roll in exactly the opposite way. Move the hand up across the strings, striking them first with the nail of the thumb, followed by the fleshy parts of the tips of all four fingers.

Now Learn Some Chords

You have only to learn a few chords to be able to play the ukulele and accompany almost any song or piece of dance music. We are giving you in Fig. 20 diagrams that show how to make the chords you will need to play in nine different keys.



Ukulele chords

FIGURE 20.

Old Folks at Home

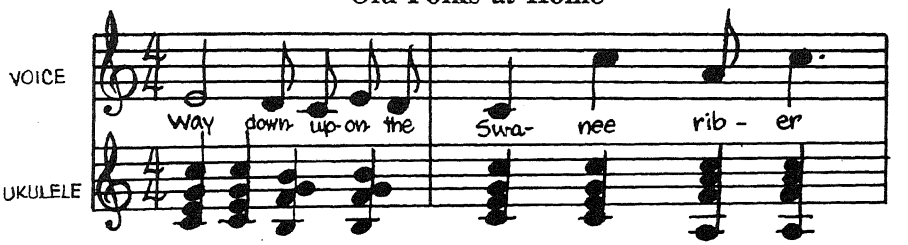


FIGURE 21

These are about all the keys you are likely to find music written in.

Please try not to be bothered by the keys like E major which has four sharps, and Ab major, which has four flats. If you come across music written in these keys, just look at the chord diagrams for them and you will know what chords to play. With the ukulele it is just as easy to play in these keys as in the good old key of C, which has no sharps or flats.

Three different chords are given for each key. This is so you can vary the chords, using first one and then another as they fit in with the melody. An example of how the three different C major chords are used in this way is given in Fig. 21, which shows the opening measures of Stephen Foster's "Old Folks at Home."

Where to put your fingers on the strings to make the different chords is indicated by the numbers in Fig. 20. Do not put your fingers on the frets. Put them just behind the frets on the side toward the head of the uke.

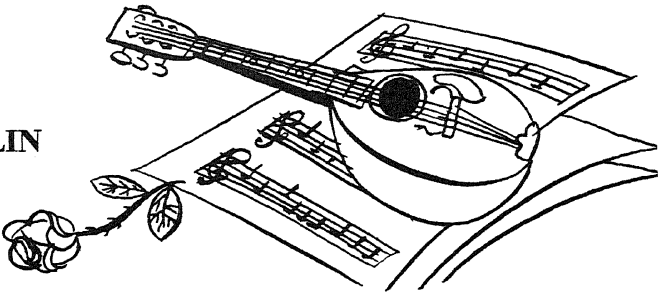
Notice that in some chords two or even three notes are made with one finger. See the first C major chord for an example, where two notes are joined by a curved line. This is called the barre.

Start with the C major chords and practice strumming all four chords shown. The first and fourth chords are the same.

Then practice the opening measures of "Old Folks at Home" (Fig. 21).

What you will need next is a book of songs or some copies of some popular music you like. Get these at a music store or ten-cent store and go to work on them. If you can get books written specially for the ukulele, this will be a help as they will show you what chords to use. But this is not really necessary. All you have to do is to look at the key a piece of music is written in (the number of sharps or flats), and then use the chords shown for that key in the diagram in Fig. 20.

Chapter 5
THE MANDOLIN



THE MANDOLIN is a grand all-round instrument and one of the easiest of the string instruments to learn to play. Originally it was very popular to use as an accompaniment to singing, and many people can remember sitting by picnic camp fires or drifting in a canoe on a moonlit night while everybody sang "In the Evening By the Moonlight" and other old favorite songs to someone's tinkling on the mandolin.

Later, the mandolin was taken up by schools and colleges, many of which had mandolin clubs and orchestras. Today it is still a favorite for accompaniments to singing, either alone or with a piano, and is also used in some dance bands. Music written specially for the mandolin includes solos for the mandolin alone or with guitar or piano accompaniment.

On the mandolin you can play any song melody in any key directly from the music.

The Mandolin's Strings and Notes

The mandolin has four double strings, which are tuned to the tones of E, A, D and G (Fig. 22). The two strings of each pair are tuned exactly alike in pitch and each double string is spoken of simply as one string.

The notes on the piano and on the staff to which the strings are tuned are shown in Fig. 23. Please see the section on "The Violin" for directions as to how to do the tuning.

Fig. 24 shows the natural notes (without sharps or flats) that are most commonly used on the mandolin. The figure also shows the positions of the left hand fingers required to make the notes. The numbers *above* the notes show which left-hand

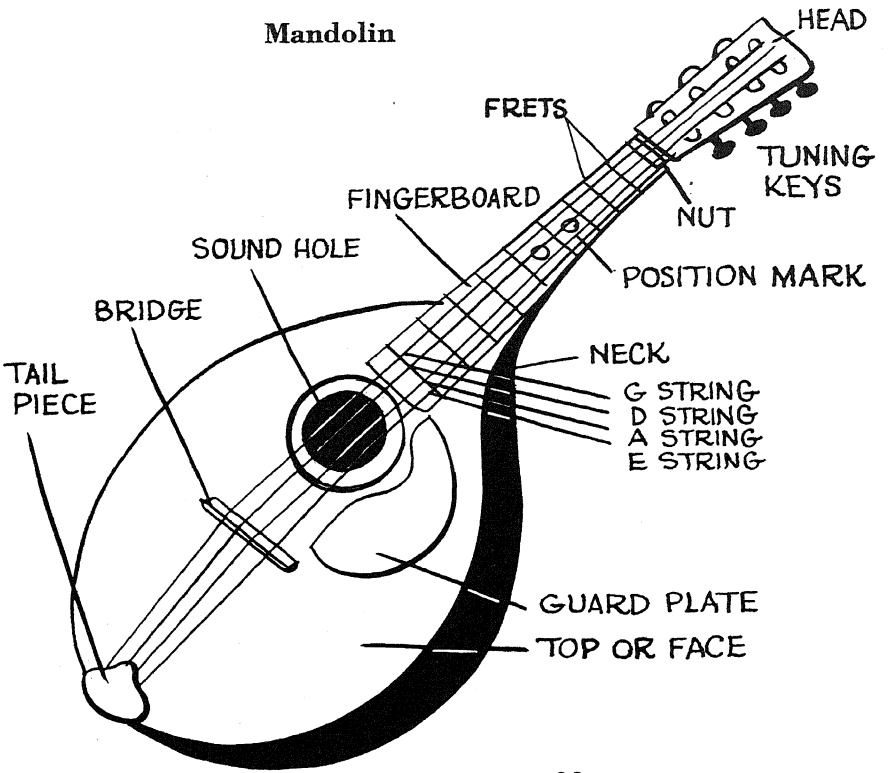


FIGURE 22.

finger to place on the string. The numbers *below* the notes show which fret to put your finger against. The fingers are not placed on top of the fret but against its upper side. The sign O in Fig. 24 means an open string—the note is the tone of the string itself untouched at any point by a finger.

Sharps and Flats

The frets (raised cross pieces) on the neck and fingerboard of the mandolin are spaced one half-tone apart. Since a sharp is one half-tone higher than the note that is sharped, all you have to do to play a sharp on the mandolin is to move your finger up to the next fret beyond the note.

Notice in Fig. 24, for example, the position of the note F on the first string. You make F by putting the first finger of the

right hand against the first fret. To make F#, one half-tone higher, just move your first finger up to the second fret.

A flat is a half-tone lower than the note that is flatted. Accordingly, to make a flat on the mandolin, simply move your finger back to the next fret toward the head of the instrument.

Take Bb as an example, because it is the flat you see most often. Notice in Fig. 24 that you make the note B by putting your first finger against the second fret of the second string. To make Bb, just move your finger back to the first fret of the second string.

For ready reference, Fig. 25 shows all the notes of the mandolin. Only the sharps are shown, but remember that the sharp of one note may be the flat of the note next above it. Thus, F# on the first string is also Gb—a note, by the way, that you will seldom have to use. Eb is very often used and in Fig. 25 it is the same as D#.

How the Mandolin Is Played

When playing the mandolin seated, you should rest the body of the instrument on your right leg and support the neck with your left hand. Let the lower side of the fingerboard rest on your left first finger, on the first joint nearest to the palm of

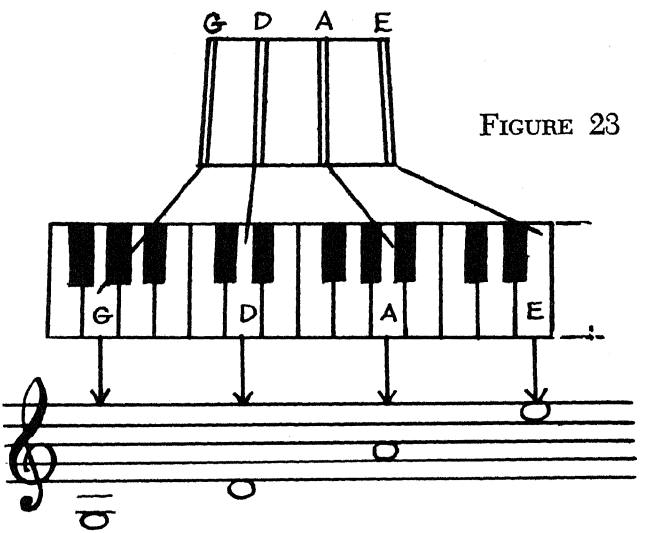


FIGURE 23

your hand. The left thumb should rest on the top side of the fingerboard about even with the second fret.

The mandolin is played with a small pick or plectrum, which is held between the thumb and first finger of the right hand.

When you first start to pick out notes and play easy tunes, use a down stroke for each note. This means to move the pick in a downward direction across the string you want to strike. You should let your hand swing freely up and down from the wrist when striking with the pick. Thus, in making a down stroke, first swing the pick upward toward your face, pivoting your right hand on the wrist. Then swing your hand and the pick down, again pivoting your hand on the wrist, and let the pick strike the string and slide quickly over it to come to rest against the next string. When you strike the first string there is, of course, no next string for the pick to come to rest on.

The tremolo is used a good deal in mandolin playing. It consists of a rapid up-and-down movement of the pick over one string. On the mandolin, of course, one string means a pair of strings, as we have already mentioned. The tremolo is used most often on half notes and whole notes in order to sustain their tone for the correct length of time.

Now Try to Play "Yankee Doodle"

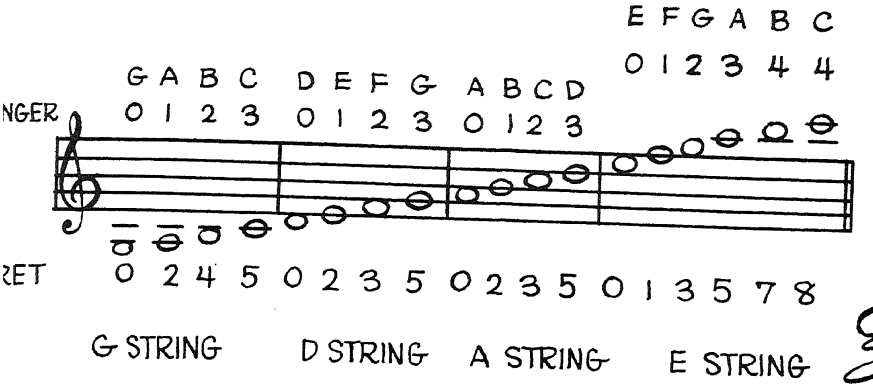
As soon as you have learned the most commonly used notes (those which are on or near the staff), you should have no difficulty in picking out simple tunes, playing them slowly at first, and then, after some practice, as fast as you wish.

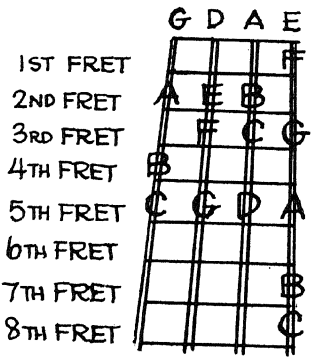
Fig. 26 is the tune of "Yankee Doodle" written in the key of G (one sharp). It contains only seven different notes—D, E, F, G, A, B, and C. These are played on the second and third strings, as you will see by looking back at Fig. 24.

Start out by playing G on the third string. Put your third finger against the fifth fret and keep it there while you downstroke the string twice. That makes the first two notes.

Play the second note—A—on the open second or A string.

FIGURE 24





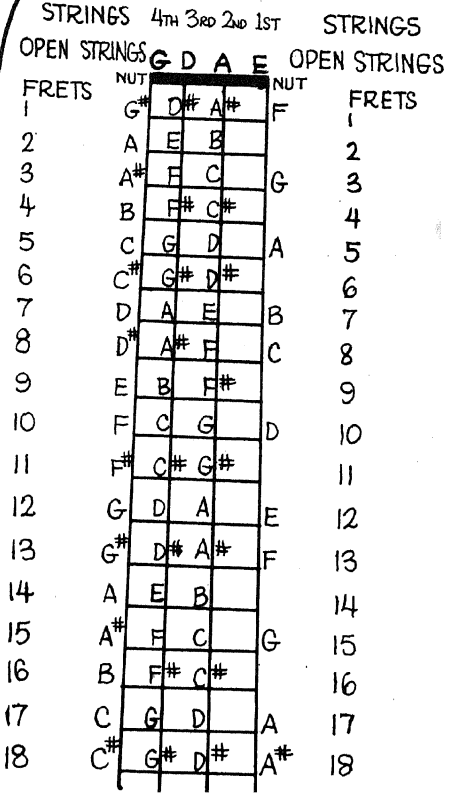


FIGURE 25

Mandolin Notes and Strings

Play the third note—B—on the second string, putting your first finger against the second fret.

If you have not yet learned to read written music quickly, write in the letters of the notes above or below the notes in the music.

Mandolin Chords

In addition to playing melodies one note at a time, the mandolin is used a good deal for playing chord accompaniments for songs. To make it as easy as we can for you to learn the most commonly used chords, we are illustrating them in the following five figures. These show the principal chords used when playing music written in the keys of C, G (1 sharp), D (2 sharps), F (1 flat) and Bb (2 flats), and give the fingering for each chord.

For an explanation of the three chords given for each key, please see the section on "Guitar Chords" in the chapter on "The Guitar."

Yankee Doodle

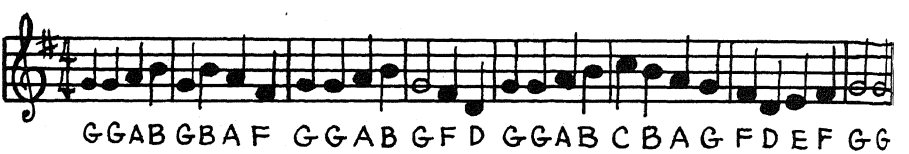


FIGURE 26

Chords in C

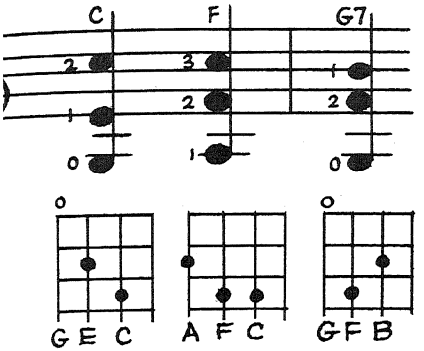


FIGURE 27

Chords in G

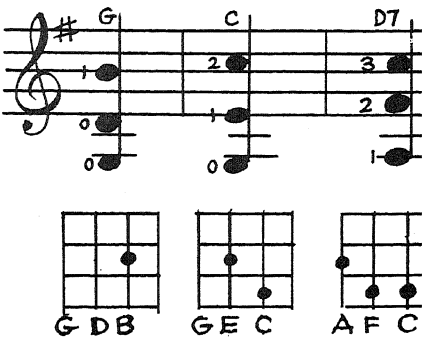


FIGURE 28

Chords in D

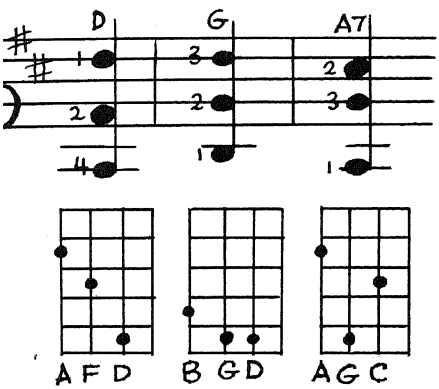


FIGURE 29

Chords in F

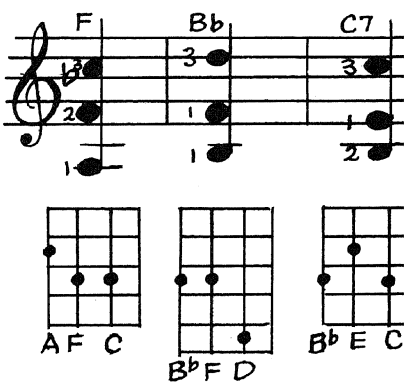


FIGURE 30

Chords in B♭

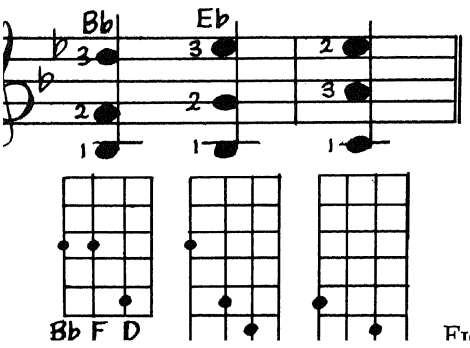
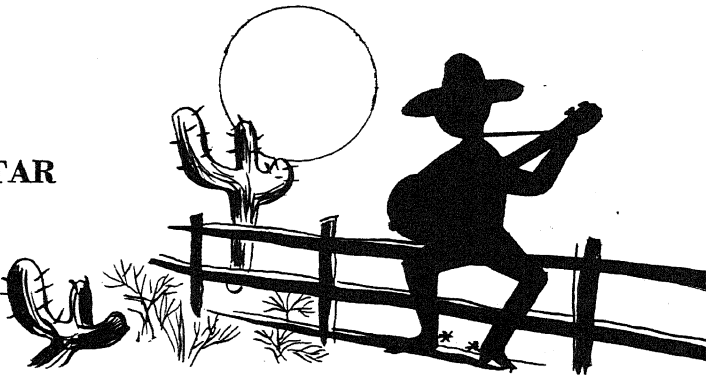


FIGURE 31

Mandolin Chords

Chapter 6
THE GUITAR



THE GUITAR is most popular perhaps with people who love to sing and want to be able to play their own accompaniments on this wonderful and versatile instrument. It is the traditional instrument that goes with cowboy and hill-billy songs, ballads and folk music; and it is a favorite with people who like to sing and play the old favorites like "Juanita," "The Spanish Cavalier," "Drink To Me Only With Thine Eyes," and dozens of others. The guitar is also a grand instrument for a dance band, where its strong vibrant chords furnish a provocative background for the other instruments.

Most people today play the guitar with a pick or plectrum. This is held in the right hand (Fig. 32), while the fingers of the left hand make the notes on the guitar's six strings. The pick is held tightly, as shown, between the thumb and first finger.

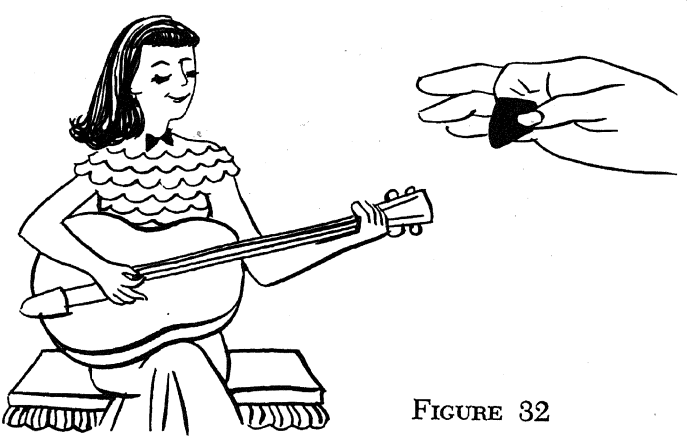


FIGURE 32

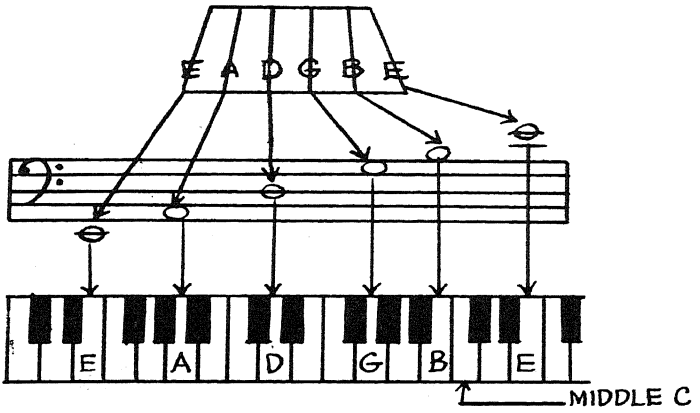


FIGURE 33

The Guitar's Strings

The guitar has six strings, E, A, D, G, B and E, which are shown in Fig. 33, together with the piano notes with which they correspond. Note that the tones of the guitar's open strings are so low that they are written in the bass clef.

Music for the guitar is written in the treble clef, as for any other instrument. But when you play, for example, the note C in the treble clef, the guitar gives out the note C an octave lower. All notes on the guitar sound one octave lower than written in treble clef music.

Tuning the Guitar

The guitar is tuned from a piano or from a pitch pipe, in the same manner as the violin. How to tune is fully described in the section on "The Violin."

Playing the Guitar Notes

The first thing to do is to learn how to make the different notes on the guitar. This is done by placing your fingers on the strings at positions already indicated by the frets or raised cross pieces on the neck and fingerboard of the guitar. The fingers are not placed directly on top of the frets, but at a slight distance above them, or toward the head of the instrument.

(Fig. 34).

The frets on a guitar are one half tone apart. Remember this always.

Fig. 35 shows the range of natural notes (without sharps or flats), which are generally used on the guitar, together with the positions of the left-hand fingers as they make these notes. Careful study of this figure and a little practice will enable you to master most of the notes in a short time. Concentrate chiefly on the notes on the staff itself. These are the ones you will use most often.

In Fig. 35 the numbers *above* the notes show which left-hand finger to place on the string. The numbers *below* the notes show what fret to put the finger on. The sign O means an open string—just play the string without touching it with a finger. This figure is condensed but comprehensive. Take your guitar and start to figure out the notes, one string at a time. You will soon get the hang of it.

Playing sharps and flats on the guitar is quite simple. You always know that a sharp is a half-tone higher than the note that is sharped, and a flat is a half-tone lower. The frets on the guitar are always a half-tone apart. To make F#, therefore, you simply move your finger up to the next fret beyond F. This is shown in Fig. 35. This figure also shows the position of the commonly used B flat, which is in the same position as A#.

Playing Simple Tunes

The average person should be able to play simple tunes on the guitar at the end of the first week—or even before. Playing tunes that you know is the quickest way to get familiar with the location of the different notes on the guitar's fingerboard, and the fingers with which to make them. This is partly because you can tell at once if you strike a wrong note. Refer to Fig. 35, if you need to, as it shows you exactly where each note is.

To play the tunes, you will need a book with a number of songs in it. If possible, get a book arranged specially for the guitar, as it will usually show you the fingering for each note

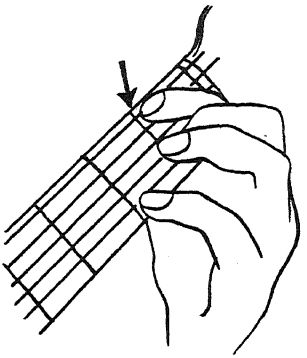
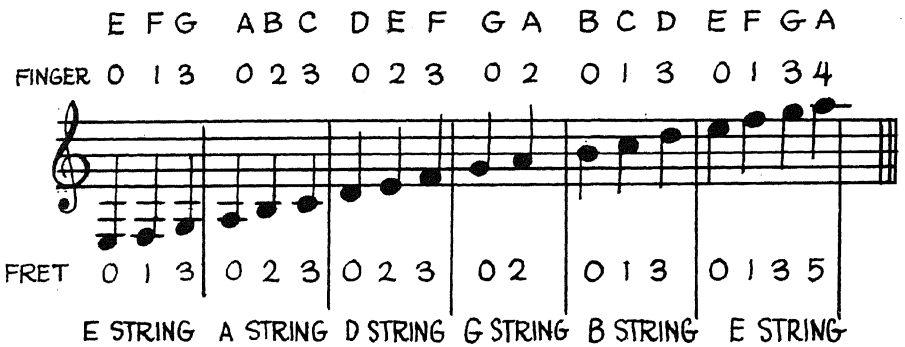


FIGURE 34



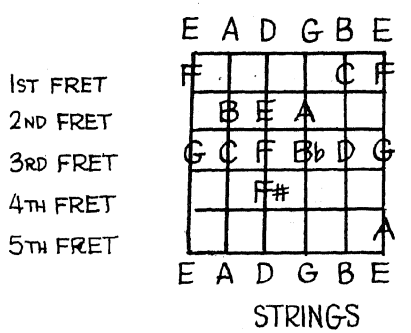


FIGURE 35

printed directly above the note. Play "Oh, Susannah," "Old Black Joe," "My Old Kentucky Home," and other similar melodies, one note at a time, until you are able to pick out the most-used notes quickly and instinctively—without having to stop to figure out their location each time.

Guitar Chords

The guitar is most often used to accompany someone who is singing or to provide a resonant background for other instruments, as in a dance band. In both cases, the guitar does not play the melody on single notes, but most often plays a single note, then a chord, another single note, another chord and so on.

The greatest fascination of the guitar is learning how to play as many chords as you can—but take your time about it. First learn the chords needed to play in the key of C, G (1 sharp), D (2 sharps), F (1 flat), and B flat (2 flats). These will enable you to play a very great number of pieces. Later on, you can add little by little to your collection of chords.

The chords most frequently used for playing melodies in the key of C and the bass notes with which they are commonly played are shown in Fig. 36. The names of the chords are shown by the letters above the staff.

There are three principal chords in each key. The tonic chord is the ordinary or major chord based on the first note of the scale. For C chords, this chord is based on the note C. Major chords are made up of the first, third and fifth notes of any scale. Thus, C—E—G is a major chord.

The subdominant chord is a major chord based on the fourth note in the scale. In the key of C, the fourth note is F, so this chord features the note F.

The third principal chord in each key is the dominant seventh chord. It is based on the fifth note of the scale. In the key of C, the fifth note is G, and the bottom note of the dominant seventh chord is G.

In Fig. 36 and those for the other keys, the chords are given

in order—tonic, subdominant and dominant seventh. Before each chord is written the note on which it is based. The notes and chords are arranged as they are commonly played on the guitar when it is being used to accompany a song. The numbers beside the notes tell which fingers to use.

In music written for the guitar the chords to be used are indicated by letters printed above the staff and by chord diagrams. The symbol for a dominant seventh chord is the letter name of the chord (the fifth in the scale) followed by 7.

Figures 37 to 40 show the chords for the keys of G, D, F and B flat.

To illustrate how the bass notes and chords are used in accompanying a song, Fig. 41 shows the opening measures of "Old Black Joe," written in the key of C.

First you play the bass note E, then strum the three C chords. In the third measure you change to the F chord, then go back to C.

As you play the accompaniments to different tunes (which are printed in music specially written for the guitar), you will soon learn when to use the different chords. You can go a long way with the simple chords illustrated in this section.

Chords in C

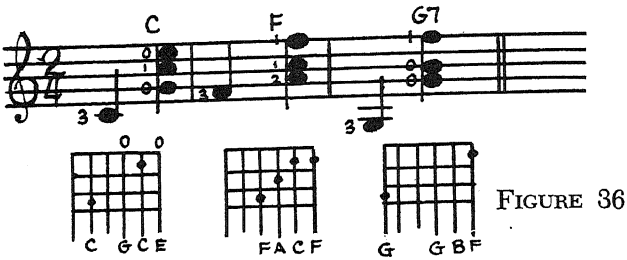


FIGURE 36

Chords in G

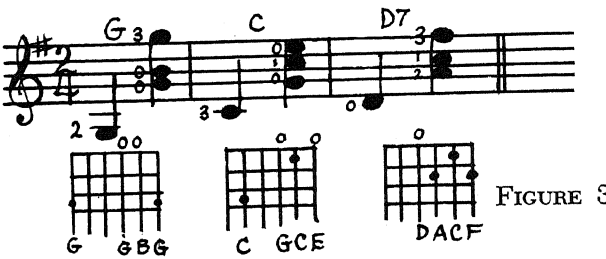


FIGURE 37

Chords in D

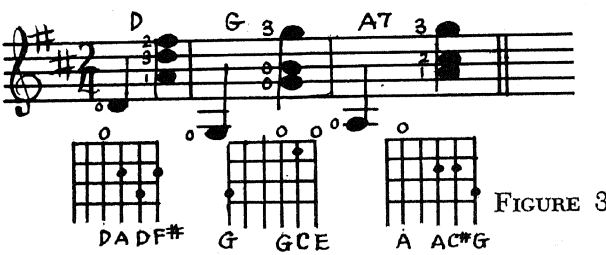
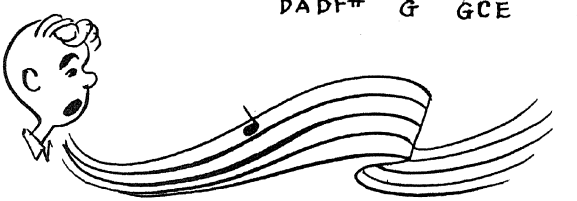


FIGURE 38



Chords in F

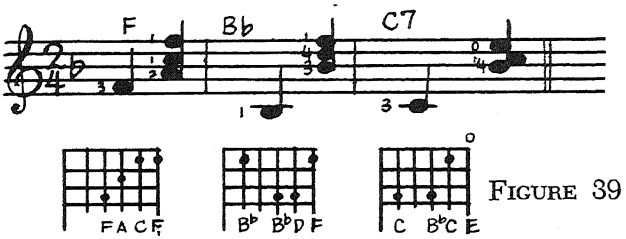


FIGURE 39

Chords in B

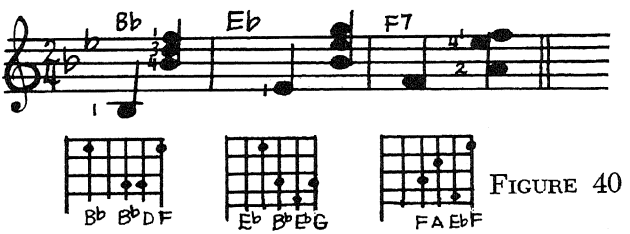
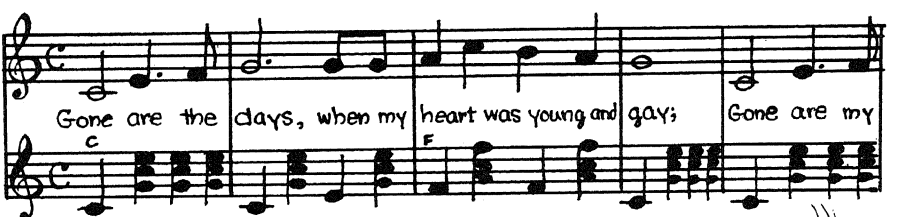


FIGURE 40

Old Black Joe

FIGURE 41



Chapter 7
THE HAWAIIAN GUITAR

BECAUSE OF the beautiful singing quality of its music and the ease with which people can learn to play it, the Hawaiian Guitar has become very popular in this country. It is also called the Steel Guitar, because of the way it is played, the strings being held down with a steel bar instead of the left-hand fingers. It is this steel bar, called a "steel," which produces the peculiar, haunting tones that are characteristic of the instrument.

A regular guitar is changed for the Hawaiian method of playing by inserting a special steel nut which raises the strings entirely clear of the frets (Fig. 42). This is put in place by loosening the strings and slipping it over the nut on the guitar.

You should have a standard set of Hawaiian guitar strings for steel playing, and these can be furnished by any music store. The first three strings are plain wire strings, and the

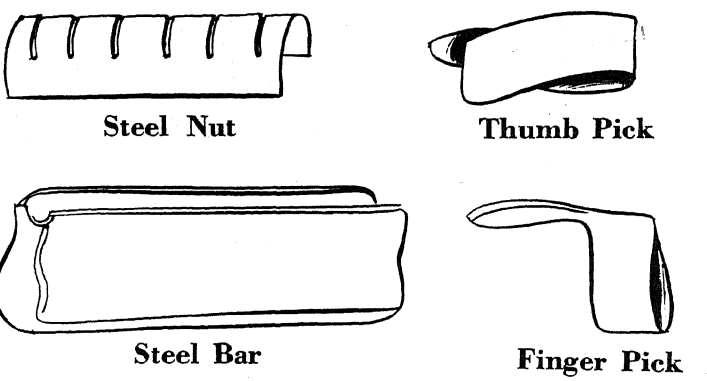


FIGURE 42

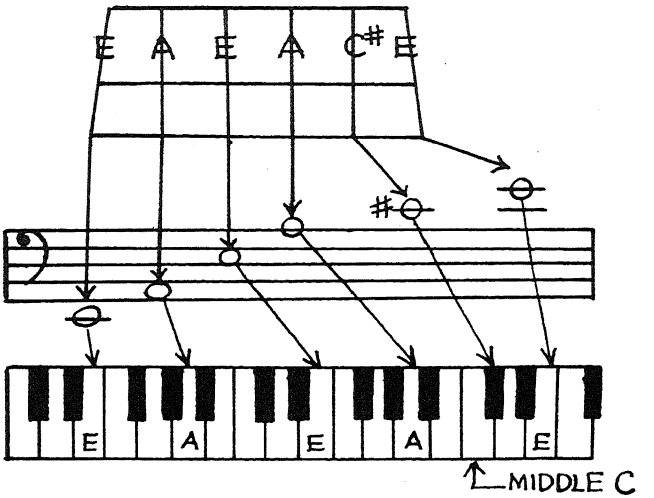


FIGURE 43

heavier fourth, fifth and sixth strings are wound or wire-wrapped.

The strings are tuned differently from those of a regular guitar, the strings from left to right being tuned E, A, E, A, C#, E (Fig. 43). When the open strings are struck, they produce a perfect A-chord. Fig. 43 shows the piano notes to which the strings of the guitar correspond.

Tune your Hawaiian Guitar, one string at a time, by striking the note on the piano to which it corresponds and then tightening or loosening the string. If no piano is available, use a pitch pipe, which your music store will provide.

If you use a pitch pipe for tuning, you must tune each string a full octave lower than the tone produced by the pipe. You can check your tuning by "stopping" each string at the twelfth fret, which means to put a finger on the string at a point just above the fret. Then pick the string and, if correctly tuned, it should produce the same tone as the pipe for that string. This is because "stopping" the string at the twelfth fret raises its tone a full octave.

Playing the Hawaiian Guitar

The Hawaiian Guitar is played sitting down, with the body of the guitar resting on your right thigh, and its neck resting on your left thigh (Fig. 44). The guitar is slanted a little to the left, which permits the left hand to move freely up and down the fingerboard. The right elbow rests on the guitar, at its lower edge.

The steel bar is held in the left hand between the first finger and the base of the thumb. The first finger rests along the top of the steel. When playing, it is placed lightly on the strings, with very little pressure. The third and fourth fingers rest on the strings behind the steel.

It is the pressure of the steel on a string that produces the note you want. Where to place it to produce the different notes is described in the next section.

On your right thumb you put the thumb pick (Fig. 42) and on your right first and second fingers you put the two finger picks. The first and second fingers are used to pick the first and second strings. The thumb plays the remaining four strings, moving down or away from you, and also plays chords, sweeping downward across several strings.

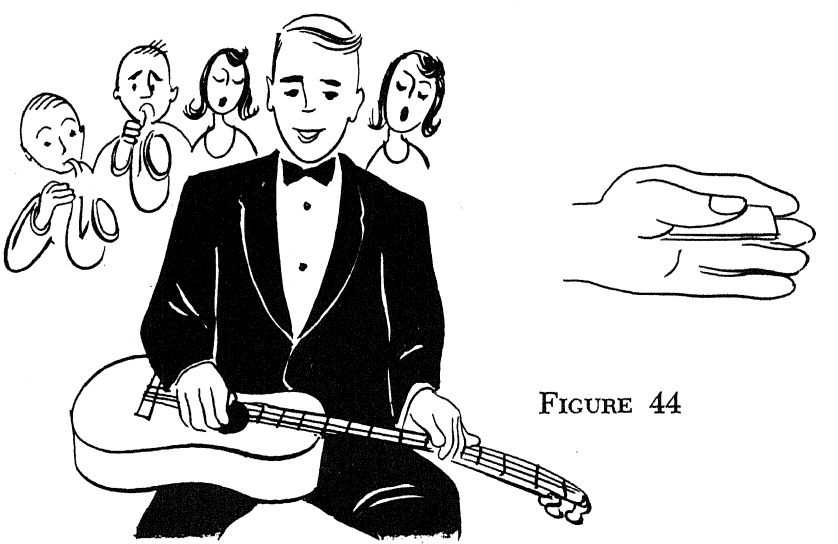


FIGURE 44

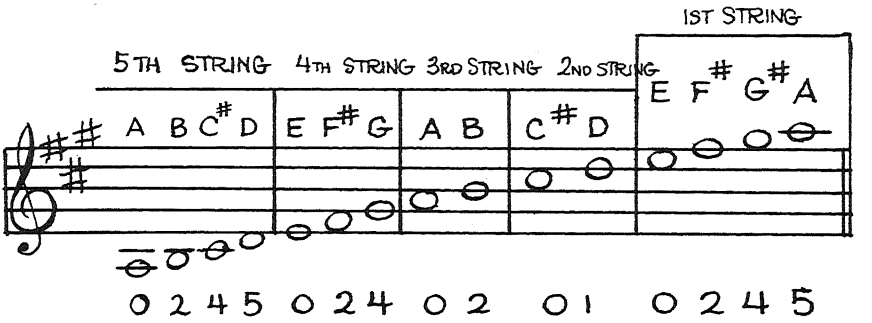


FIGURE 45

Learning the Notes

We are giving two sets of notes, Figs. 45 and 46, to help you learn how to make the notes on a Hawaiian Guitar.

Fig. 45 shows the notes you will use most often. They are shown arranged in the scale of A major, which has three sharps, F#, C# and G#. This is the easiest for a beginner to learn, owing to the way the guitar is tuned. The letters on top give the names of the notes. The numbers under the notes show the frets over which you hold the steel in order to produce the notes. That is all you have to do—put the steel over the fret indicated and then pick the string. The symbol O means an open string. Do not use the steel.

Practice playing the notes in order to get a good idea of where they are, so you can find them when you see them written in music.

Fig. 46 shows all the notes that can be produced on each string. Play up and down each string, moving the steel from fret to fret and naming each note out loud as you pick it and listen to it sing. You will not ordinarily need all these notes, but they are included just in case you might want to use some of them some time.

Notice that most of the notes can be made on more than one string, thus, all the notes on the first string from E (the first

note) to F# can also be made on the second string. All the notes on the second string from C# (the first one) to D can be made on the third string, and so on. Most of the music for the Hawaiian Guitar takes care of this for you by indicating on which string to play each note.

The notes in Fig. 46 are shown with sharps. You can make the flats, however, by remembering that the sharp of one note may be the flat of another note. Thus Bb, the one you see most often, is the same as A#; and Eb, also seen a great deal, is the same as D#.

Now You Can Play a Tune

If you have learned how to make the notes in Fig. 45, you can easily play a tune such as "Aloha Oe" and other Hawaiian tunes, as well as old favorites like "Good Night Ladies," "Old Black Joe" and so on. We would say that the sooner you start "picking out" these tunes the better. Get a book of songs or of pieces arranged for the Hawaiian Guitar, and start to play real music as fast as you can. The Hawaiian Guitar is an easy instrument to play, so we have little hesitation in saying that you should be able to master almost any melody in your music book within two or three weeks.

The Glide and the Vibrato

One of the effects that makes the Hawaiian Guitar so popular and so fascinating to listen to is the glide, or, as it is often called, "sliding the steel." This is done by putting the steel on a fret to produce a certain note, picking that note with the right hand, and then sliding the steel up or down to another note. It is easier to do the glide on the first string than on the others, so practice it first on the first string. It is very easy to do, as you will find when you experiment, and it makes a fascinating effect that is peculiar to the Hawaiian Guitar alone.

In music arranged for the Hawaiian Guitar you are told to slide the steel by a slanting line printed above the two notes involved.

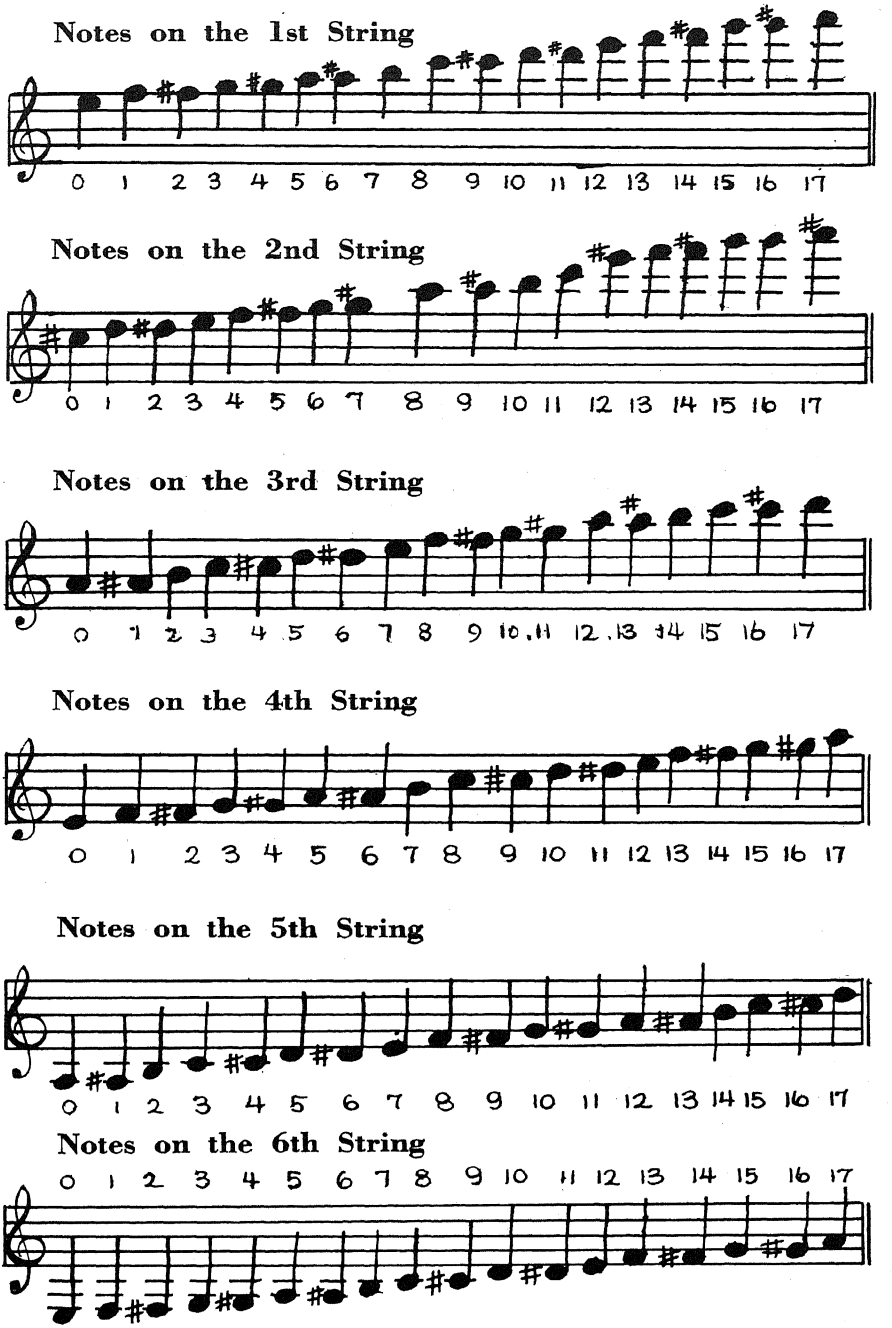

Notes on the 1st String
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Notes on the 2nd String
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Notes on the 3rd String
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Notes on the 4th String
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Notes on the 5th String
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Notes on the 6th String
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

FIGURE 46

The vibrato or tremolo produces another beautiful effect and is used to sustain a note or keep it singing for a moment or two. The vibrato is accomplished by moving the steel quickly back and forth over the fret on which it has been placed to produce a note. Hold the steel firmly and at first practice moving it slowly back and forth. Increase the speed of the movement as you continue to practice. The steel should be moved only a fraction of an inch to each side of the fret.

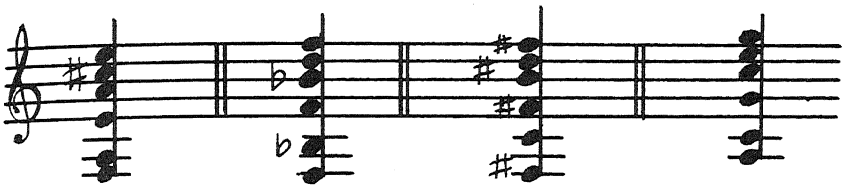
Hawaiian Guitar Chords

You can obtain beautiful effects from the Hawaiian Guitar by playing chords. The chords can be used in conjunction with single notes when playing a melody or can be strummed as an accompaniment for a song.

The major chords are all very easy to form on the Hawaiian Guitar because of the way it is tuned. All you have to do is put the steel straight across the strings at any fret and you will have a beautiful harmonious chord. This is called "barring with the steel."

The chords formed with the open strings and the chords formed by placing the steel on the different frets are shown in Fig. 47.

Experiment with the different chords until you get familiar with them. Take a simple melody written in the key of C to begin with and play the C major chord (3rd fret) and the F major chord (8th fret) as an accompaniment. First one chord and then the other, as they fit in with the melody. As you play tunes in different keys you will soon learn by ear how to use the right chords. A good deal of the music arranged for the Hawaiian Guitar tells you what chords to use and this will be a help to you as it has been to all other beginners.

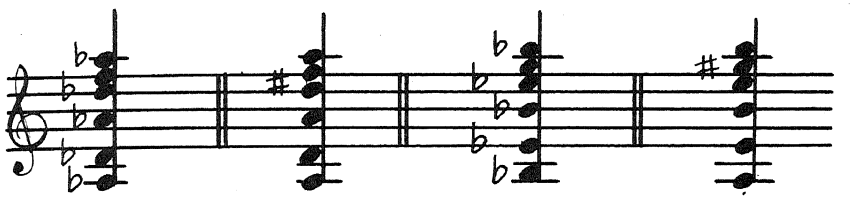


OPEN STRINGS
A MAJOR CHORD

1ST FRET
B MAJOR CHORD

2ND FRET
B MAJOR CHORD

3RD FRET
C MAJOR CHORD

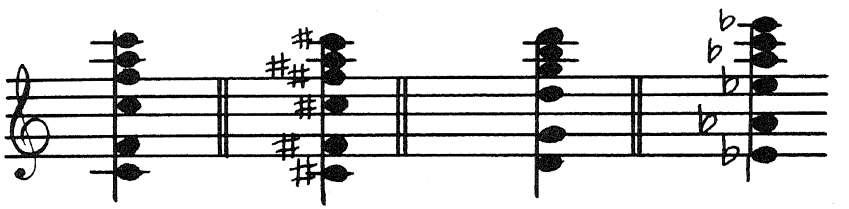


4TH FRET
D♭ MAJOR CHORD

5TH FRET
D MAJOR CHORD

6TH FRET
E♭ MAJOR CHORD

7TH FRET
E MAJOR CHORD

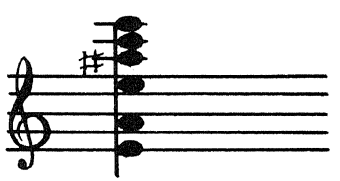


8TH FRET
F MAJOR CHORD

9TH FRET
F# MAJOR CHORD

10TH FRET
G MAJOR CHORD

11TH FRET
A♭ MAJOR CHORD



12TH FRET
A MAJOR CHORD

(ONE OCTAVE HIGHER THAN
ON OPEN STRINGS)

Hawaiian guitar chords

FIGURE 47.

Chapter 8
THE TENOR BANJO

THE TENOR BANJO, with its distinctive vibrant tone, is now one of the most popular stringed instruments. The modern banjos are beautiful instruments fitted with wood resonators that amplify and improve the volume and tone and help produce the clear and powerful sound of the notes. A lot of people have a good time playing solos on their banjos, and others like to play with a dance orchestra. The instrument is a favorite for both purposes.

The Tenor Banjo has gradually supplanted the old-style banjo which is seldom seen nowadays. The old banjo had five strings, whereas the Tenor Banjo has four, and the tuning of the two instruments is entirely different. This section deals with the Tenor Banjo only, and for convenience sake, we will usually call it simply a banjo.

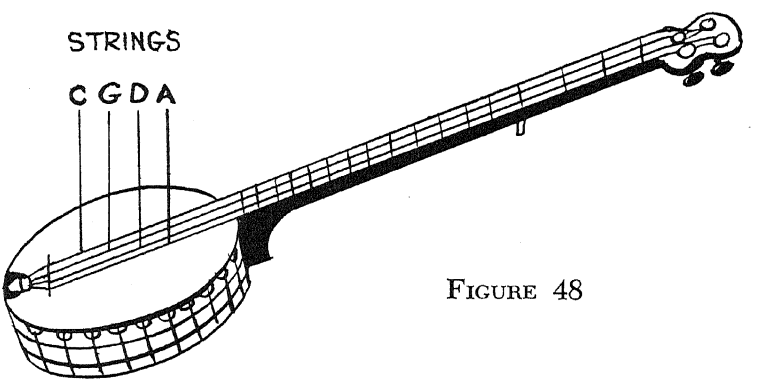


FIGURE 48

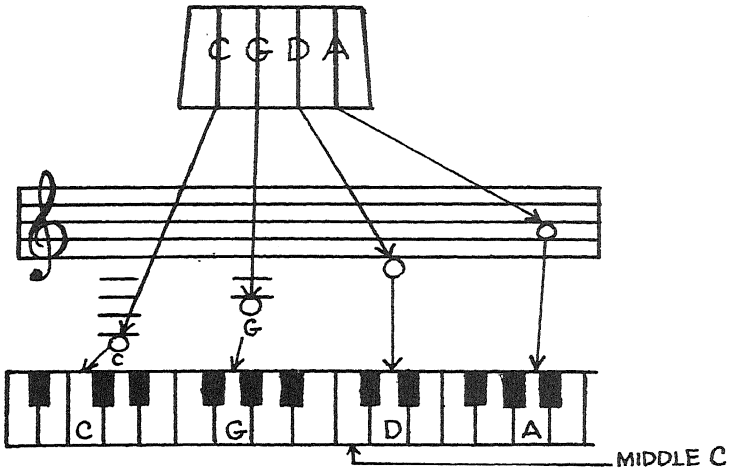


FIGURE 49

The Banjo's Strings and Notes

The Tenor Banjo's four strings are:

The first or A string
The second or D string
The third or G string
The fourth or C string

These strings are shown in Fig. 48.

The A string is tuned to the first A above middle C on the piano (Fig. 49). The D string is tuned to the D just above middle C. The G string is tuned to the first G below middle C, and the C string is tuned to the C an octave below middle C. For tuning instructions, please see the section on "The Violin."

You will notice from Fig. 49 that the range of the Tenor Banjo's notes is different from most other string instruments and that if there is much playing on the low G and C strings, the music would be hard to read. The notes would be written way below the staff, and it is harder for most people to read these low notes.

When playing the Tenor Banjo, most people use regular music such as that written for the piano or violin or for popular songs. This music is written mostly on or near the staff and is

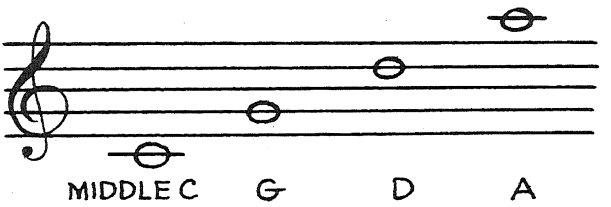


FIGURE 50

easy to read. The notes, however, are an octave higher than those to which the strings of the Tenor Banjo are tuned.

What the Tenor Banjo player does is to read the regular notes and play from them. These notes, which correspond to the banjo's strings (although they are an octave higher) are shown in Fig. 50.

When you see middle C in the music, you play your open fourth or C string on the banjo. When you see the G above middle C (Fig. 50), you play the open third or G string of your banjo, and so on.

In piano and other standard music, you do not often find notes below middle C. If you do see them, however, play them as they are actually written. If you see the B directly below middle C, for example, it is a note that you can actually make on the G string of your Tenor Banjo. You play this B and it sounds exactly like the B on the piano written in the same position on the staff. The other higher notes from middle C on up all sound an octave lower than they would sound on a piano.

This is a little difficult to explain in words, but we hope we have made it clear. Don't puzzle over it too much at this point. When you take your banjo and some music and start picking out the notes, it will be clear to you after a very short time.

How the Banjo Is Played

The banjo is held so that it rests on the right thigh, when you are seated, with the left hand holding the banjo's neck considerably higher (Fig. 51). The strings are struck with a tortoise shell pick or plectrum, which is held between the ball of the right thumb and the right forefinger. The pick is laid

across the forefinger between the tip of the finger and the first joint, and at right angles to the finger. The ball of the thumb is then placed against it (Fig. 51).

When playing single notes the down stroke is used. The right hand is moved downward and the pick is swept across the string.

The short eighth and quarter notes are usually played at one stroke, but the longer half notes and whole notes are played with the tremolo. This is a rapid up-and-down movement of the pick over one string which sustains the tone for the required length of time. You should practice the tremolo a good deal, because it is used all the time in playing the Tenor Banjo.

Be sure always to start the tremolo with a down stroke and end it with an up stroke. By ending the tremolo on an up stroke your hand is always in position for the next down stroke or the next tremolo.

Making the Notes on the Banjo

The frets (raised cross pieces) on the neck and fingerboard of the banjo are spaced one half-tone apart.

Accordingly, if you wish to play A# on the A string, you put your finger on the string at the first fret and press down. This gives you A#, which is a half-tone higher than A, the tone of the open string. To get B, a whole tone higher than A, you put your finger on the string at the second fret, and so on up

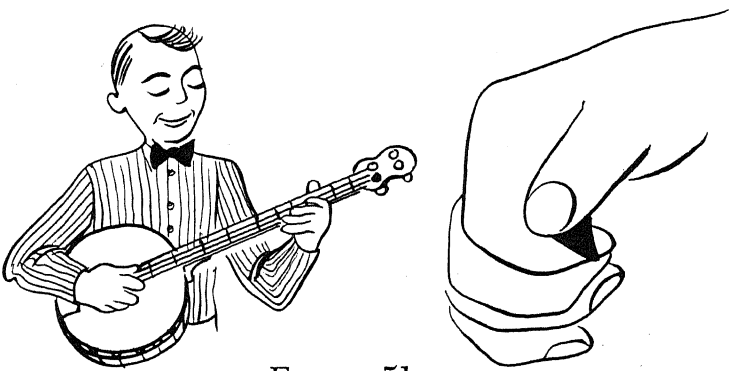
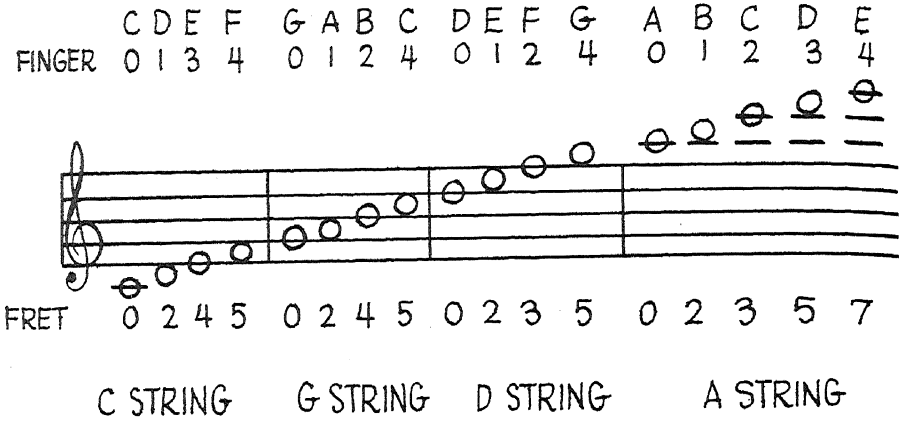
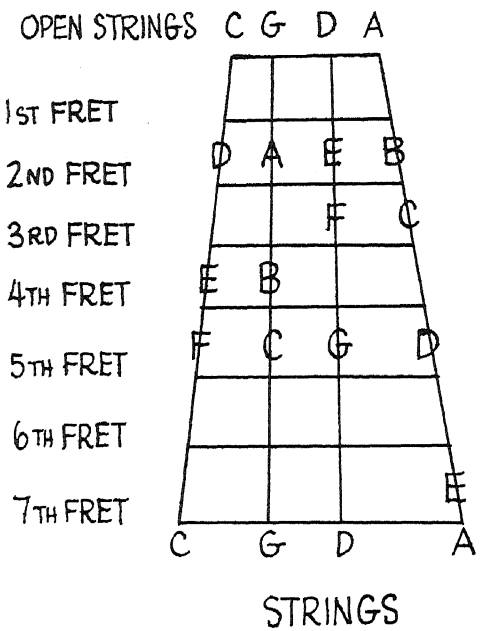


FIGURE 51





BANJO NOTES AND STRINGS

FIGURE 52

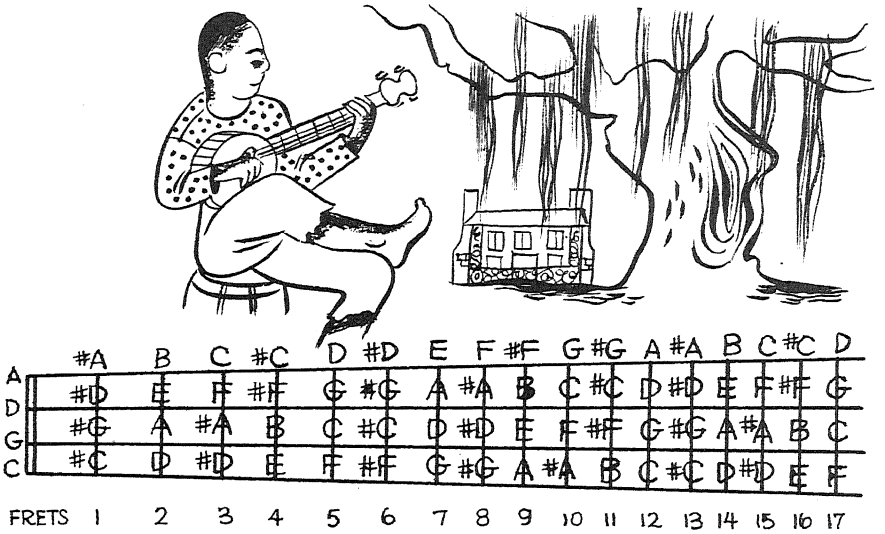


FIGURE 53

the scale. The tips of the fingers are used and they should be placed very close to the fret, but not directly on top of it.

Fig. 52 shows the range of natural notes (without sharps or flats, which are most used on the Tenor Banjo, together with the positions of the left-hand fingers as they make the notes. The numbers *above* the notes show which left-hand finger to place on the string. The numbers *below* the notes show which fret to put the finger on. The sign O means an open string—just pick the string without touching it with a finger.

With Fig. 52 in front of you, take your banjo and start to figure out the notes and play the scale shown.

Playing sharps and flats will follow easily and naturally after you have learned the natural notes. To sharp any note, you simply move your finger up to the next fret. To flat a note you move your finger back to the fret below it or toward the head of the banjo.

For ready reference, we are showing all the notes of the banjo in Fig. 53. We are showing only sharps, but remember that the sharp of one note may be the flat of the note next above it. Thus, A# on the first string is also Bb.

Chords in C

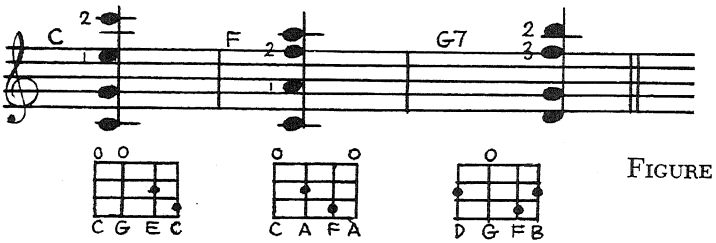


FIGURE 54

Chords in G

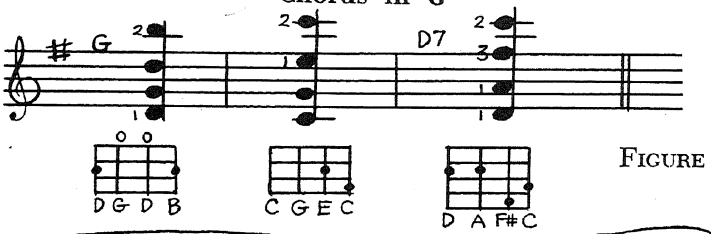


FIGURE 55

Chords in D

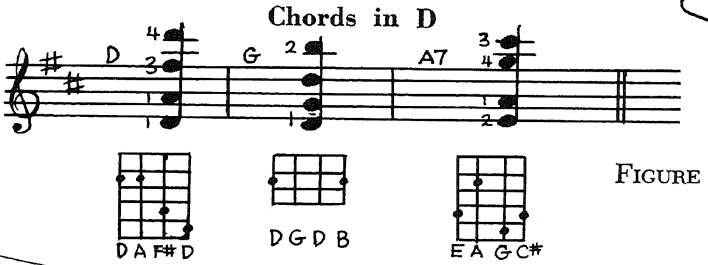


FIGURE 56

Chords in F

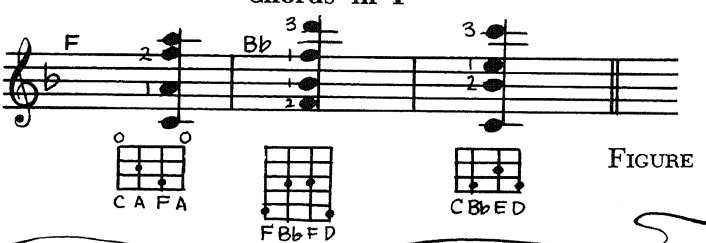


FIGURE 57

Chords in B

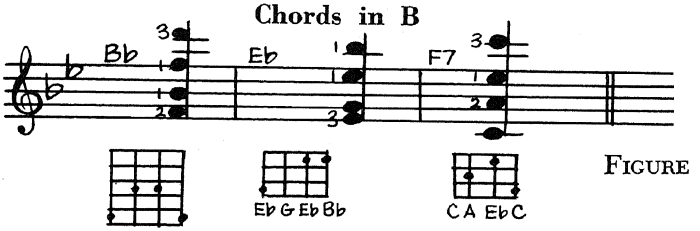


FIGURE 58.

Playing Simple Tunes

With the notes shown in Fig. 52, you can play any number of tunes, when they are written in the Key of C (no sharps or flats). The thing to do is to get out your music and start picking out the notes of tunes you like. It does not take the average person long to be able to play the melodies of the popular dance tunes and the old favorite songs.

When you run into sharps or flats, refer to Fig. 53, if you have not already learned how to play them.

As you play, keep practicing the tremolo, for it is needed to sustain the tones of the half notes and whole notes for the proper length of time.

It has been our experience that average people can learn to play easy popular melodies on the Tenor Banjo within two or three weeks' time. We hope that this will be your experience too.

Playing Chords on the Banjo

After you have learned how to play tunes on single notes, you will want to learn a few chords. These can be used together with single notes when you are playing a melody, in order to give more depth and fullness to your playing.

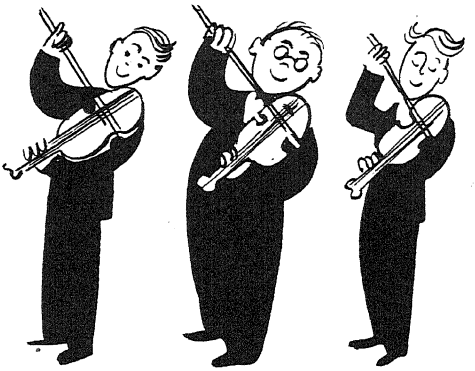
For example, if you are playing "Old Black Joe," page 57, you can start with a single note for the word "I'm, and then strike a chord for the word "coming," instead of using the tremolo on the single note.

The different chords that are most commonly used on string instruments are described in the section on "guitar chords" in the chapter on "The Guitar." If you will look up that explanation, we will not have to repeat it here.

In the following figures we give you the chords you will use the most at first. They will enable you to play music written in the keys of C, G (1 sharp), D (2 sharps), F (1 flat) and Bb (2 flats).

The chords are written, for easier reading, one octave higher than they will sound on your banjo.

Chapter 9
THE VIOLIN



THE VIOLIN, admittedly, is one of the most difficult instruments to learn to play well. That should be said. But now that we have said it, we are going right on to point out that thousands of people have taught themselves to play the violin and can now play practically any piece of popular music they want to, as well as all the old favorite traditional songs and hundreds of beautiful semi-classical and classical melodies drawn from the world's great store of music available to anyone who will go into a music store and buy some inexpensive collections of popular violin pieces.

In these books you will find different arrangements of some of the world's most glorious music; some arrangements so simple that you can play them as soon as you learn the fingering of the violin, others more difficult, and others that you will have to work up to by degrees. Brahms' "Lullaby," Kreisler's "Alt Wien," Mendelssohn's "On Wings of Song," and dozens of others are there for you to play, if that is the kind of music you like. Many people do not realize that this beautiful music is available for them in simple arrangements that even beginners can play.

One reason why the violin is more difficult to play than other string instruments like the guitar and banjo is that there are no frets (raised crosspieces) on the violin fingerboard to guide your left-hand fingers to the proper position for each note. In the beginning you have to feel your way toward the notes. With the help of the diagrams in this chapter you will be able

to do this. Before long you should be able to find the notes instinctively, without the aid of the diagrams.

The Violin and the Bow

Fig. 59 shows the different parts of a violin and of a violin bow. It also shows the location of the four strings—the E or first string, the A or second string, the D or third string, and the G or fourth string. The E string is made of steel wire; the A string of gut; the D string of gut covered with aluminum wire; and the G string of gut covered with silver wire.

The function of the end button is to hold in place the tail piece, to which it is fastened with gut.

The purpose of the chin rest is to enable the player to hold the violin securely. It also protects the top of the violin from

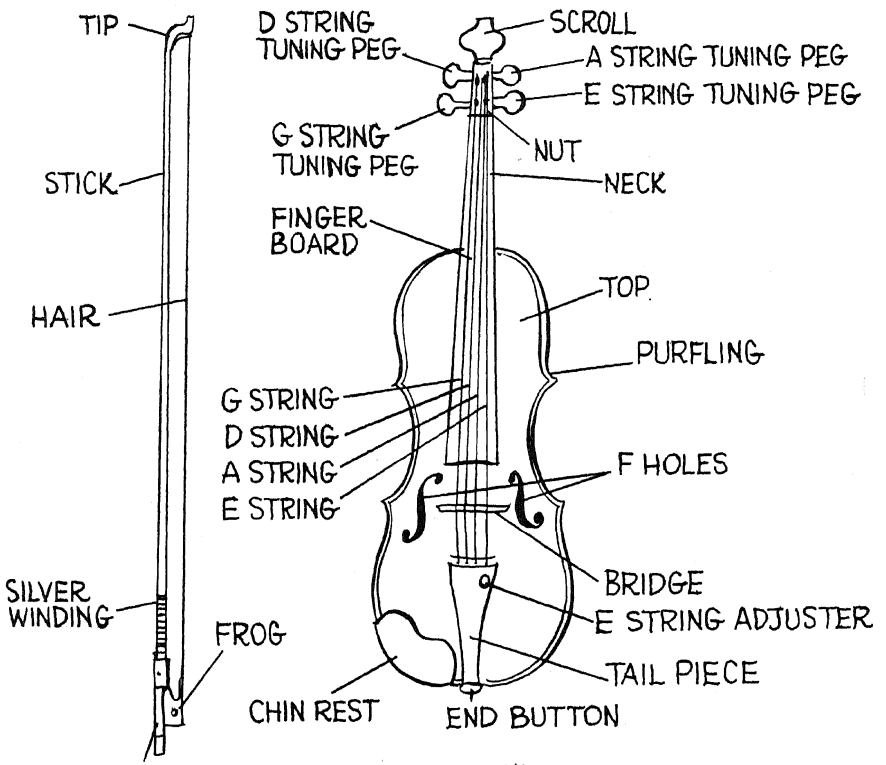


FIGURE 59

being touched by the player's chin. This contact might injure the tonal quality and volume of the violin.

The bridge should always be straight upright and should be positioned directly between the little nicks in the F holes. If the bridge is in the wrong position it can ruin the violin's tone.

Inside the violin there is a small round piece of wood just behind the right foot of the bridge. This is the all-important soundpost. It braces the top against the pressure of the strings and both transmits and regulates their vibrations. The entire violin is made resonant by this little piece of wood, which is sometimes called the "soul of the violin." Never try to adjust the soundpost. That is a job for the expert violin repairer.

Glued to the inner surface of the top parallel with the G string is a narrow strip of wood called the bass-bar. This is needed to strengthen the top against the vibrations of the big G string and to equalize the vibrations.

The stick of the bow is usually made of Pernambuco wood, and the frog of ebony. The hairs are horsehairs.

Before playing, the hairs are tightened by turning the screw and are rubbed with rosin. The tightening is done to give the necessary tension to the stick. This tension should not be so great as to make the stick straight; it should always be slightly bent in toward the hairs. The rosining is needed to give the hairs a good grip on the strings.

After playing, the hairs are always loosened to remove the tension on the stick, and the rosin dust should be wiped off the violin with a soft cloth. You should not touch the bow hairs with your fingers and—very important—you should not touch the violin's strings with your fingers where the bow touches them.

It is important that you have a violin and bow of the right size. Small people use smaller violins than those intended for large people with large hands. The music store where you get your violin should be able to help you choose one of the right size.

Tuning the Violin

The violin is usually tuned by striking, one at a time, the four notes on the piano that correspond to the four violin strings, and then twisting the tuning pegs until each string gives the correct tone or pitch. Fig. 60 shows the piano notes that correspond to the violin strings, and also the position on the musical staff of the note made by each string.

Always tune the A string first; then the D string; then the G string; and finally the E string.

To start tuning, hold the violin upright, scroll on top, grasping the neck with your left hand. Play A on the piano with your right hand; then pluck the A string with your left thumb. If the string sounds higher than the piano note, loosen it by turning back the tuning peg until the string sounds a little lower than the piano. Strike A on the piano again to get the exact pitch. Then tighten the string again very slowly, plucking it with the left thumb as you do so. As soon as the string is tightened so it sounds exactly like the A on the piano, it is tuned. If a peg is too slippery to hold tight, chalk it with chalk that you can get at your music store.

The most important thing about tuning is always to finish tuning a string with a tightening motion of the tuning peg. If you finish with a loosening motion of the peg the violin will get out of tune almost as soon as you start to play.

Tune the D string next in exactly the same way.

Then hold the neck of the violin with your right hand, while you tune the G string and E string. Pluck the strings with your right thumb, and turn the pegs with your left hand. Always tune the E string very slowly because it is under high tension. Use the E string adjuster when the tone of the string is almost right.

If a piano is not available, you can tune your violin with a pitch pipe, which can be bought at any good music store. (Fig. 60.) It consists of four blow pipes pitched G-D-A-E, to which the four strings of the violin are tuned. You simply blow into the pitch pipe instead of playing the notes on the piano.

How to Hold the Violin

The violin is held in a horizontal position between the left shoulder and the chin. The top should slant a little, the right side being lower than the left. (Fig. 61.) Learn to hold your violin firmly between shoulder and chin without support from the left arm. This arm and hand must be free to move at will along the fingerboard.

Put your violin in position and rest your left fingers on the fingerboard. Look at Fig. 61 and you will see that the left forearm and hand are in a straight line. This is important. Do not let your wrist bend out or bend in to touch the neck of the violin. It is an excellent idea to practice while standing in front of a mirror to be sure that the scroll is always a little higher than the left shoulder. Turn sideways to watch that the bow always stays at right angles to the strings. Keep the left elbow well under the violin, bending it to the right so you can almost see it under the right-hand edge of the violin. This brings the left little finger within easy reach of the strings.

How to Hold the Bow

The bow is held between the four fingers of the right hand and the right thumb. The stick should touch the second joint

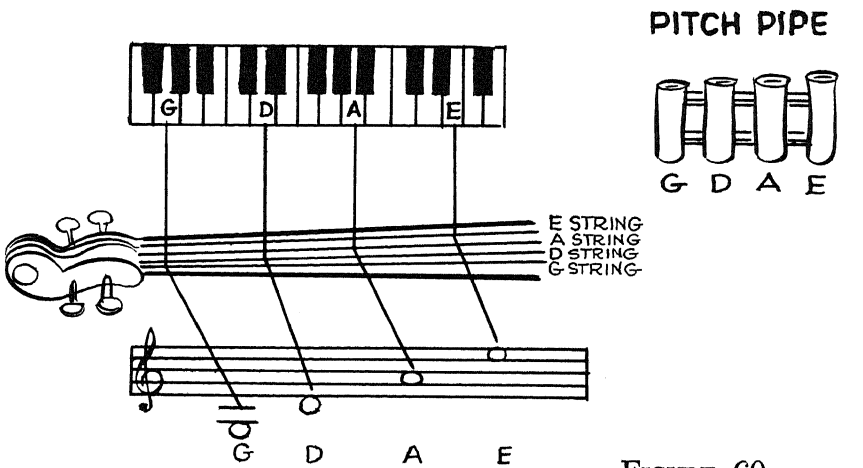


FIGURE 60

of the first finger and the tip of the little finger. This is indicated by the line in Fig. 62. The thumb is placed at point A, Fig. 63, just where the frog joins the under side of the stick. The thumb should go between the stick and the hairs and should touch both the frog and the stick. It should be directly opposite the right middle finger (Fig. 64), and should also lightly rest against the edge of the bow hairs.

Now, for what is possibly the most important point about holding the bow correctly. The end joint of the thumb should be at a definite right angle to the second joint. This is shown in Fig. 64. This is the easiest grip and the best way to get real control of the bow, which is one of the hardest things to do when you are just starting.

Bowing and Fingering

The bow is not held straight up and down over the strings, but is held in a slightly slanting position with the stick further away from you than the hairs. Hold it at a right angle to the strings. It should then be drawn across one string (any one), touching only that string. Keep the bow midway between the bridge and the fingerboard. Do not press the bow heavily against the string. Move it lightly, freely and evenly. This lets the string vibrate clearly.

There are several special signs and numbers printed on violin music to guide you in the use of the bow and the left-hand fingers.

The sign V means an up bow. This means that you push the bow upward.

The sign ⊓ means a down bow. You are to pull the bow down.

The numbers 1, 2, 3 and 4 are placed above notes to indicate which finger of the left hand you are to use in making the note —the first, second, third or fourth finger.

The sign O means open string. The note indicated by it is played on an open string, that is, a string not touched by one of the fingers. You might play the note E, for example, on the

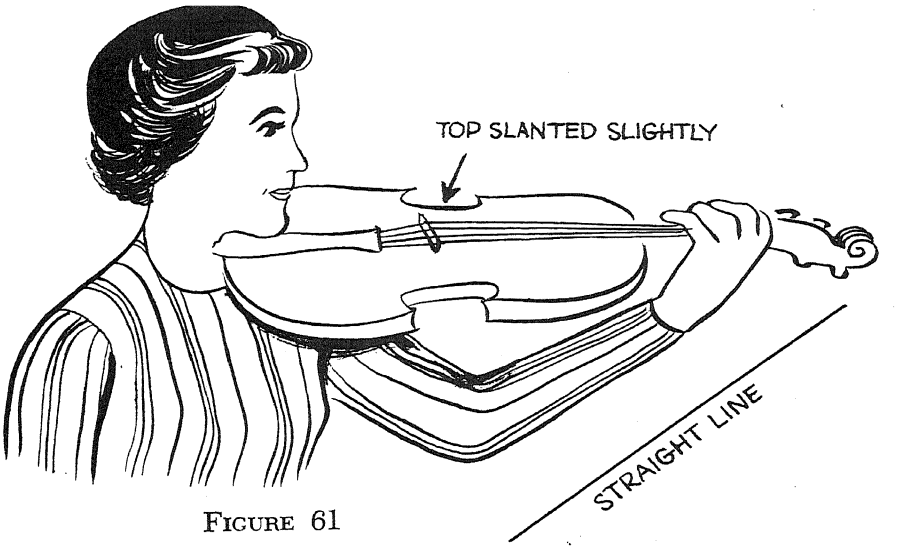
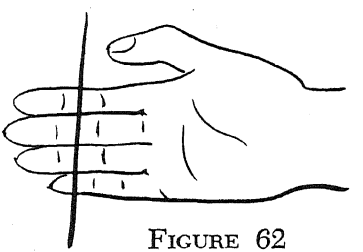


FIGURE 61



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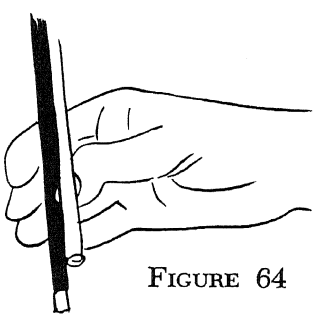


FIGURE 64

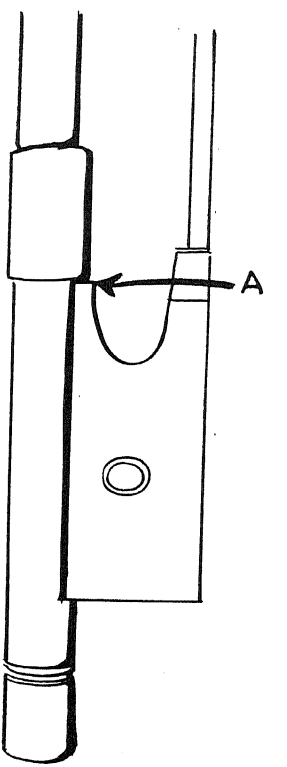


FIGURE 63

open E string, which sounds the tone E when it is not pressed down by a finger.

The word Pizz. (pizzicatto) means to pluck a string with the finger instead of sounding it with the bow.

The sign ⌒ is called a slur, and covers two notes. It means that the two notes are to be played with one stroke of the bow —either upward or downward.

Playing the Open Strings

Your first exercise on the violin should be to play on each open string, E, A, D and G. Practice until you can get a good, clear tone.

Start with the E string. Use the middle part of the bow. Draw the bow down slowly and evenly. Do not press against the string. Then push the bow up slowly. Practice until you can make a clear, singing tone.

Next play on the G string. Move the bow slowly but steadily. An important point is not to touch the edge of the violin with the bow.

Practice next on the A string and D string. The important thing here is to touch only the one string on which you are playing.

When you have practiced on all the strings, do the simple exercise shown in Fig. 65. This consists of playing E with a down bow, and A with an up bow. Then play D with a down bow and G with an up bow.

These simple exercises will get you started. You should continue to play on the open strings until you can play first one, then another, and then another with a good bit of confidence. It is right at this point that a book of easy violin exercises would be a real help. Such a book, which you can get at any music store, will give you a number of open string exercises to work at. We are really sorry that there isn't room for some of these in this book; but we feel that it isn't asking too much of our readers to ask them to help themselves along by getting the music they need at one of the regular music stores.

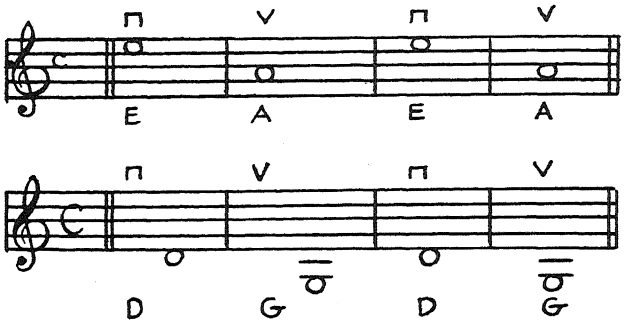


FIGURE 65

Making Notes with the Fingers

After you are familiar with playing the open strings, the next step is to learn how to make notes by putting your left-hand fingers on the strings.

Here we come to two other special terms used in violin playing—whole steps and half steps. These refer to the distances between your fingers when they are placed on the strings to make notes.

For whole steps the fingers are placed a little distance apart, usually about three-quarters of an inch.

For half steps the fingers are placed close together.

Probably the most important point about how to hold your left-hand fingers is to keep them arched when they are pressing down on the strings. Curve them nicely. Never let them buckle in.

The First and Second Fingers

First learn to play the notes that you make with your first and second fingers. You make notes with these fingers on all four strings.

Begin with the E string, which is shown in Fig. 66. Curve your first finger and put it on the E string, close to the nut. Draw your bow across the string and you will hear the tone F,

which is a half step higher than E, the tone of the open string.

Now put your second finger on the E string about three-quarters of an inch beyond the first finger. This gives you the tone G, which is a whole step higher than F.

To make F sharp, move your first finger up close to the position for G. The F sharp position is a whole step higher than the open string.

Practice playing E, F, F sharp and G on the E string until you can make all the notes clearly.

Then proceed to the A string (Fig. 67.) Put the first finger on the A string a whole step higher than the open string. This gives you the tone B.

Put the second finger close to B (a half step from it). This will give you C. Notice that C on the A string and G on the E string are exactly side by side.

Next comes the D string. (Fig. 68.) Put the first finger on the D string a whole step higher than the open string. This gives you the tone E.

Put the second finger close to E (a half step beyond it). This gives you F. Notice that the fingers are placed on the D string exactly as they are placed on the A string. To make F sharp (which you will need), put the second finger on the D string a whole step beyond E.

Now you are ready for the G string. (Fig. 69.) You will have to press your fingers down firmly on this heavy string to get clear, resonant notes.

Put the first finger on the G string a whole step higher than the open string. This gives you the tone A.

Put the second finger a whole step from A. This gives you B. Notice that A is exactly side by side with E and B on the D and A strings.

The notes shown in Fig. 69 are shown again in Fig. 70, as they appear on the musical staff. Fig. 71 shows you all the notes mentioned so far, including open string notes, as they appear on the staff.

What you have to do now is to practice the notes made with the first and second fingers until you know them well and can play them from Fig. 71 or from written music. Here again an exercise book of simple tunes written with these notes only will be a tremendous help. There are a great many easy tunes and melodies that can be played with the notes already described. Examples are "America," "Flow Gently, Sweet Afton," "The Blue Bells of Scotland" and "Yankee Doodle," to mention only a few of dozens. If you want to make your practice more fun, get some of these songs and work at them until you can play them.

The Third and Fourth Fingers

The next step is to learn the notes that are made by putting the third and fourth fingers on the strings. These fingers are not as strong as the other two, and violinists have to practice using them in order to make them stronger.

Begin with the E string. (Fig. 72.) Put the third finger on the string a whole step beyond G. This gives the note A. Put the fourth finger on the string a whole step beyond A, and you will have the note B.

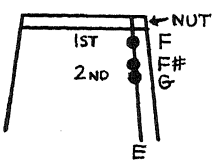
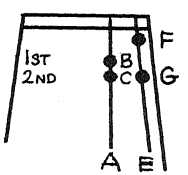


FIGURE 66



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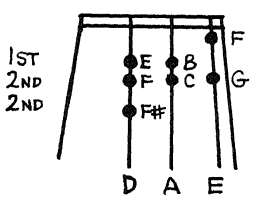

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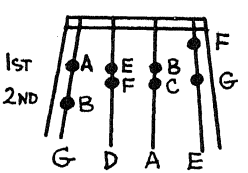
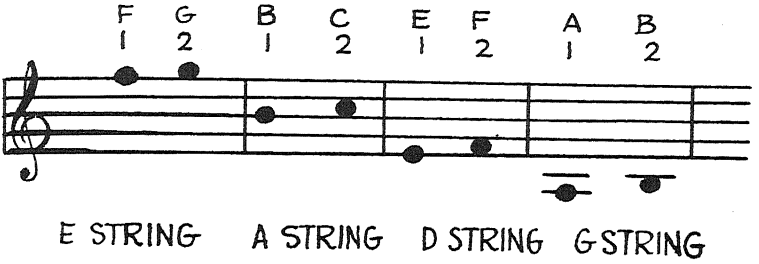


FIGURE 69



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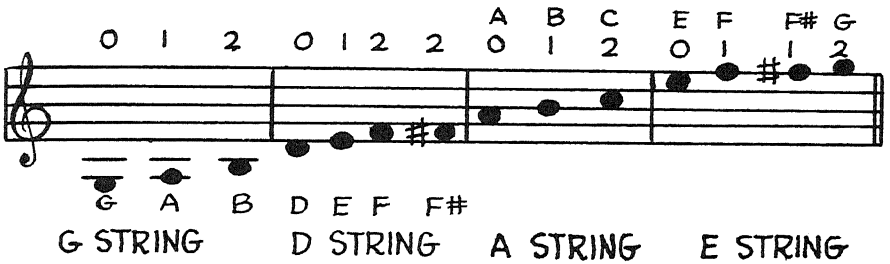


FIGURE 71

Next comes the A string. Put your third finger on the string a whole step from C. (Fig. 73.) This gives you the note D. Put the fourth finger on the string a whole step from D, and you will have the note E.

Now for the D string. (Fig. 74.) Put the third finger on the string a whole step beyond F. This gives you the note G. Put the fourth finger on the string a whole step from G, and you will make the note A.

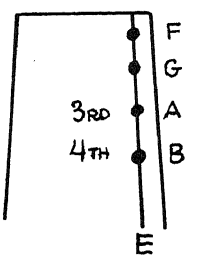
Last of all comes the big G string. (Fig. 75.) Here the fingering is a little different. Put the third finger on the string a half step from B to get the next higher tone, C. Then put the fourth finger on the string a whole step from C. This will give you the note D.

Fig. 75 shows you the notes we have learned how to make, and Fig. 76 shows where they appear on the musical staff. With these notes you can play many, many tunes; but as we said at the beginning, the violin is more difficult to play than

most of the other string instruments and you will have to practice on it a longer time to get good results.

Remember, however, that thousands of people have taught themselves to play the violin simply by following guides to the notes such as we have given you here. With the first, second and third fingers, and sometimes the fourth finger, they play all the well-known old favorite songs, many simply arranged classical pieces, and all kinds of popular dance music. They may not have the tone of a Kreisler or a Heifetz, but they do play a lot of music and have a lot of enjoyment.

Actually, finding and making the notes is not as difficult as is sometimes supposed. Your fingers hit the right spots naturally and easily after you have practiced for a while. More practicing and playing more tunes will develop the strength of the third and fourth fingers.



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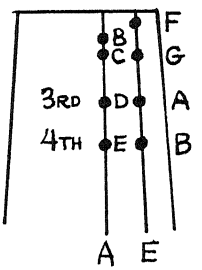

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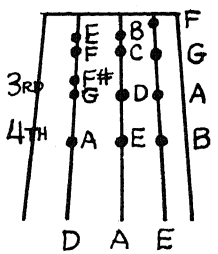

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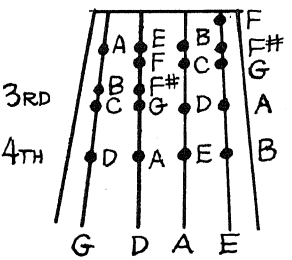

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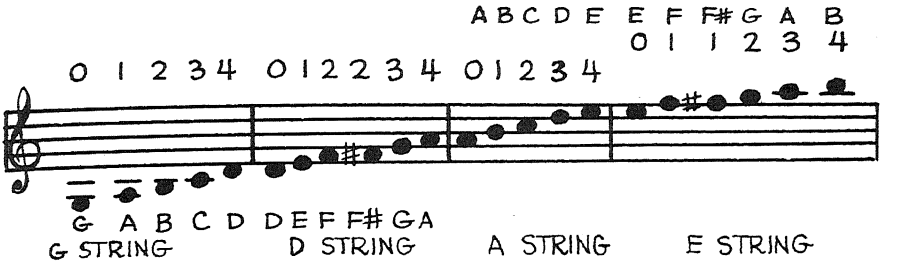
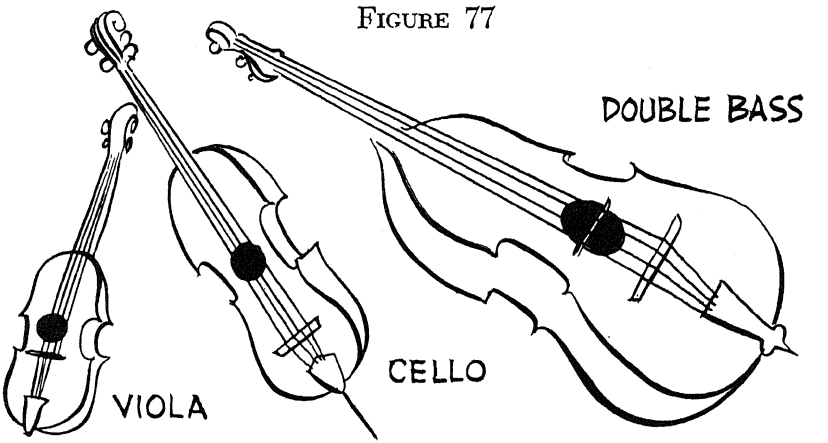


FIGURE 76

As with the other instruments in this book, we would recommend that you get as much enjoyment as possible out of playing the violin and that you practice on tunes and melodies that you know, rather than on scales and exercises. Get a book or two of simple tunes arranged for the violin and indicating the bowing, and go to work. We have known people who could play simple tunes fairly well in two or three weeks' time after starting. You can do the same if you really want to.

FIGURE 77



Chapter 10
THE VIOLA, CELLO AND DOUBLE BASS

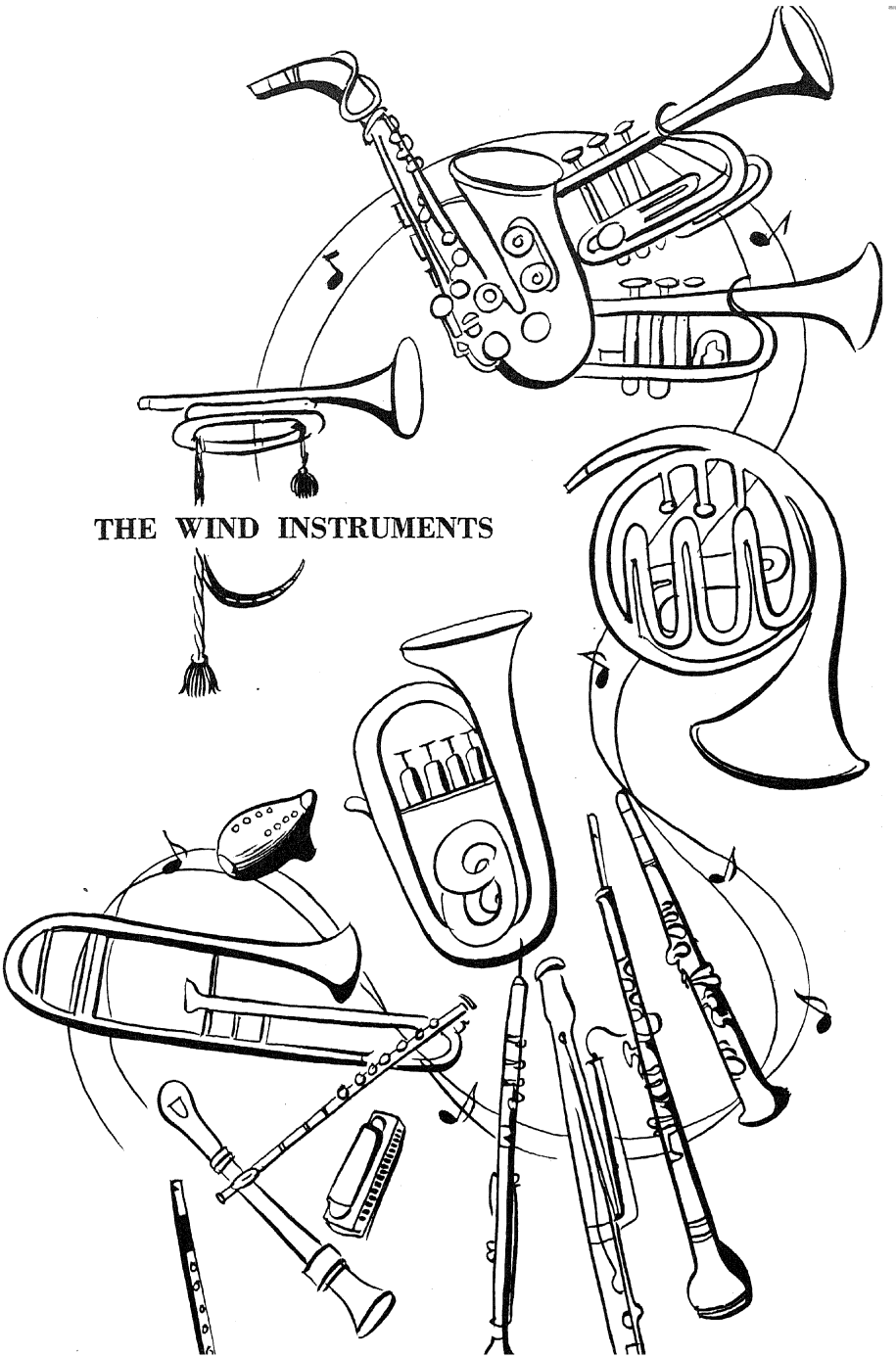
WE ARE INCLUDING pictures of these other members of the violin family because we think they belong in a book of this kind; but we are not describing how they are played because relatively few people wish to learn them as compared with the number who are interested in the more popular instruments.

The general principles of playing the viola, violoncello and double bass or, as it is often called the string bass or bull fiddle, are the same as those used in playing the violin.

The viola stands in point of size between the violin and the cello and is known variously as the tenor and the alto instrument of the violin family. It is pitched a fifth lower than the violin and has a sweet, mellow tone, less brilliant than that of the violin. This is partly because the strings are not tuned to as high a tension as violin strings.

The cello is considerably larger than the viola and considerably lower in pitch. It has a glorious full, rich tone, which is invaluable in the orchestra and in chamber music such as trios and quartets.

The big double bass is the largest of the violin family and the lowest in pitch. It is so large that the stretches for the fingers in making notes are very great, almost double those required for the cello. Owing to the thickness of the strings real strength is needed to press them against the fingerboard when they are vibrating. The double bass has become a popular dance band instrument in recent years, its powerful deep tones and the rhythmic plucking of its strings providing a wonderful bass accompaniment to the other instruments.


THE WIND INSTRUMENTS

Chapter 11
THE SAXOPHONE

THE SAXOPHONE is probably the most popular of all the wind instruments, for everybody loves its mellow, sonorous tones and is familiar with it from hearing dance bands and many other kinds of music in which it plays a leading part.

It is not a difficult instrument to play, and beginners can usually learn to play the scale in an hour or two. Within a few days the average person should be able to play popular music and any other melodies he has a mind to. It is partly because of the ease with which it can be learned that so many young people have taken up the saxophone. Many of them play in orchestras and earn a good deal of money, as well as having a good time.

While the saxophone has reached its greatest popularity in the United States, it was invented by a Belgian named Adolphe Sax, who named it for himself. Sax perfected his first instrument about the year 1845.

Saxophones are available today with six different ranges of notes. The highest is the soprano Bb saxophone. Next in order come the Alto in Eb, the melody tenor in C, the tenor in Bb, the Baritone in Eb, and the Bass in Bb. The saxophone that is most widely used and played is the Alto saxophone in Eb, which is the one described in this chapter.

When we say that this saxophone is in Eb, this means that when you read and play the note C, your saxophone will give out with the note Eb next below the C you are playing.

Points on Playing the Saxophone

The saxophone has a strap attached to it, which goes around

your neck. The strap should be adjusted so the mouthpiece is in a comfortable position for playing.

The fingers of the right hand play the notes at the lower end of the instrument. Your right thumb should be placed under the thumb rest and should press gently upward against it.

The fingers of the left hand play the notes of the upper end of the saxophone. Put your left thumb on the thumb button just below the octave key and your hand will then be in the right position.

You produce tones on the saxophone by blowing into the mouthpiece, to the under side of which is fastened a reed. One of the accomplishments you will acquire as you go along will be the strengthening of your lip muscles. As they develop and strengthen, you will be able to produce a fine, clear quality of tone. The best way to strengthen the lips is to practice playing sustained tones.

Now take up your saxophone and put your lips over the mouthpiece. Let them cover about one-half of the curved part of the mouthpiece. Rest your upper teeth on the top of the mouthpiece, and draw your lower lip over your lower teeth so they do not touch the reed. This is important, so please pay good attention to it.

Now you are ready to blow and see what happens. First, be sure to keep your lips around the mouthpiece so no air will escape at the sides of your mouth. Second, put the tip of your tongue against the end of the reed. Third, draw the tongue back quickly and at the same time blow into the mouthpiece, holding the tongue almost as though you were saying the letter "T". Your first attempt may produce only a squeak, but with a little practice you will get good, clear, resonant tones.

Making Notes on the Saxophone

Fig. 78 shows an Alto saxophone and the fingers that are used to make the different notes up to high Db. The fingering for the notes above Db is shown in Fig. 79. The range of the

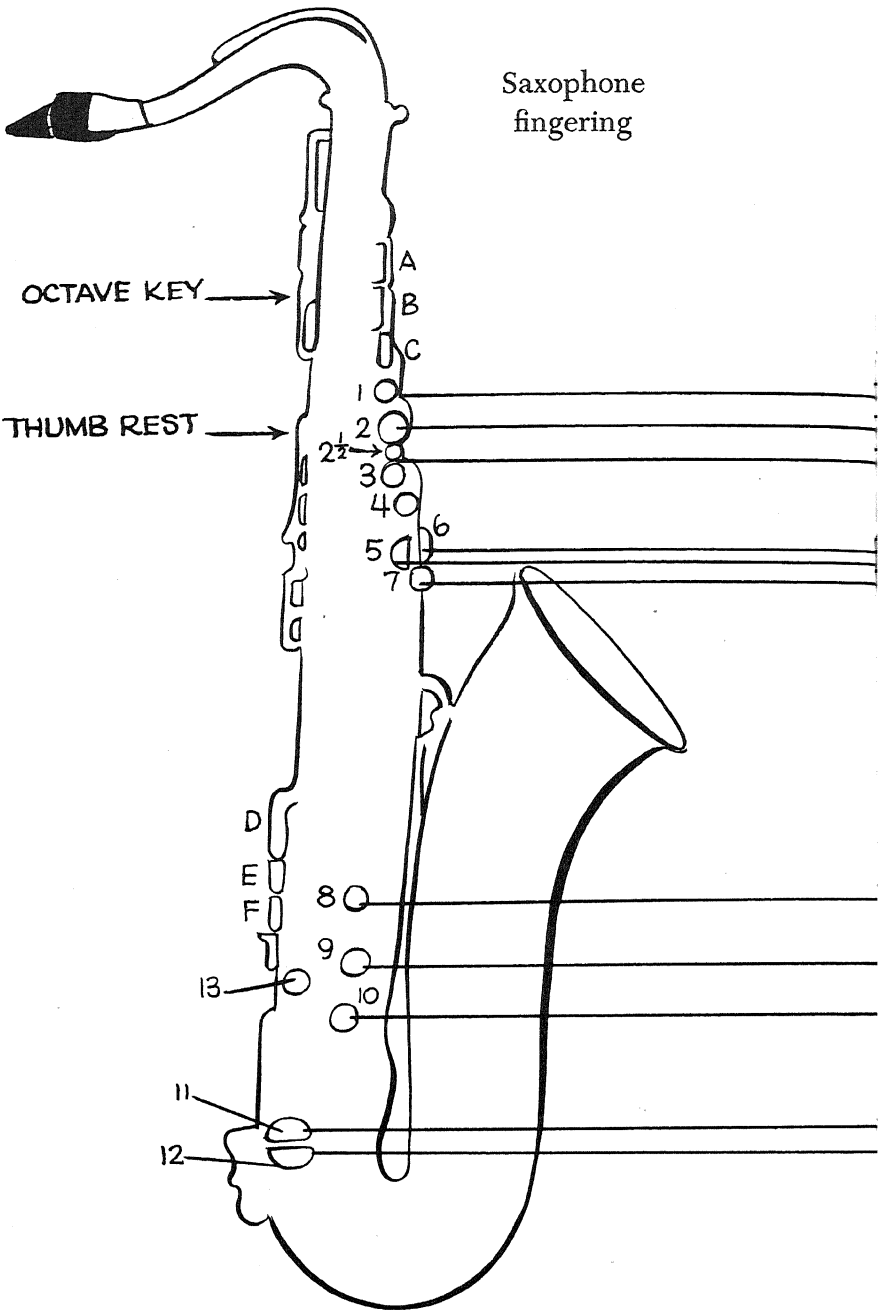
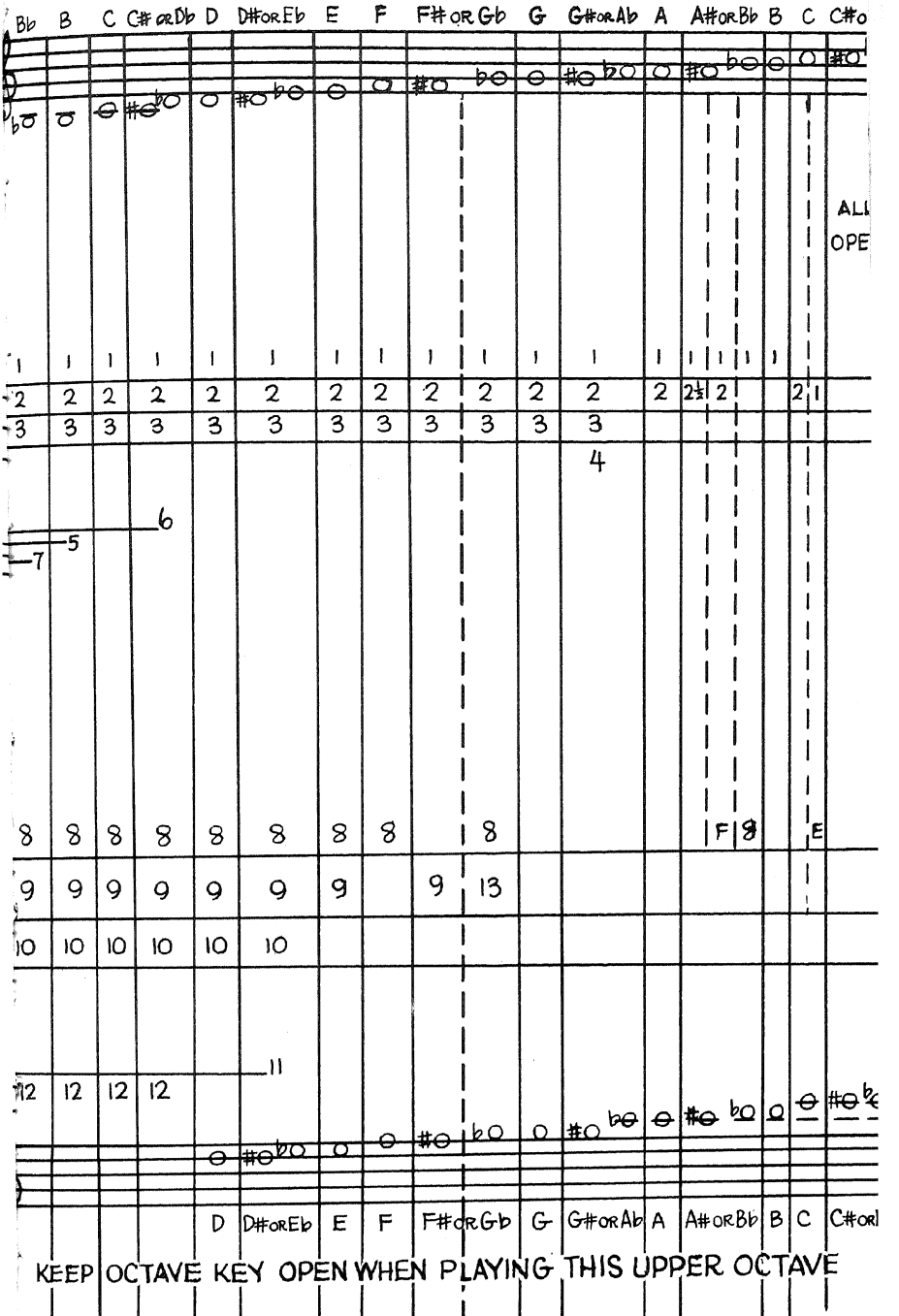

Saxophone
fingering
OCTAVE KEY
THUMB REST
A
B
C
1
2
2½
3
4
5
6
7
D
E
F
8
9
10
13
11
12

FIGURE 78.


Bb B C C#orDb D D#orEb E F F#orGb G G#orAb A A#orBb B C C#o
ALL
OPE
F
E
D D#orEb E F F#orGb G G#orAb A A#orBb B C C#orD
KEEP OCTAVE KEY OPEN WHEN PLAYING THIS UPPER OCTAVE

Alto saxophone is from Bb below middle C to high F.

To avoid needless confusion Fig. 78 is highly simplified. It shows, on the saxophone itself, only the pads and keys that you press down with your fingers and the inner part of your hands in order to make the notes. The pads on which your fingers operate are numbered 1, 2, 2½, 3 and so on up to 13. The keys, which are used chiefly when you are playing high notes, are lettered A, B, C, D, E, F, plus the octave key.

The pads and keys that are used to make each note are indicated in the column under each note. Thus, to make the first note, Bb, you press down pads 1, 2, and 3 and 7 with the first, second, third and fourth fingers of your left hand, and pads 8, 9, 10 and 12, with the first, second, third and fourth fingers of your right hand.

In the left hand the first, second and third fingers always rest on the same pads, except when you shift the second finger to the little pad numbered 2½ to make A# or Bb. The left little finger must be more versatile, for it plays pad 4 to make G# or Ab, and must also shift to pads 5, 6 and 7 to make the three lowest notes.

Much the same thing is true of the right hand. The second finger has to shift to pad 13 to make F# or Gb, and the little finger has to press two pads, 11 and 12, for some of the low notes.

All of this sounds harder on paper than it is to make the actual notes when you have a saxophone in your hands.

When you need to press on the keys A, B and C, you do so with the inner part of your left hand. In the same way, you press down the keys D, E and F with the inner part of your right hand.

Please be sure to notice that the higher notes of the scale (except the very highest) are shown at the bottom of the columns. The fingering for them is the same as for the notes shown at the top except that you have to press down the octave key with your left thumb. This opens the key.

Fig. 79 shows the five highest notes of the Alto saxophone. It is arranged in exactly the same way as Fig. 78, although the saxophone is not shown.

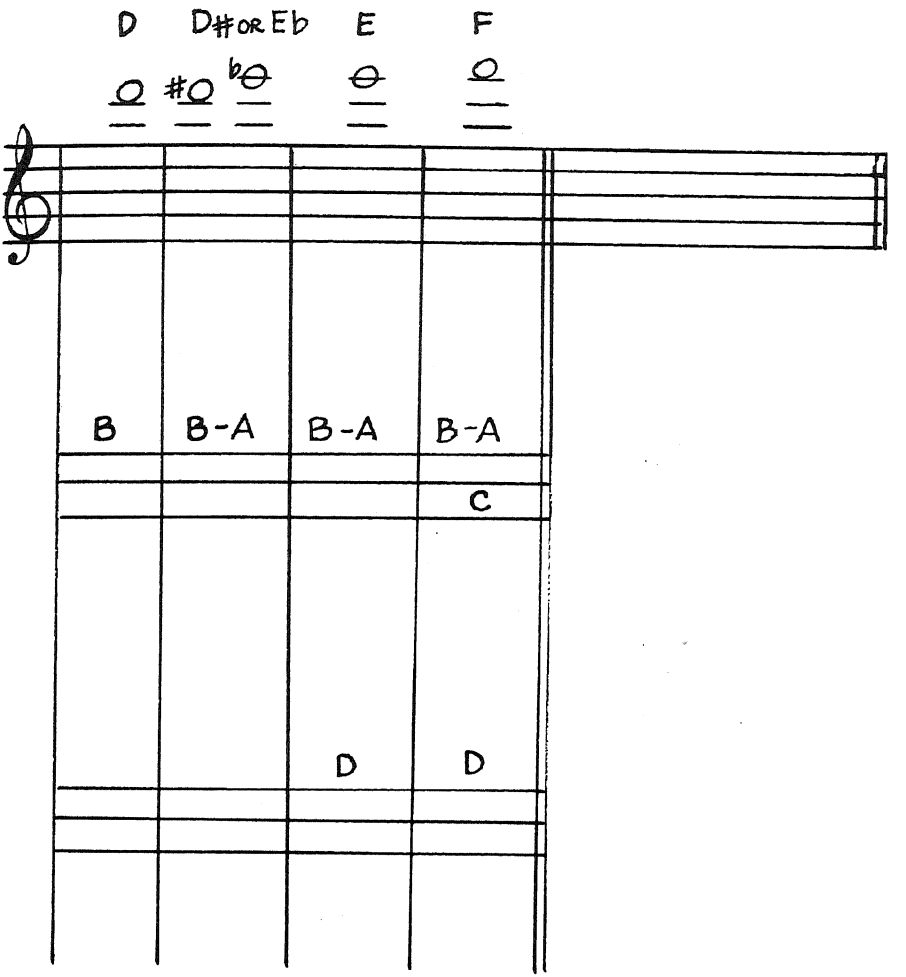


FIGURE 79.

Points on Fingering

The Octave Key. Starting with D on the fourth line of the staff and for all notes above, you must press down the octave key at the back of the saxophone with your left thumb.

Highest Notes. The highest notes, from high D to high F (Fig. 79) are made by pressing against the keys A, B and C with the inner part of your left fingers. The key D down below at the back of the instrument is also used. To make high D press against key B. To make high E press down keys A and B. To make high D# or Eb press down keys A and B with your left hand and key D down below with your right hand. To make high F press down keys A, B and C with your left hand and key D with your right hand.

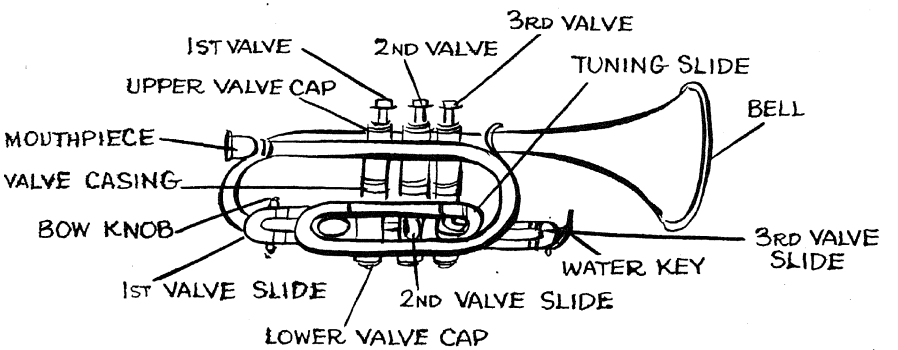
Alternate fingerings. Alternate fingerings are given for F# or Gb, A# or Bb and for C. Start in with the first fingering, the one shown at the left, and experiment with the others later on.

Playing Simple Tunes

As we said at the beginning, it does not usually take people long to learn to make the notes on the saxophone. And as soon as you have learned how to play up and down the scale, there is absolutely nothing to stop you from starting right in to play simple tunes or even popular music. If you know how to read music, it is a fairly simple matter to follow the notes, and the more you play the better you will get. We have known so many people who have taught themselves the fingering on a saxophone from diagrams such as those in this chapter, that we have little hesitation in repeating that any average person should be able to play popular and other simple music within a few days after they get hold of a saxophone and start experimenting.

Chapter 12
THE TRUMPET AND CORNET

THE TRUMPET has been used for many years in the great symphony orchestras and in military bands, and in recent years it has become one of the grandest of the instruments used in dance bands. Its brilliant tone is marvelous for playing a mel-



Cornet

Trumpet

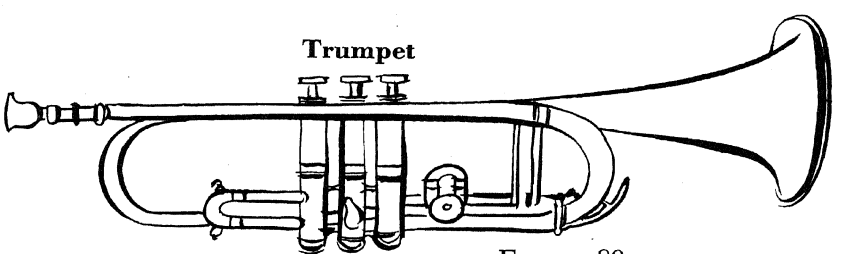


FIGURE 80

ody and many people like to play solos on the trumpet at home to enjoy its rich, golden tones.

The cornet differs from the trumpet in appearance and in tone, but both instruments are played and fingered in the same way. The trumpet is longer and has a clear, brilliant tone; the cornet's tone is more mellow. It is perfectly possible for a person to play both instruments since there is no difference in the methods of fingering or tone production.

Both instruments are among the easiest to learn to play insofar as making the notes is concerned. It is more difficult, however, to learn to blow into them or "tongue", to produce a good tone. This does take time and practice.

Fig. 80 shows both a trumpet and a cornet and their principal parts. Each has three valves or pistons and connected with the valves are slides which are used for tuning. Heat and cold affect these instruments, making them play a little sharp or flat, and the valve slides can be moved to correct these conditions or others that might put the instrument slightly out of tune. There is also a water key, placed where most of the water gathers during playing, by means of which the water is discharged from the tubing. A good deal of water also gathers in the third valve slide and is removed by taking off the end of the slide.

Trumpets and cornets are pitched in Bb. This means that when you read and finger the note C, the note that comes out is Bb. Thus, if you and a friend who plays the piano are playing together from the same music, your friend would have to play each note a whole tone lower than written in the music in order to be in tune with you. Trumpet and cornet music is, of course, written with this in mind; so in a band or orchestra all you have to do is to play your part and it will fit in with the other instruments.

The trumpet is held for playing as shown in Fig. 81. The left hand holds the instrument in a horizontal position, with the fingers clasped over the valves. The arms should be slightly

away from the body. The first, second and third fingers of the right hand are then put on the buttons of the first, second and third valves. When you are playing or practicing, always keep the fingers on the valves. Put the right thumb under the upper tubes near the valves. This helps to keep the fingers in the right position.

Tone Production

The most important thing to learn about playing a trumpet or cornet is to produce a good, clear tone. This will come as you play and practice and your lips develop the needed amount of strength.

To produce a tone, put your lips together except for a small opening in the center for your tongue and for your breath to pass through. The tone is produced by a combined action of the lips, the tongue and the breath.

Put your lips against the mouthpiece and place your tongue against your upper teeth as though you were going to say the letter "T". Then blow into the mouthpiece, at the same time saying "T" or "tu" under your breath. It is important that you do not move your lips when you do this, as that would make the tone weak and indistinct. Keep your lips entirely motionless, letting the tongue do all the work.

An important point is to learn to draw in your breath through the corners of your mouth. Don't breathe in through the

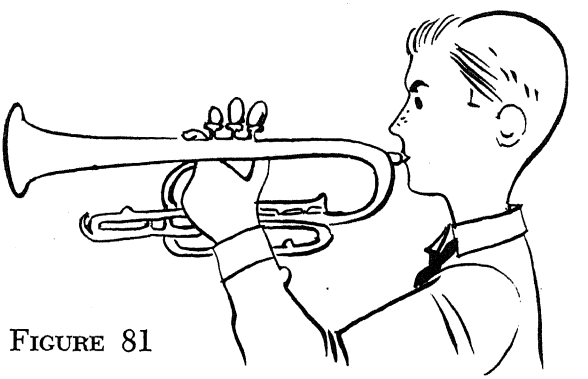


FIGURE 81

mouthpiece. As you practice, you will learn to breathe in accordance with the length of each phrase you have to play. You should breathe often, but at the right places, after one musical phrase is finished and before the next one starts. Don't try to play as long as you actually can on one breath.

The best way to gain good tone production is to play sustained notes, holding them as long as your breath comes freely.

Making the Notes

The different notes in the scale are made on the trumpet or cornet by a combination of two things (1) the valve or valves you press down with the fingers of your right hand and (2) the manner in which you blow or more properly "tongue" into the mouthpiece.

Fig. 82 shows the range of the instruments, which is from F# below the middle C to C two lines above the staff, and shows which valves to press to make each of the notes. Some of the notes have the symbol O printed over them and this means an open tone played without pressing down any of the valves.

Notice that the same valves or combinations of valves are used to produce more than one note. Thus, there are six open tones—notes made with none of the valves pressed down. These notes range from middle C up through G, C, E and G to the high C. Then there are six notes made by pressing down the first valve—the low A# or Bb, F, the next A# or Bb, D, F and the high A# or Bb. The same is true of other notes. You make the higher notes by tightening the lips and using quicker, more forceful tonguing.

When you play the lower notes, your lips should be fairly relaxed and not too tightly pressed together. There should be no great effort when you breathe into the mouthpiece and pronounce "tu". Take it easy.

Start with middle C and with G on the second line of the staff. These are open tones and fairly easy to produce. When you can make them clearly, try the other notes just above and below them.

Fingering chart
for
trumpet or cornet

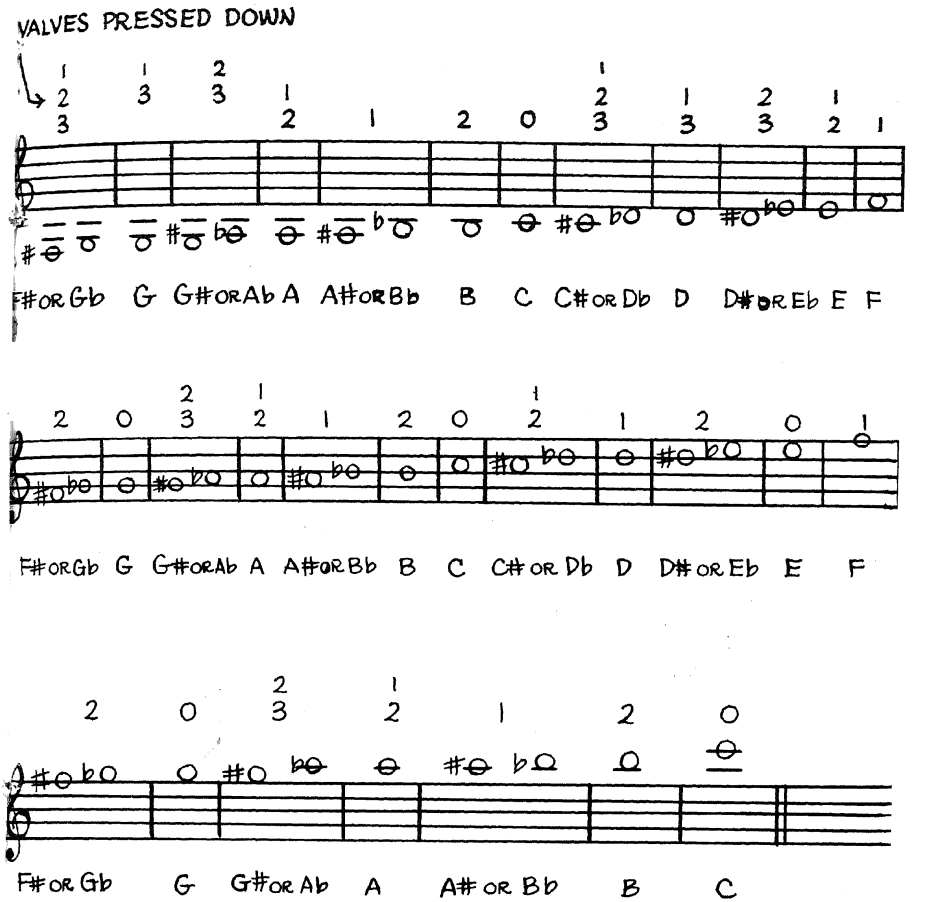


FIGURE 82.

When you try the higher notes, tighten your lips by tightening the muscles at the corners of your mouth. This will tighten your lips at the center, too, where they touch the mouthpiece. Avoid the mistake made by many beginners of pressing the mouthpiece too tightly against the lips when playing the higher notes. This is important to remember.

With your lips tightened as described, draw your tongue a

little further back in your mouth than when playing the lower notes and then pronounce "tu" with considerable force. Don't use all your force, and don't try too hard just at first. Try the high D, E and F, and if you don't do very well, forget them for a day or so and then come back to them.

As you practice the easier lower notes, your lips will gradually gain strength and the higher notes will present no difficulties. So do not try to force them right at the start. It is like trying to run before you can walk and is the wrong way to go about it. Have patience and in a week or so after you start you should begin to get results.

Playing Tunes

When you can play the most commonly used notes, which are those from the low E to the E on the fourth line of the staff, you are all set to start playing tunes. Get whatever music you like best at the music store or ten-cent store and see how well you can make out.

As with any other instrument, you should start with simple, slow-moving tunes like, for example, "Long, Long Ago," "America," "Home on the Range," and so on. Any good song book will provide you with dozens of well-known melodies with which you can get started.

Each time, before you start to play, be sure that your instrument is free of water. Then warm it up by playing single notes and some sustained tones to strengthen your lips and improve the quality of the tone you can produce. Don't play for too long a time at the beginning. Stop when your lips begin to be tired of being under tension.

After playing, be sure to let out all the water in the instrument before putting it away. If you don't do this, the water will harm the insides of the tubes.

Once or twice a week you should rinse out your trumpet or cornet with lukewarm water. Many players pour a little water through their instrument once every day. This keeps it clean and helps to keep the valves in good condition.

Chapter 13
OTHER BRASS WIND INSTRUMENTS

IN ADDITION to the well-known trumpet, cornet and slide trombone, brass bands use several other brass instruments. Some of these are also used in the brass sections of big symphony orchestras. Everybody knows in a general way what most of these instruments look like, but we have found that very few people are sure of what they are called. For this reason we are including pictures and brief descriptions of them. The instruments are the French horn, the mellophone, the alto, tenor and baritone horns, the euphonium, the recording bass, the bass tuba, and the Sousaphone.

All these instruments are played in the same general way as the trumpet and cornet, by pressing down three or sometimes four valves to make the notes.

The French horn, which consists chiefly of a very slender conical tube wound round in coils, is one of the most difficult of all wind instruments to play. Its beautiful, mellow tone, however, makes it one of the most valuable instruments in a large orchestra where it produces a tone quality no other instrument can duplicate. A fine French horn, like a fine violin, is practically a hand-made job, and every inch of the tubing is as smooth as glass and is correctly and uniformly graduated in thickness.

It is said that expert players use seven different kinds of lip efforts to get the tones they want from the French horn, and even the best players will sometimes "crack" or make the wrong note now and then, owing to the remarkable difficulty of playing the instrument.

The mellophone is a simplified French horn. It has much the same full, rounded tone, but is much easier to play. For this reason it is used in many school bands and orchestras.

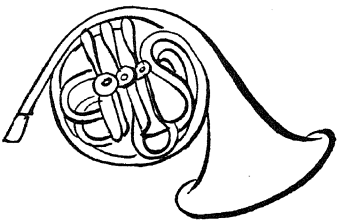
The alto, tenor and baritone horns play these three different parts in band music. The alto horn plays the higher parts, the tenor horn sings along as a tenor voice would, and the baritone horn corresponds to a man's baritone voice. The tenor horn is a relatively new instrument, which was designed to fill the wide gap that previously existed in band instrumentation between the alto and baritone horns. When one or two tenor horns are used, the entire tone color of a band is enriched to a surprising degree. The shape and appearance of a tenor horn is almost exactly the same as that of an alto horn.

The euphonium is essentially the same in tone and range as the baritone horn. It is made either with one or two bells. On the two-bell type there is a fourth valve, which brings into play the smaller bell, providing an added tone color which is dramatically effective in solo work and for such efforts as imitations and echoes.

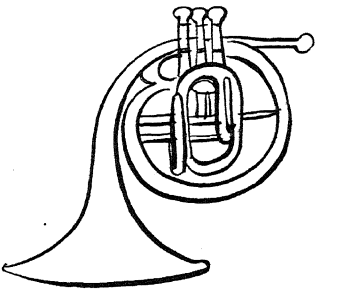
The recording bass is the powerful instrument that goes oom-pah, oom-pah in the band to mark the time and accentuate the beat. It has a deep, rich tone of really thunderous power.

Most symphony orchestra players prefer a bass horn with an upright bell, instead of the curved bell of the recording bass. They also prefer to call their instrument a bass tuba, although it is also known as an upright bass. In an orchestra the bass tuba marks the time, but is also used to provide soft, rich bass notes to complete chords made by the other instruments.

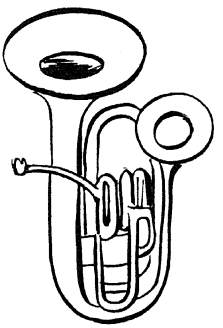
The function of the big Sousaphone is much the same as that of the recording bass. It is an instrument that most of the time goes oom-pah, oom-pah, lending its own distinctive power and richness to the general ensemble of the instruments. It is named for the famous band director and "March King," John Philip Sousa.



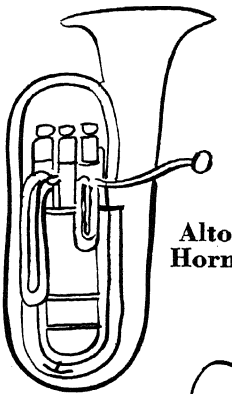
French Horn



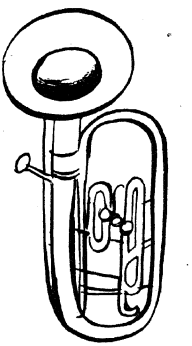
Mellophone



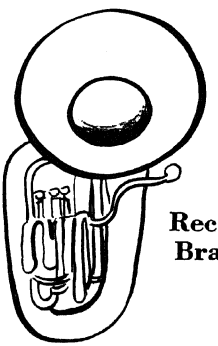
Double Bell
Euphonium



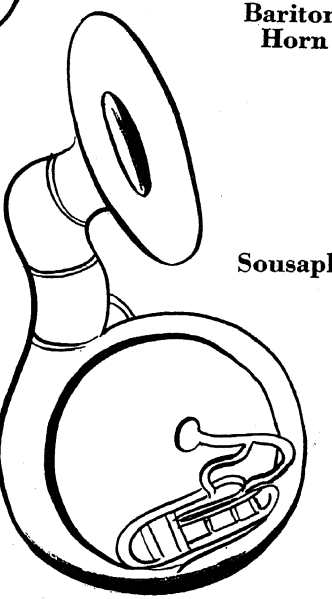
Alto
Horn



Baritone
Horn



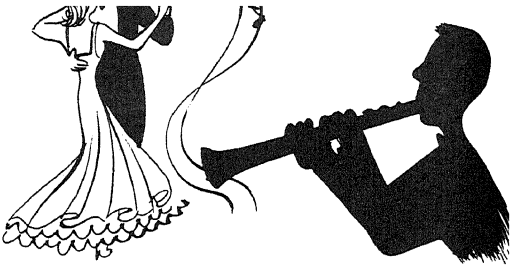
Recording
Brass



Sousaphone

FIGURE 83

Chapter 14
THE CLARINET



THE CLARINET is one of the most valued of the symphony orchestra instruments and in recent years has come into great prominence in dance orchestras, both "hot" and "sweet." It also has an important place in military bands where it plays many parts that the violins play in an orchestra. The clarinet has a resonant "reedy" tone and a very wide range of tonal expression. It is not a loud instrument and for this reason is well suited for home playing.

There is a great variety of music arranged for clarinet and piano, and every clarinet player should make his or her own collection of the pieces arranged in this way that they like best.

Clarinets are made that are pitched in the keys of B flat, A and E flat, but the B flat clarinet is the most popular and the most widely used. When you read and finger the note C in a piece of music and blow into a B flat clarinet, the note that comes out is B flat. It makes tones, that is, that are a whole tone lower than the piano tones played from the same written notes.

The clarinet was invented a little before the year 1800 by a flutemaker of Nuremberg, Germany, named Johann Christoph Denner. His first instrument had only five keys and was very primitive as compared with the beautiful instruments of today, equipped with key mechanisms that permit extremely brilliant and flexible execution.

Clarinets today are usually made of Grenadilla wood, though some are made of metal, and their mouthpieces are made of ebony, hard rubber, crystal or plastic.

How to Hold the Clarinet

Fig. 84 shows how a clarinet or "licorice stick," as it is called by swing band players, is held when you are going to play it.

The fingers of the left hand rest on the upper keys and holes, and the left arm should be held several inches clear of the body for freedom of movement.

The fingers of the right hand rest on the lower keys and holes, and the right elbow should be held a little away from the body. The right thumb should press slightly upward against the thumb rest to balance and support the instrument.

FIGURE 84

Producing the Tone

To produce a tone on the clarinet you do not just put the mouthpiece between your lips and blow. There is a little more to it than that, but it is all simple to do.

First, moisten the reed thoroughly. Then draw your lower lip back over the lower teeth to keep the teeth away from the reed. Put the mouthpiece between your lips and put the upper teeth firmly on the upper part of the mouthpiece about one-quarter of an inch from the end or point. You must hold the mouthpiece firmly but without too much pressure, for this would keep the reed from vibrating.

Close the corners of your mouth tightly so no air can escape through them. Then blow gently into the mouthpiece. The first few trys may sound something like the trained seals in the circus, but that is only to be expected. Everybody goes through that stage; but everybody soon gets over it. As with other wind instruments, playing long-sustained tones is the best way to strengthen your lips and improve the quality of your tone.

Making the Notes

Fig. 85 shows the section of the clarinet that has all the keys and holes with which the notes are made with the fingers.

It also shows all the notes except those from F# in the first space of the staff to Bb on the third line of the staff and the very highest notes. These are shown in Fig. 86 and Fig. 87.

Notice that there are notes at both the top and bottom of Fig. 85. The notes at the top of the column are different from those at the bottom; but both notes in each column are produced by the same fingering.

In Fig. 85 the holes of the clarinet are numbered 1, 2, 3, 4, 5 and 6. The keys—and there are quite a lot of them—are designated by the letters A, B, C and so on down the alphabet to P. Where these numbers and letters appear in the columns it means that the hole indicated is to be covered and the key indicated is to be pressed down.

For some of the notes you will see that there are two or more

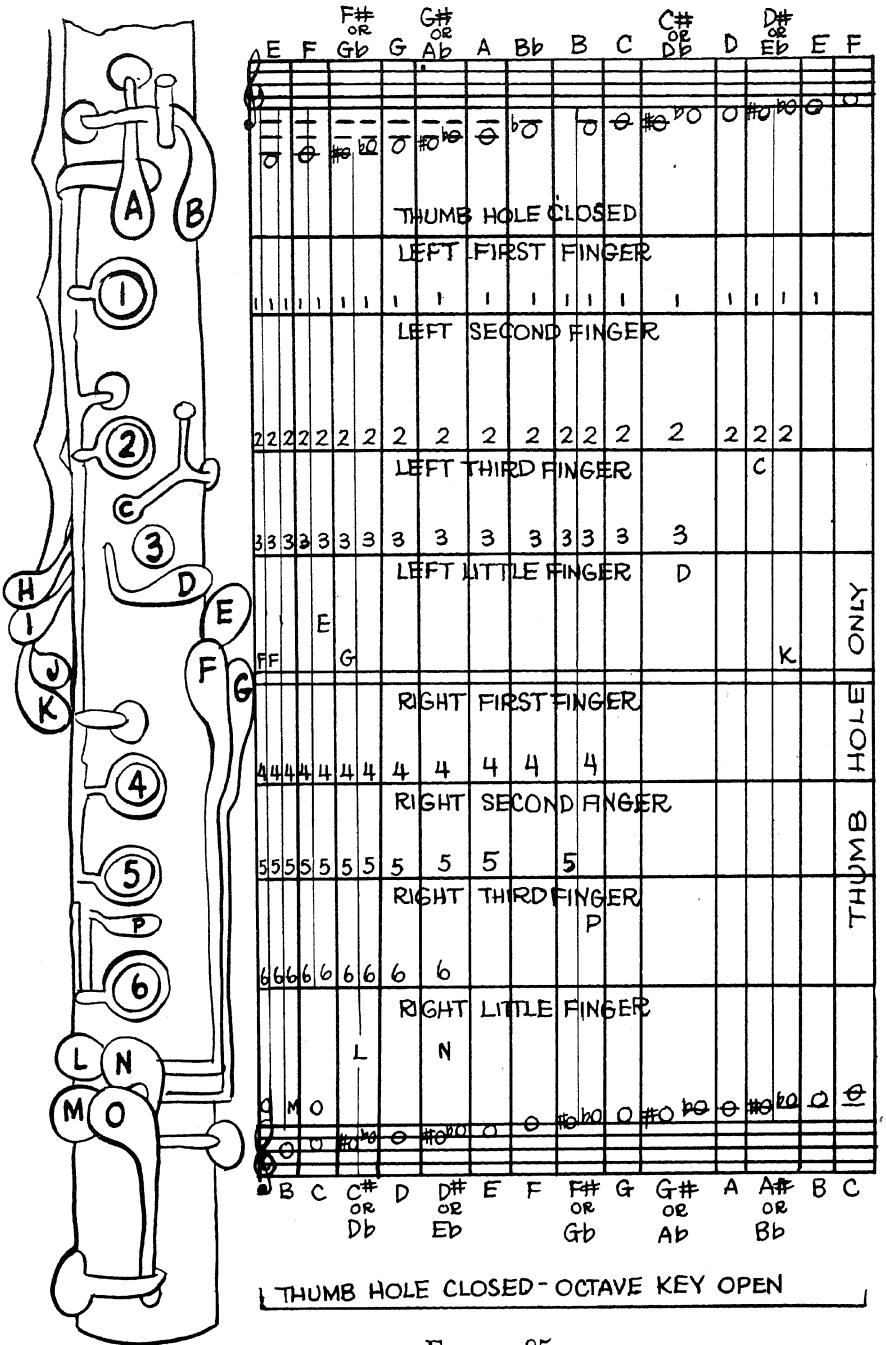

E F F♯ or G♭ G G♯ or A♭ A B♭ B C C♯ or D♭ D D♯ or E♭ E F
THUMB HOLE CLOSED
LEFT FIRST FINGER
LEFT SECOND FINGER
LEFT THIRD FINGER
C
LEFT LITTLE FINGER
D
E
G
K
FF
RIGHT FIRST FINGER
RIGHT SECOND FINGER
RIGHT THIRD FINGER
P
RIGHT LITTLE FINGER
L
N
M
O
THUMB HOLE ONLY
B C C♯ or D♭ D D♯ or E♭ E F F♯ or G♭ G G♯ or A♭ A A♯ or B♭ B C
THUMB HOLE CLOSED - OCTAVE KEY OPEN

FIGURE 85.

methods of fingering. Players gradually learn these and use the one that is most convenient as they are playing along.

Here is where the fingers go when playing:

The left first finger plays on Hole 1 and the A and B keys.

The left second finger plays on Hole 2.

The left third finger plays on Hole 3 and key C.

The left little finger plays on keys D, E, F and G.

The left thumb plays on the thumb hole and the octave key. (Fig. 86.)

The right first finger plays on Hole 4 and keys H, I, J and K.

The right second finger plays on Hole 5.

The right third finger plays on Hole 6 and key P.

The right little finger plays on keys L, M, N and O.

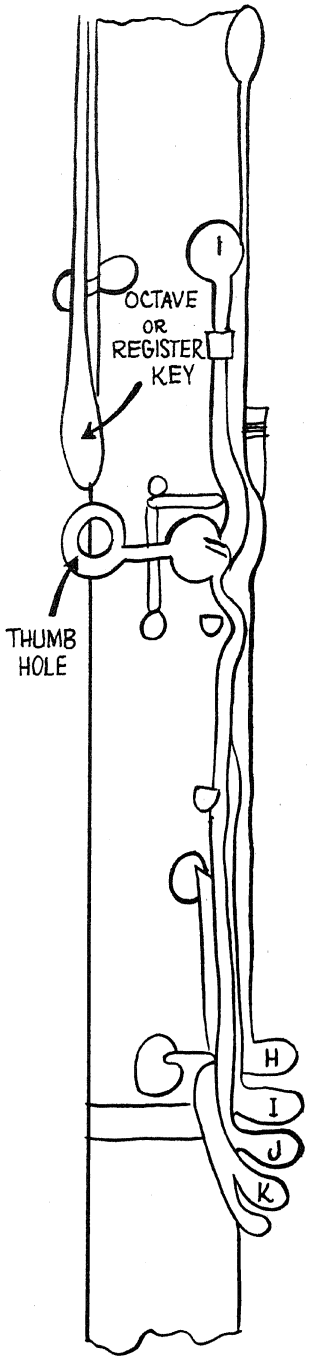
Fig. 85 is condensed and may seem a little confusing at first. Take your clarinet in your hands, however, and start to figure out the fingering, starting with low E and working up the scale, and you will soon catch on to how it is done.

Notice that for all the notes at the tops of the columns you keep the thumb hole closed with your right thumb. The octave key is also closed. For the notes at the bottom of the columns the thumb hole is closed, but the octave key is opened by pressing it down with your thumb.

Fig. 86 shows how to finger the middle register notes from F# in the first space of the staff up to Bb on the third line of the staff. These notes are shown separately because they are made somewhat differently from the other notes, using different keys. Fig. 86 shows the octave or register key and the thumb hole that are on the under side of the clarinet. It also shows the little keys H, I, J and K, which appear in Fig. 85.

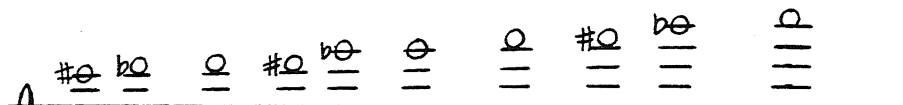
Since the figure shows the under side of the instrument, it cannot show the keys marked A and B in Fig. 85. The A key is used to make A, A# and Bb; and the B key is used to make G#.

Notice that there are two ways to make F#, one with the thumb hole open and the left first finger on Hole 1; the other



	F#orGb	G	G#orAb	A	A#orBb
1 HOLE OPEN / CLOSE THUMB HOLE		B	A	OCTAVE KEY AND A KEY	
THUMB	THUMB	THUMB	THUMB	THUMB	
RIGHT 1ST FINGER ON J AND K	NO FINGERS USED				

FIGURE 86.



C# OR Db	D	D# OR Eb	E	F	F# OR Gb	G
			LEFT	FIRST	FINGER	
2	2	2	2	2	2	2
			LEFT	SECOND	FINGER	
3	3	3	3	3		
			LEFT	THIRD	FINGER	
				D		
			LEFT	LITTLE	FINGER	
4 J AND K	4	4	RIGHT	FIRST	FINGER	4
5			RIGHT	SECOND	FINGER	5
		P	RIGHT	THIRD	FINGER	
			RIGHT	LITTLE	FINGER	
					N	N
THUMB HOLE CLOSED - OCTAVE KEY OPEN						

FIGURE 87.

with the thumb hole closed and the right first finger on keys J and K.

The other notes are all made with the thumb hole open. For B you press down key B (Fig. 85) with your left first finger. For A you press down key A (Fig. 85) with your left first finger. For Bb you press down key A with your left first finger and the octave key with your left thumb.

The higher notes are shown, together with their fingering, in Fig. 87. The numbers and letters in the columns are arranged exactly as in Fig. 85, to which you can refer to locate holes and keys. These notes are all played with the thumb hole closed and the octave key open.

The higher notes require a little more pressure on the reed to bring them out clearly.

Playing the Clarinet

The average person has little difficulty in learning how to finger the notes. What takes practice is learning how to make a good tone and this comes about gradually as you play and practice holding long-sustained notes.

As with any other instrument you can start to play tunes and melodies just as soon as you learn to read and finger the notes. Your progress is really entirely up to you. It always helps, though, if you have musical friends with whom to play.

Start your practicing with the middle register notes and those just below them, and play them up and down the scale until you know them. Then try out some simple tunes and go on from there at your own pace.

Chapter 15
THE OBOE, BASSOON AND ENGLISH HORN

LIKE THE clarinet, the oboe, bassoon and English horn are reed instruments on which the tone is produced by causing a reed to vibrate. All three of these instruments are indispensable to a symphony orchestra, but are seldom used for solo work or for playing popular music. They are played on the same general principles as the clarinet.

The oboe is the treble member of the wood wind instruments and has a double reed mouthpiece, which is quite hard to learn to use. Its range is from Bb below the treble staff to high F, and it has a distinctive thin, reedy tone. The oboe's name comes from the French word *hautbois*, meaning "high wood" or high-pitched wood wind instrument. In early days the oboe was commonly called the hautboy, and this was gradually modified to oboe.

The bassoon also has a double reed mouthpiece and is a member of the oboe family of which it is the bass. That is how it got its name, which indicates that it is the big bass of the wood wind instruments. It is a large instrument about four feet long, and its mechanism and fingering are very intricate. The notes are produced by using the fingers on seven holes and seventeen or nineteen keys. The bassoon has a tremendous range, which extends from Bb below the bass staff to Ab in the second space of the treble staff or by means of an additional mechanism to C or even F. Partly because of this and partly because of its unique deep tones, the bassoon has been a great favorite with many of the master composers such as Beethoven, Mozart and others.

The English horn or *cor anglais* is the tenor of the oboe family. It differs slightly in construction from the oboe, being wider and longer and having a globular bell at the lower end. The double reed mouthpiece is attached to a curved metal crook at the upper end. The fingering and method of producing the tone are, however, so similar in both instruments that a person who plays one can easily master the other. The tone is penetrating and reedy, like that of the oboe, but mellower.

It is not an English instrument and nobody is certain how it got its name. The favorite theory is that it is a corruption of the French words *cor angle,* meaning "angled horn" and referring to the angular bend of the early instruments.

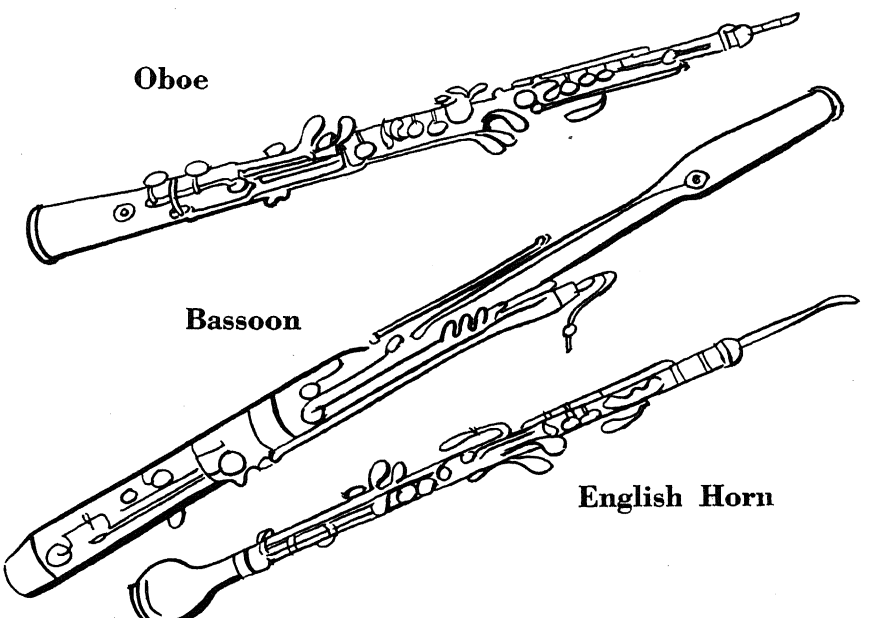


FIGURE 88

Chapter 16
THE FLUTE AND PICCOLO

THE FLUTE is made of silver and its tone is usually described as "silvery," which is about as close as one can come to it. It is a beautiful, pure tone, which is used in many different ways to supplement the tones of the other instruments and enrich the ensemble tone of an orchestra or band.

For playing solos, and for playing duets or trios with the violin, viola, clarinet or saxophone, the flute is an ideal instrument, for its tone adds a quality that no other instrument can produce.

The piccolo is used chiefly in orchestras and is usually played by one of the flute players or flautists. It is a high-pitched, exciting little instrument that plays an octave higher than the flute. You have probably heard it in the "Ride of the Valkyries" in which its shrill trilling, piercing through and over-riding the sonorous tones of the mighty brasses, whips the music up to its tremendously exciting climaxes.

Producing the Flute Tone

The flute is held with the mouthpiece or embouchure just below the lips, and with its length extending out to your right. The fingers of the left hand rest on the upper keys, and the right-hand fingers on the lower keys. The word embouchure, by the way, is built up around the French word *bouche*, meaning "mouth" and is pronounced "ombooshure."

At first, most people have a little difficulty blowing into the embouchure the right way to get a good tone. If you have the

same difficulty, you may be sure that it is the common experience of all beginners. With practice, anyone can soon learn how the thing is done. We will give as explicit directions as we can.

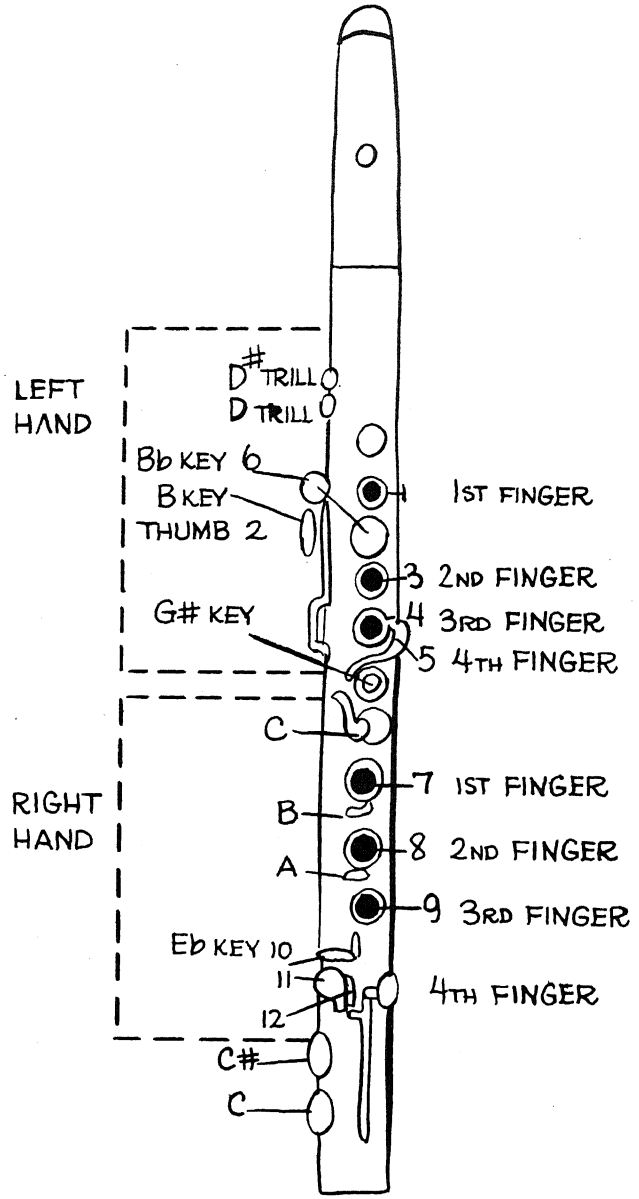
Rest the inner edge of the embouchure on the center of the lower lip, at the bottom line of the lip. This is the best position for most players, but you may find it easier to have the embouchure a little higher or even a little lower. As a rule, the embouchure should be turned in a little toward the mouth.

Let your upper lip project slightly over the lower lip. Then tighten your lips a little by tightening the muscles at the corners of the mouth. Have the center of your lips slightly parted.

Now, the next step, the actual blowing. Do not blow directly down into the embouchure. Blow against its outer edge, the edge furthest away from your mouth. The tone is produced by your breath striking the edge of the embouchure. Some of the air should pass over the edge of the embouchure, but not too much, for this produces a loud, high-pitch tone. Also, if too much air goes into the flute and too little over the edge of the embouchure, the tone will be poor and low in pitch.

Those are the secrets of how to produce a flute tone, and they may take you a week or two to master. One fault to guard against is holding your lips too stiff. Most beginners do this without knowing it during their early struggles and produce a hard tone.

When you get to playing tunes, you will want to practice "tonguing." You use your tongue when striking a note to make it sharp and clear. The method is to pronounce silently the word "tu" each time you start to blow. This forces the tongue forward to a point between the top of the teeth and the roof of the mouth. Do not let the tongue drop down and touch the teeth. That does not help the tone. The main rule about tonguing is that you should always start each tone by tonguing it, so it is a good idea to start practicing the "tu, tu, tu's" right from the start.



C	C# OR Db	D	D# OR Eb	F# OR Gb	G	G# OR Ab	A	A# OR Bb	B	C	C# OR Db	D	D# OR Eb
1	1	1	1	1	1	1	1	1	1	1			
2	2	2	2	2	2	2	2	b	2	OPEN	OPEN	2	2
3	3	3	3	3	3	3	3					3	3
4	4	4	4	4	4	4						4	4
5	5	5	5	5	5	OPEN 5	5	5	5	5	5	5	5
7	7	7	7									7	7
8	8	8	8									8	8
9	9	9	9	9								9	9
10 11 12	10 11	OFF 10	10	10	10	10	10	10	10	10	10	OFF 10	10

Flute fingering

FIGURE 89.

Making the Notes

The flute that is most commonly played today is one that has the Boehm system of keys and on which the G# key is closed. This means that when you want to play G# you have to press down on the G# key with the little finger of your left hand. We mention this because there are also Boehm system flutes with open G# keys and everyone should know about the two kinds. The chances are ten to one today, however, that you will get hold of a closed G# key flute, which is the kind we describe here.

Fig. 89 shows the flute and the fingering for the notes of its first or low octave, from middle C (on the piano) to C in the third space of the staff, and also for the three next higher notes, C#, D and Eb.

There is no diagram for the next higher notes, from E to C two lines above the staff, because these are fingered exactly the same as the corresponding notes an octave lower, shown in Fig. 89.

Fig. 90 shows the fingering for the notes of the flute's third octave, from C# up to high C. The numbers in the columns are arranged just as in Fig. 89.

The figures in the columns indicate the keys and levers that are closed to form the notes at the tops of the columns. In studying the diagrams, however, there are several things to keep in mind.

One is that the G# key, number 5, is always closed unless you open it with the little finger of the left hand. Therefore, when you see the number 5 in a column, it does not mean that you have to press down key number 5. The key is already closed. Press down and open the key when no number 5 is shown.

The Eb key, number 10, is another key that is always closed unless you open it by pressing down with your right little finger. The way the flute is arranged, your right little finger has to be kept on this key, pressing it down, practically all the

time. You remove your little finger and allow the key to close only when you are playing the note D in the two lower octaves, and the three very highest notes, Bb, B and C (Fig. 85). This is important and is indicated in Fig. 84 by the number 10 at the bottom of most of the columns. Number 10 means to press down the Eb key, number 10.

The two lowest levers on the flute, numbers 11 and 12, are rarely used. They are used to make the two very lowest notes, C and C#. When you press down the levers, the keys marked C# and C are made to close. You press down lever 11 to make C#, and you press down levers 11 and 12 to make C. The rest of the time these keys stay open of their own accord, and you do not have to pay any attention to them.

The important thumb key or B key, number 2, and the little Bb key just above it, number 6, also require a little explanation.

Your left thumb rests on the thumb key almost all the time, keeping it closed. This is indicated by the figure 2 in the columns. The only notes for which you remove your thumb and allow the key to open are C in the third space of the staff, the C# just above it (Fig. 89), the high G and high C (Fig. 90). When the thumb key is to be open, no number 2 appears in the column.

The little Bb key, number 6, is used to make Bb. Simply slide your thumb over to cover it and press it down.

Apart from these rather specialized keys, the fingering and playing of the flute is very simple.

The first three fingers of the left hand play on keys 1, 3 and 4. All the left little finger has to do is to work the G# key when you want to play G#.

The first three fingers of the right hand rest on keys 7, 8 and 9, and usually spend most of the time playing them. Each one, however, has one extra duty.

The right first finger works the lever and key marked C, which is a key used for making trills. The subject of trills and the use of the trill keys is more complicated than one might

think and, since beginners rarely need to use these keys we are not including the special fingering diagrams that would be needed to explain all the details about them.

The right second finger works the lever marked B. This lever opens the D trill key at the top of the flute. In ordinary playing, you use lever B only when making the very high Bb (Fig. 90).

The right third finger works the lever marked A. This lever opens the D# trill key. This is used only when you play high B, the next to the highest note (Fig. 90).

The right little finger's chief function is to press down the Eb lever. It also, however, presses down levers 11 and 12 when you need to play low C# and C.

Reading what we have felt we should write about the fingering of the flute may be more difficult for many readers than picking up their flute, putting their fingers on the keys, and making the notes one by one. The flute fingering is not difficult. We have given explanations of the use of the several special keys because it is really difficult to figure out how to use them from the usual fingering diagrams.

Playing the Flute

The greatest difficulty that most beginners have with the flute is in producing a good, clear tone. This comes with practice and, as with other wind instruments, one of the best exercises to develop the lip strength needed for a good tone is to play sustained notes for a few minutes every day.

There is no reason on earth why you should not start to play tunes you like, including the melodies of popular dance tunes, as soon as you learn how to make the notes and can get a good tone. You only have to play one note at a time, and you will find that most melodies do not call for a wide range of notes or for very rapid playing.

Play as slowly as you like at first. Don't try to build Rome in a day. The more you play, the easier it gets, and little by little the blowing and the marking of the notes will become second nature to you.

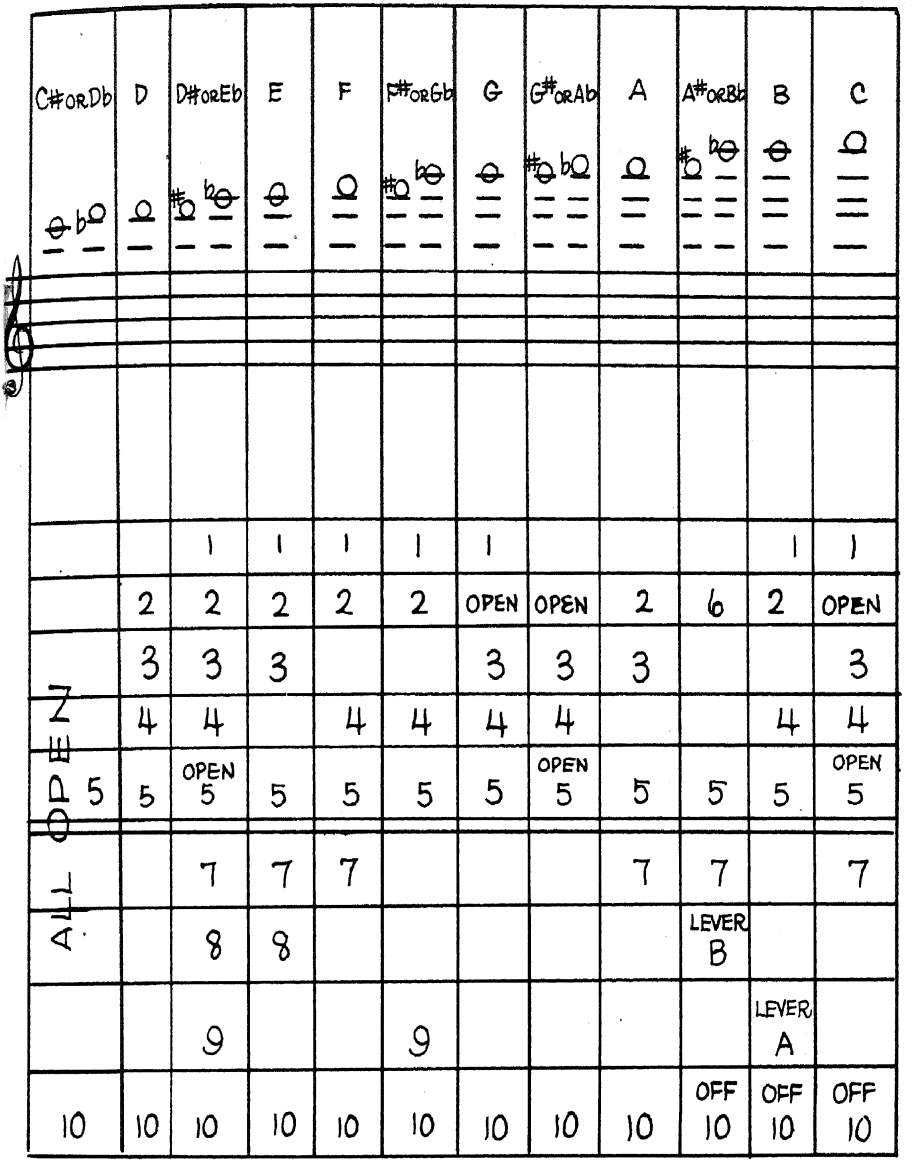
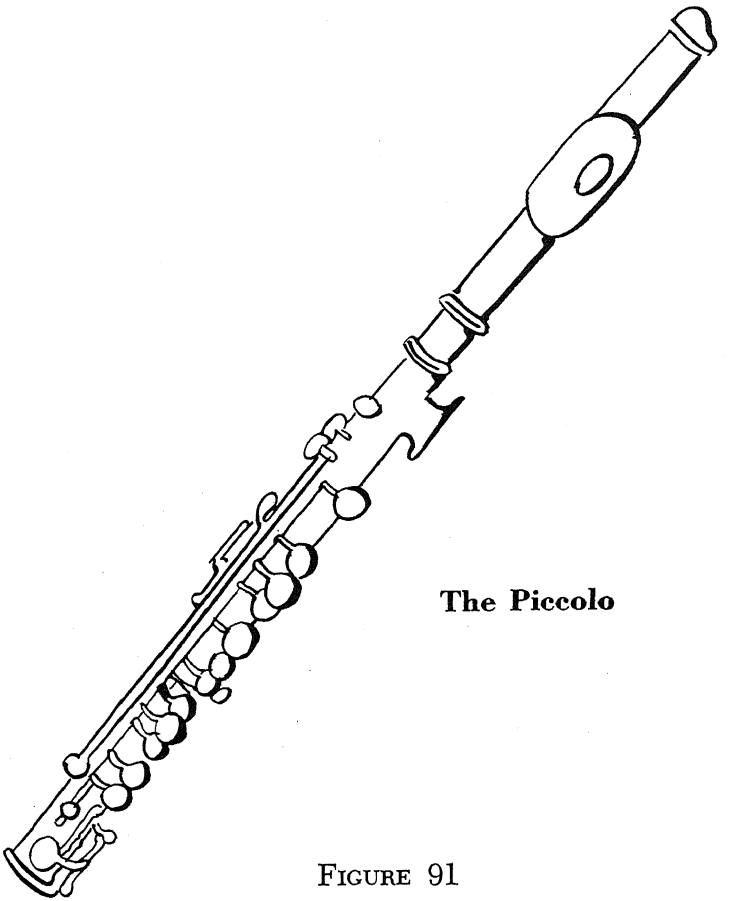


FIGURE 90.
Flute high notes



The Piccolo

FIGURE 91

The Piccolo

The piccolo is simply a small flute (Fig. 91). The keys are closer together, but the fingering is the same. As a consequence, anyone who can play the flute can pick up the piccolo very easily. By the same token, if you want to learn to play the piccolo only, you can do so by following the blowing and fingering instructions we have given for the flute.

Chapter 17
THE TROMBONE

THE GREAT increase in the number of dance bands has brought new and widespread popularity to the trombone, which plays a prominent part in making their music. Expert players can produce many novel effects and go in for "rips," "breaks" and other "hot" maneuvers. For those who like more serious music the trombone, with its rich golden tones, also has much to offer. It is an outstanding solo instrument and blends beautifully with other instruments for informal ensemble playing at home or in band and orchestra work.

Of all the brass instruments, the trombone has the most perfect pitch. Each note in its range of more than two octaves can be played exactly in tune if the slide is handled properly.

Producing Trombone Tones

The trombone is held by the left hand in the manner shown in Fig. 92. The first finger is put right by the mouthpiece, and the remaining fingers curl around the upright crosspiece. The fingers hold the instrument against the palm of the hand to hold it steady.

The right hand holds and guides the slide, which is moved in and out to form the notes. It holds the slide by the second or lower crosspiece, which it grasps between the thumb and the first two fingers, as shown in Fig. 92. The most important thing is to have the end of the thumb well positioned at or near the point where the lower crosspiece and the lower slide meet, and to keep the thumb there while playing.

When you are ready to start to produce a tone, put the

mouthpiece against your lips, at the center of your mouth. Put one-half of the mouthpiece against your upper lip and one-half against your lower lip. This is a good position for many players, but if it doesn't seem right for you, move the mouthpiece either up or down a little until you find the position that suits you best.

Put your lips lightly together and draw back the corners of your mouth, leaving a small opening at the center of the mouth for your tongue, which moves forward and backward when you are playing. Hold the mouthpiece against your lips and take a deep breath, drawing the air in through the corners of your mouth. Never breathe in through the mouthpiece.

Now blow gently into the mouthpiece, at the same time pronouncing the letter "T". This throws your tongue forward as required. The tone is made by this tongue action, plus your breathing into the mouthpiece, plus the vibration of your tightened lips. You use the tongue and the pronouncing of "T" to divide one tone from the next or, put another way, to make each separate tone.

When you make the low tones, the tongue should go forward a little further between the teeth and lips. For high tones, you pronounce "T" a little more forcibly. Also, for high tones, the lips are drawn a little tighter by drawing back the corners of the mouth.

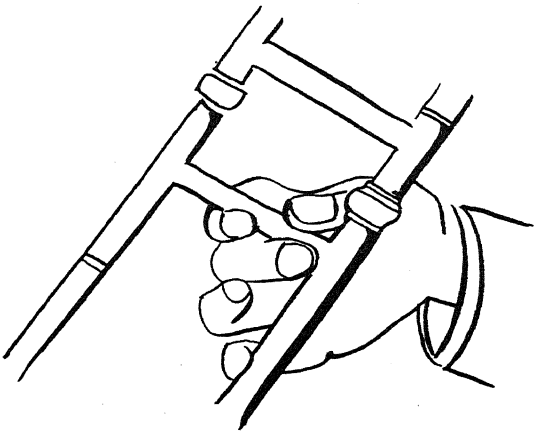
Never puff out your cheeks. Your face is to be kept motionless. Only the tongue is to move.

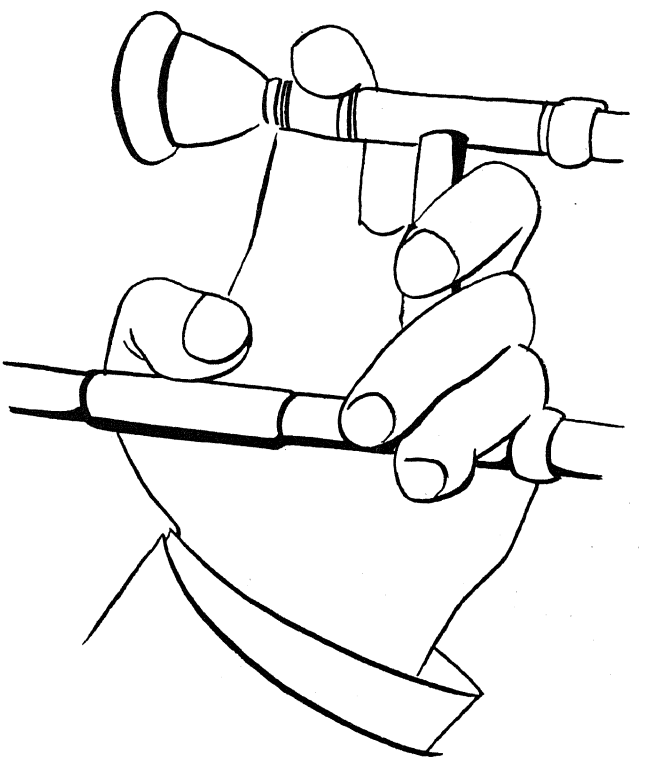
Making the Notes

The trombone most generally used is the one pitched in B flat. This means that when you read the note C in written music and play it on your trombone, you produce the tone B flat, one whole tone lower.

You make the different notes on a trombone by moving the slide in or out with your right hand. There are no marks to tell you just how far to move the slide, but every player soon learns the different slide positions that form the notes.

Right Hand





Left Hand

FIGURE 92

Seven slide positions are used. These are shown in Fig. 93, together with the principal notes made at each position. The first position means that the slide is closed or drawn back as far as it will go. The approximate distances the slide is moved forward to make the other positions is indicated. You will have to feel your way at first and experiment until you can hit the different positions unerringly.

For the second position—the slide is drawn out about 3½ inches. For the third position the slide is drawn out about 7 inches. To reach the fourth position you draw the slide about 3½ inches from the third, or 10½ inches from the closed or first position. The fifth position is 3½ inches beyond the fourth. The sixth position is about 4½ inches beyond the fifth, and the seventh position is 4½ inches beyond the sixth. At the seventh position the slide is about 23 inches from the closed position—a good, long reach for your right arm.

Try from the very start to memorize the different positions by measuring them with your eye and your arm. After a bit, this will become automatic if you apply yourself to it from the beginning.

In addition to knowing the distances of the different positions, it is most important that you use your ear at all times to ensure accurate pitch of the notes or tones. If a note sounds too sharp, draw the slide a little further out. If it is too flat, push the slide in a little. Hitting a note "right in the middle" depends chiefly on your ear and your simultaneous movement of the slide.

Notice that music for the trombone is written in the bass clef. Notice also that although most of the accidentals (corresponding to the black notes on a piano) are marked with a flat, they are at the same time sharped notes. At the 5th position, for example, Gb is the same note as F#, and Db is the same as C#.

To get familiar with how the notes are made, a good practice is to play the scale of B flat. The trombone is pitched in B flat

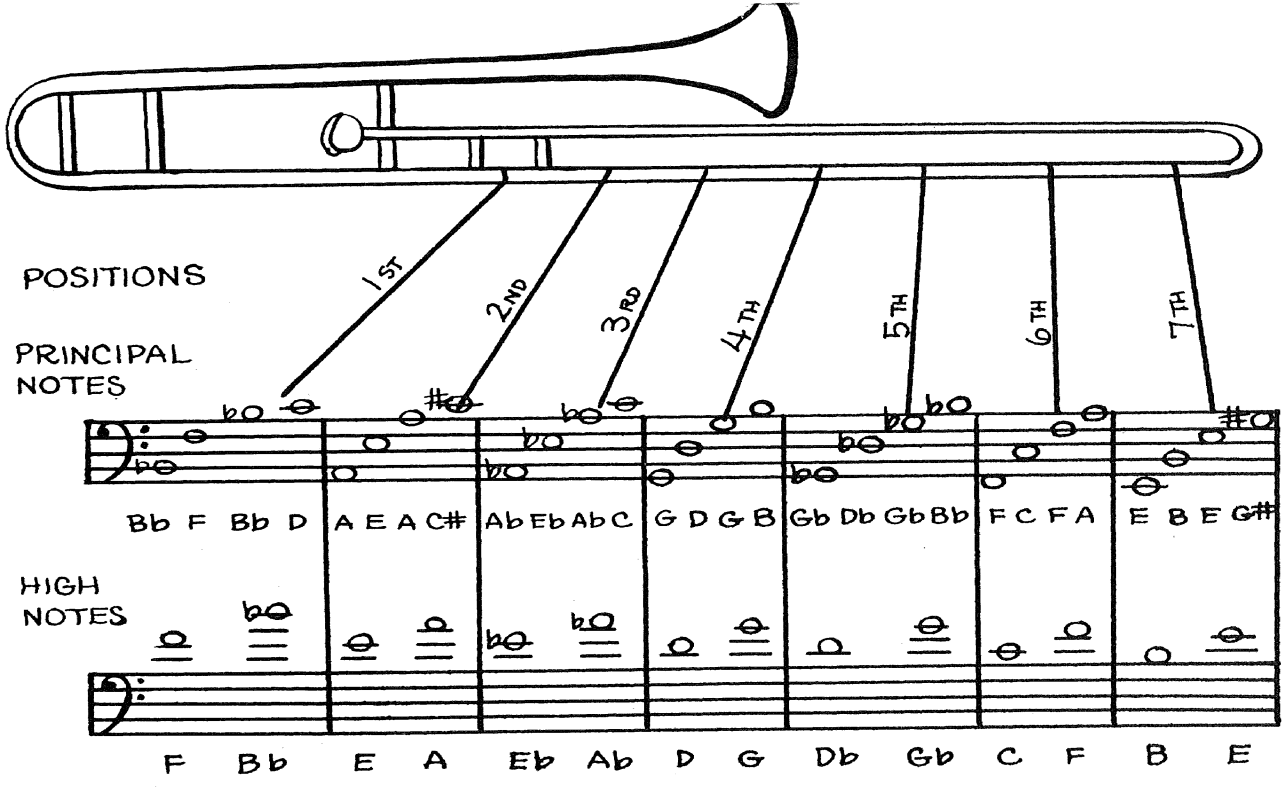


FIGURE 93.
Trombone positions and notes

and this note is in the first and easiest position. The scale is shown in Fig. 94, together with the position of the slide at each note. Play this scale up and then play it down, and you will begin to get the feel of the instrument and how it works. Then play all the notes made at the first position, and at each succeeding position. Play them slowly and carefully, as this practice will then familiarize you with the different note positions. Then try playing "Jingle Bells," playing D for the first six notes —"Jingle Bells, Jingle Bells."

Points on Playing the Trombone

You will need some simple tunes on which to practice, and should get a book of melodies arranged for the trombone at your music store. They will give you "Jingle Bells" and many other pieces that you should be able to play without difficulty once you have learned how to make the notes. They will also familiarize you very quickly with the principal notes that are used in much of the trombone music.

Keep in mind that when you are playing, and particularly when you are playing quickly, you must work the slide and your tongue at the same instant in producing the notes.

Do not spend much time at first in playing the high notes. Wait until you develop your lip strength, when they will come more easily.

You should find at your music store music written specially for the trombone or for the trombone and piano, if you have a friend who can play the piano with you. The music that is specially arranged for the trombone can be played right from the written notes. It does not have to be transposed. If you are playing from a regular song book, with the melody written in the treble clef, you have to transpose each note one tone higher. Lots of people can do this, but it is hard for beginners.

When you are playing, you should quite frequently free your trombone of water. This is done by using the water key at the front of the slide. Be careful never to let the water drain off through the mouthpiece.

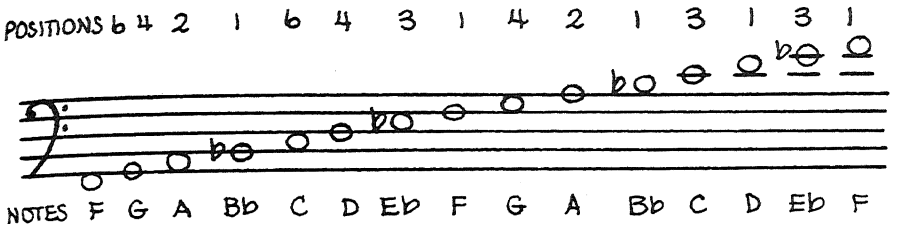
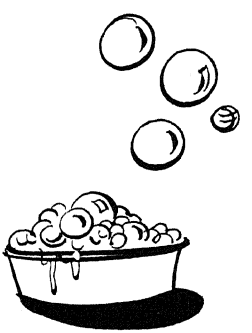


FIGURE 94

As you play, you will become familiar with a number of notes that can be made with the slide in different positions. Thus, the F made with the slide at the first position (Fig. 93) can be duplicated with the slide at the sixth position. The higher A made with the slide at the second position can also be produced when the slide is at the sixth position, and so on. As you go along, you will learn to play the note that is nearest and most convenient to reach, whenever you have a choice of this kind.

Your trombone needs different care from that required by other instruments because of the nature of its mechanism. You should clean the slide every so often with kerosene or gasoline and then put a few drops of oil on it so it will slide easily. It is best to use oil specially made for the trombone, which you can get at music stores. Once a week you should clean the inside parts by running lukewarm soap suds through the tubes, and then rinsing with clear warm water.



Chapter 18
THE RECORDER

PEOPLE of all kinds have taken to playing the recorder in recent years, charmed by the mellowness of its tones and pleased by the simplicity of the fingering used to make the notes. To some extent, the instrument's new popularity may be due to the concerts given in all parts of the country by the Austrian Trapp family. This delightful group has introduced recorder playing to thousands of people, many of whom have gone right off to music stores to get their own recorders.

The recorder is a very ancient instrument, which has a fascinating historical background. It was used by the ancient Egyptians, Assyrians and Greeks and by the Aztecs of Mexico. During the Middle Ages it was played throughout the European countries, and its popularity is attested to by the fact that Henry VIII had seventy-five recorders, which he was very fond of playing. A century and a half later, we find Pepys referring to the recorder in his famous diary. Thus, on April 8, 1668, he wrote: "Did buy a recorder, which I do intend to learn to play on, the sound of it being, of all sounds in the world, most pleasing to me."

One of the greatest pleasures that recorder players have is in playing duets, trios, and quartets with their friends. This is possible because there are soprano, alto, tenor and bass recorders, each with a different range of notes and each able to play its part as a voice would sing it. The alto is the one that is most widely used for solo playing, though the soprano is also popular.

Playing the Recorder

There is no trick to producing a good tone on the recorder. You simply blow gently into the mouthpiece and the sound comes forth. You should cover only about a quarter of an inch of the mouthpiece with your lips, and you should not touch the mouthpiece with your teeth. As with other wind instruments, the best way to develop a good tone is to practice playing sustained notes for a few minutes every day.

"Tonguing" is also used on the recorder to get clear, sharp tones. Do not use the tongue at each note, but silently pronounce the word "tu" each time you begin to blow. For the lower notes, use the word "du".

The recorder has only eight holes, of which one, the thumb hole, is at the back. The first, second and third fingers of the left hand cover the three upper holes, with the left thumb on the thumb hole. The little finger of the left hand is not used. The first, second, third and fourth fingers of the right hand cover the four lower holes.

The fingering of the soprano, alto and tenor recorders, the three most commonly used kinds, is shown in Fig. 96. This

FIGURE 95

fingering applies to most recorders, but a few notes differ on instruments of different makes. In the figure a white dot means an open hole and a black dot means a hole closed by the designated finger. The half white, half black dot means a partly closed hole. This is accomplished by putting the finger very lightly on the hole so some of the air can escape through the hole when you blow. This is a little tricky until you get used to it.

You will notice one other symbol used in connection with the left thumb hole. This is a black dot with a small white space at the top. When you see this, it means to press the end of the thumb into the hole, leaving open only a small space above the nail.

Study the fingering chart (Fig. 96), and practice the notes slowly one at a time until you can play up and down the scale. Once you reach this stage, you are well on your way and can start in whenever you wish to pick out simple tunes.

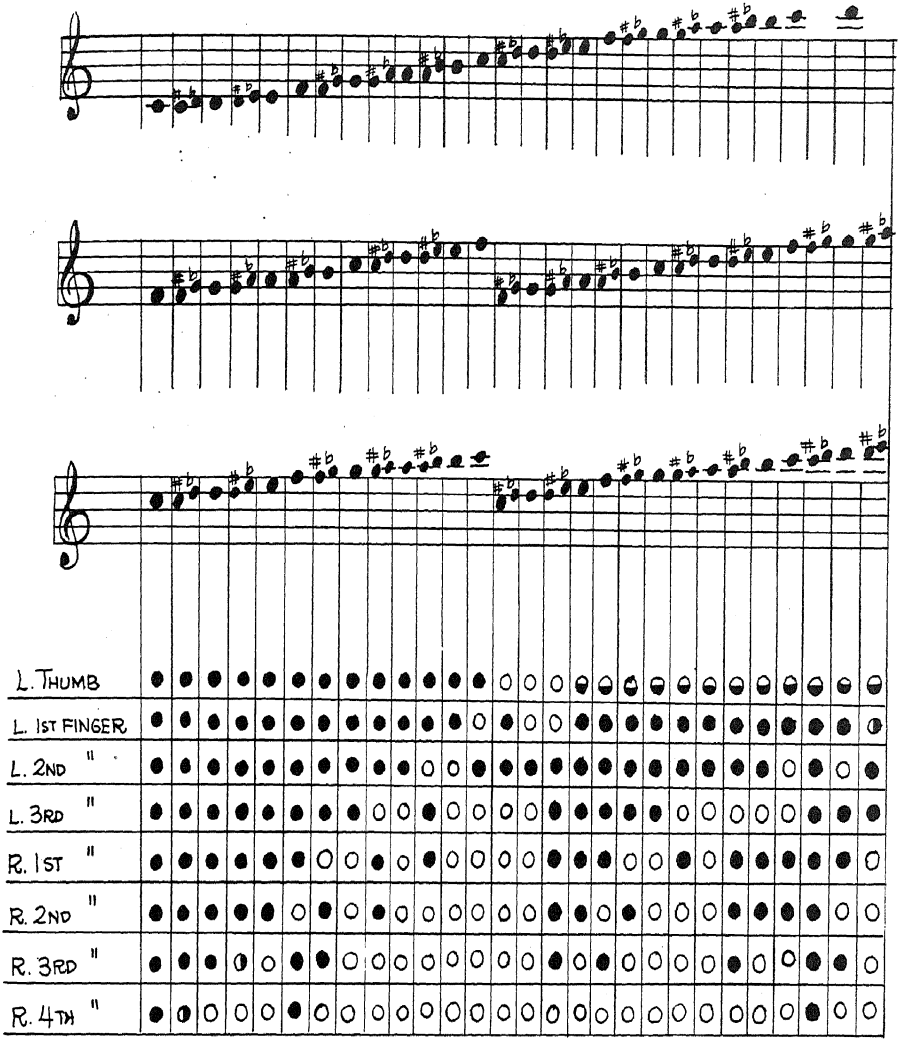


FIGURE 96.

Recorder fingering

Chapter 19
THE HARMONICA

WHAT A FLOOD of music a good player can get out of a harmonica or mouth organ! It is almost a magic instrument when an experienced player gets hold of it. Single-note tunes, melodies with three-note accompaniments, and sonorous chords all come flowing out of this simple instrument when you get the knack of making it work for you. And another thing—you don't have to be able to read music to play the harmonica. You can play tunes you know by ear, as we will explain.

There are three principal kinds of harmonicas. These are the plain harmonica, the concert, and the chromatic types. The plain harmonica (Fig. 97) is the most popular one, and the best kind for a beginner to start with. It has ten tone holes, each of which produces two different notes, one when you blow, and the other when you draw in your breath. This is due to the fact that there are two reeds in each hole—one for the blow note and the other for the draw-in note. The concert harmonica (Fig. 99) has two rows of holes, and the reeds in the upper holes are tuned one octave (eight notes) higher than those in the lower holes directly beneath them. Thus, when you blow, you play two notes an octave apart. The same thing happens when you draw in your breath, but you make a different note. The concert type makes a grand noise a good deal like a small brass band.

Both of these harmonicas are made in several different keys, ranging from G up to F. The ones in G are pitched very low,

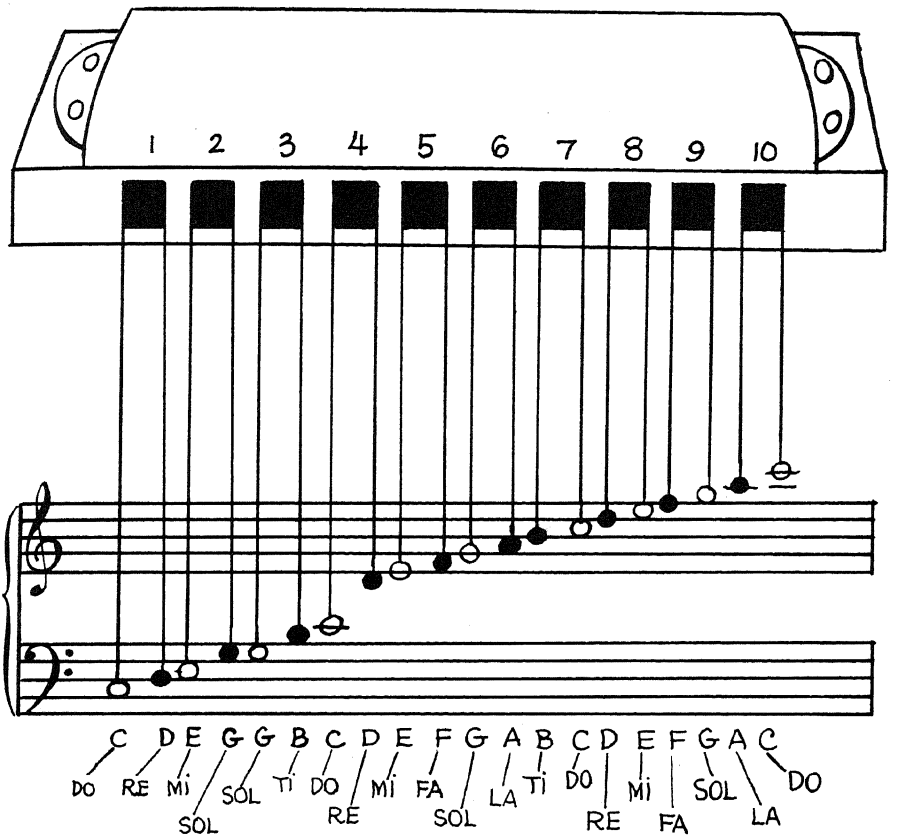


FIGURE 97. Harmonica notes

while the one in F is very high. Between these two is the harmonica in C, which is the one most everybody uses. That is the one we would recommend a beginner to get, but we will tell you how to play one pitched in any key.

The chromatic harmonica (Fig. 100) is relatively new and is quite some instrument. On the plain and concert type harmonicas you can play only natural notes—no sharps or flats. The chromatic harmonica, however, can play both sharps and flats, which enables you to play a good many more tunes than on the ordinary kind. How the chromatic harmonica works is explained below.

How to Blow the Harmonica

There is a certain knack to blowing the harmonica and it takes a little practice to learn it. But once you do, you are all set.

Each hole of a harmonica produces two tones. You make one tone by blowing, and the other by drawing in your breath. The first thing you must learn is to blow into only one hole and sound only one note at a time. This is done by what is called "tonguing."

Hold the harmonica in your left hand, with the first and second fingers on top and the thumb beneath. Have the No. 1 or lowest tone hole at the left. Put the harmonica well into your mouth, with the lips covering only the first four holes on the left side. Then press the flat of your tongue (the front part of its top) against the first three holes, covering them so only the fourth or right-hand hole is open. Be sure to use the flat of your tongue, not the tip. Now blow and you will sound the fourth note only. Draw in your breath and you will sound the other note made by the fourth hole.

The other, higher notes are made in the same way. Each time you cover three holes with your tongue and sound only the note just to the right of them. You should practice to have your lips always cover just four holes at a time. This helps in sounding just the one note you want to play.

Playing the Harmonica

We will assume that you have a regular, plain harmonica pitched in C and with ten tone holes, which is the kind most commonly used. The notes that it will make are shown in Fig. 97. The white notes are the ones you make by blowing, and the black notes are the ones you make by drawing in. Notice that three notes are missing—the low F and A, and the high B.

As a general rule, the first three holes on the left are not used very much. This is chiefly because tunes played on the harmonica rarely go lower than middle C.

Start by learning to play the scale. Blow into hole 4 to make C. Then draw in your breath through the hole and make D.

Now move your lips a little to the right so they cover holes 2, 3, 4 and 5. Cover 2, 3 and 4 with your tongue and blow into hole 5. This makes the note E. Draw in and make F.

Continue on up the scale, going slowly in order to get the "feel" of how the notes are made. Notice that when you come to hole 7, you draw in to make the hole's first or lower note, and blow to make C, the higher note. Notice also that it takes only four holes to make the complete eight-note scale from C to C. Practice at first going up as far as G. You will probably not use the high A and C very much at the start, and can pick them up after you have mastered the other notes. After you have gone up the scale several times, be sure to practice coming down it. You will have to know it both ways when you start to play tunes.

We have found that it helps some beginners to notice and remember that you always blow to produce the notes C, E and G; and always draw in to produce D, F, A and B. The only exception to this rule is the low G, which is seldom if ever played as a single note. This G sounds when you draw in.

Once you have learned the notes, you can play dozens of tunes like "My Old Kentucky Home", "Oh, Susannah", "Home On The Range", "John Peel" and "Santa Lucia". Play them by ear or from music written in the key of C (no sharps or flats).

Playing by Ear

If you can't read music, you can play the harmonica by ear. It is practically the same thing as whistling or humming a tune. Tunes for the plain harmonica almost always start on the notes C, G or E. Try out which note seems most logical, and if it doesn't work out try one of the others. Just imagine you are singing and the tune will almost play itself if you have become good and familiar with the harmonica's notes.

Harmonicas of Different Pitch and Size

If you have a harmonica that is not pitched in C, you can play it just the same, without any difficulty. Look at Fig. 97 and you will see the musical names of each note written under it—Do, Re, Mi, and so forth. Play the fourth note from the left on a ten-hole harmonica and it will always be Do, the first note of the scale in which the harmonica is tuned. Play right up the scale, as explained above, and you will have all the notes that correspond to those of the C scale on a harmonica pitched or tuned in C.

Some harmonicas have more than ten holes and can, therefore, make more notes. Some have two full octaves and some even run as high as three octaves. Each octave is usually played exactly as we have described above the playing of the octave on a plain ten-hole harmonica. On some of the larger harmonicas, however, each tone hole makes only one note instead of two.

If you have a harmonica with more than ten holes, all you have to learn about it before starting to play is where to start the scale. In other words, you must locate "Do," the first note in the scale. On the larger harmonicas "Do" is usually found on the fifth or seventh hole, depending on the make of the instrument. After you have located "Do" you play up and down the scale in the same way as on a ten-hole instrument.

Chord Accompaniments

Most players prefer to play only one tone at a time on the harmonica, just as though they were playing a melody on a violin or flute. Others, however, like to add a chord accompaniment. This is easy to do by the use of the tongue. Just remove your tongue from the three holes to the left of the hole you are playing, and as you blow or draw in the reeds in these three holes will produce a three-note chord in perfect harmony with the note of the fourth hole.

Always play a single note first. Put your tongue on the instrument as usual, then take it off and put it back on quickly to make single notes and chords as required.

Keep your tongue on the instrument for single notes; take it off for a chord.

The Vibrato

Another effect a lot of harmonica players like to use is the vibrato, which gives a tremolo effect as the notes are played. Fig. 98 shows how the hands are placed to produce this effect. Put the left or low-note end of the harmonica against the middle joint of the left thumb, and put the other end between the second and third joints of the right second finger. The right hand should point up with the fingers bent slightly forward.

FIGURE 98.

Move the fingers of the left hand to meet the same fingers of the right hand. The two little fingers and the sides of the hands should touch or almost touch. This forms an air chamber between the hands. Now, by opening and closing the right hand quickly in a vibrating manner, you can produce a first-class tremolo. Some players like to move the left hand to get this effect. It seems to be a matter of personal choice.

The Concert Harmonica

The concert, octave or double hole harmonica (Fig. 99) could be described as two plain harmonicas in one. It is a little larger and the tone holes are divided in two. This makes a total of twenty holes instead of ten—ten upper holes and ten lower holes. Each double hole produces the same note, such as C, but the C of the upper part is an octave higher than the C of the lower part.

You play the concert harmonica in exactly the same way as a plain harmonica. The only difference is that the concert harmonica produces two notes instead of one and you therefore have a larger volume of tone.

Concert Harmonica

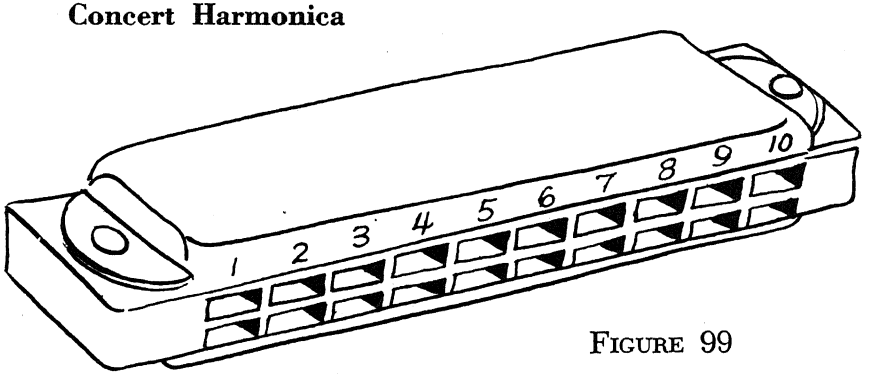


FIGURE 99

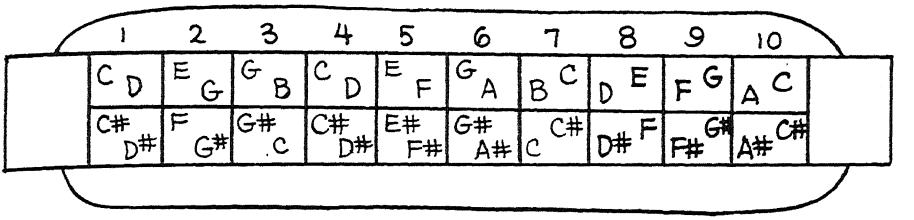


FIGURE 100

The Chromatic Harmonica

A chromatic harmonica may best be described by saying that it consists of two separate ten-hole harmonicas placed one directly above the other. The lower instrument is tuned one half-note higher than the upper one. Thus, if an upper hole produces the tone C, the hole beneath it produces C#, one half-note higher.

Inside the harmonica there is a metal slide with rectangular holes in it, which is pushed in by a knob operated by the right hand. When the slide is out, in its normal position, the upper ten holes are open and the lower holes are closed. When you push in the slide, it covers the upper holes and opens the lower ones.

With a ten-hole chromatic harmonica you can make all the notes of the chromatic scale except the F#, A and A# in the lower octave and B in the top octave. (Fig. 100.) The lower notes are rarely played singly. The first three holes are used only for chord accompaniments. With a twelve-hole chromatic, you can make all the notes. (Fig. 101.) In these figures the higher letter in each tone hole indicates to blow, the lower letter tells you to draw in. Only sharped notes are shown, but each of these is also a flat. A#, for example, is the same as

the frequently used B flat; and D# is the same as E flat.

There are some differences in the arrangement of the notes in the twelve-hole chromatic harmonica. For example, C in the lower parts of hole 4 and hole 8 is made by drawing instead of blowing as is usual for C. Also, high D has been placed in hole 12 to give an extra note.

Playing the Chromatic Harmonica

The chromatic harmonica is held in the left hand in the same way as the regular harmonica with the fingers on top and the thumb beneath. The right hand rests against the right end of the instrument with the fingers pointing up so the first and second fingers can work the slide. The right thumb rests against the end of the side of the harmonica that is toward you.

You play the chromatic harmonica in exactly the same way as the plain harmonica, blowing and drawing in to form the different notes. The only new thing you will have to learn is how to operate the slide to produce sharps and flats. After you have practiced going up and down the scale, including all the lower hole notes, we would recommend that you start right in playing simple tunes slowly—either by ear as though you were whistling or from printed music.

Twelve Hole Chromatic Harmonica

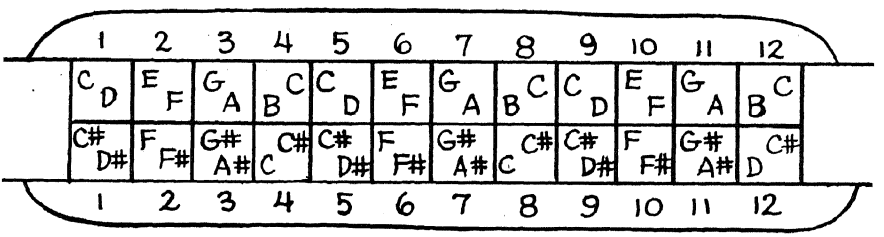


FIGURE 101

Chapter 20
THE FIFE

WHO IS there that hasn't thrilled to the piercing shrilling of the fifes as a fife and drum corps marches past in a parade playing "The Girl I Left Behind Me" or some other stirring march song? To many Americans the fife is as grand an instrument as are the bagpipes to a Scotsman.

Many Boy Scouts learn to play the fife and many other young people who are members of school and academy fife and drum corps master it after a little practice. The only hard thing about it is learning to blow into the mouth hole or embouchure to produce the tone. With only six holes, however, it is the easiest of the wood wind instruments to play and usually can be learned fairly well in a couple of weeks if you practice every day.

Making the Notes

Hold the fife with both hands in a nearly horizontal position and projecting out to your right. Cover the three holes nearest your mouth with the first three fingers of the left hand. Cover the other three holes with the first three fingers of the right hand. The right hand little finger rests on the fife beyond the last hole.

Now tighten your lips a little by using the muscles at the corners of your mouth and blow across the blow hole so the air strikes its inner wall. Instead of blowing straight down, you blow at an angle, so some of the air goes into the fife and some passes over the farther edge of the blow hole.

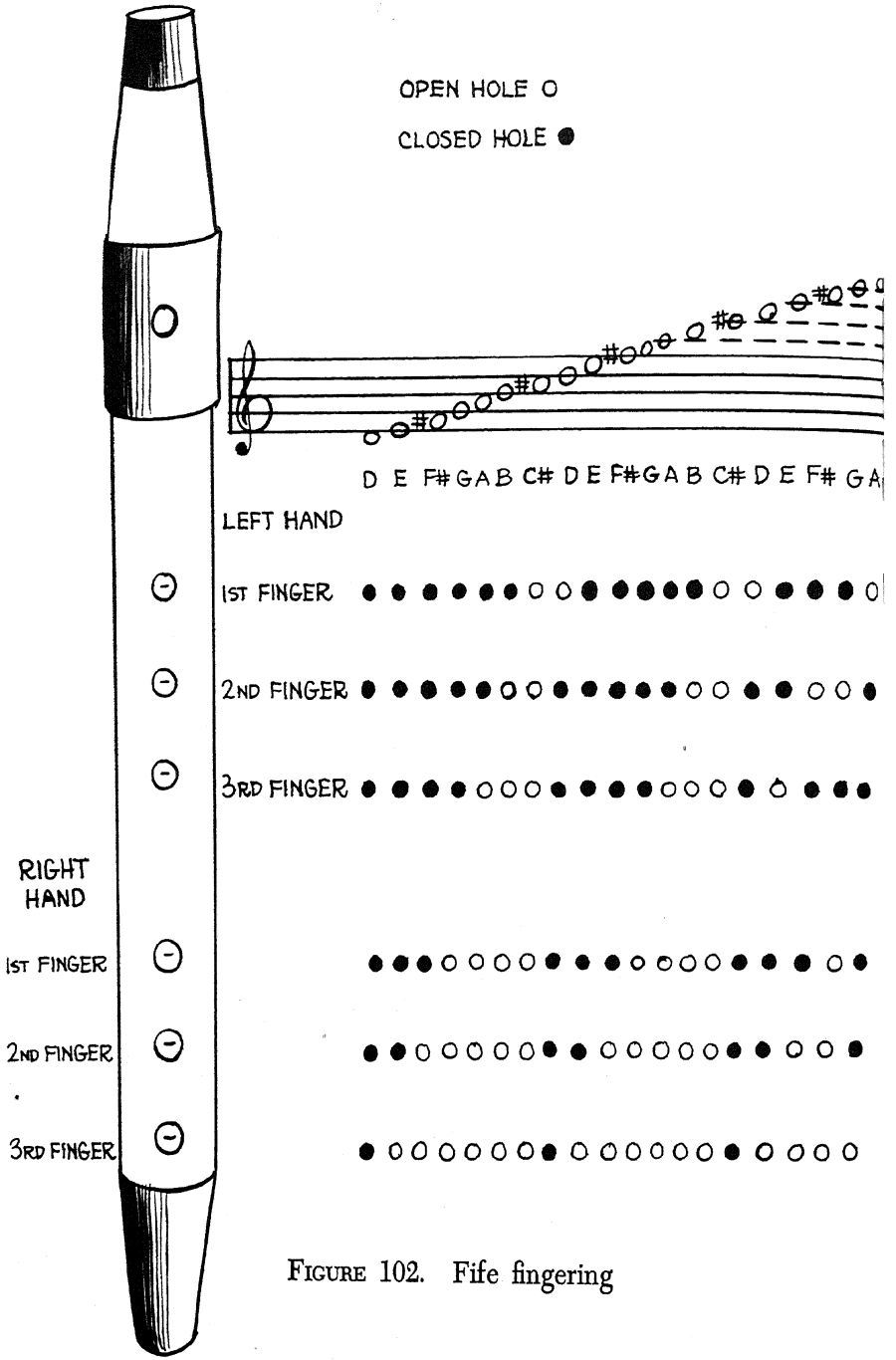


FIGURE 102. Fife fingering

Fig. 102 shows the range of the fife, from low D to high A, and shows where you put your fingers to make the notes. The fife plays only F# and C# (no other sharps or flats) and as a consequence its music is written in the three keys of C (no sharps or flats), G (1 sharp), and D (two sharps).

To make low D, all six fingers are down, covering the holes. To shift to E, the next note higher, you simply raise the right third finger. For each higher tone, you raise an additional finger until you get to C#, which is played all open holes with no fingers down.

D is played with the first finger of the left hand raised, but the notes up from D to the high C# are fingered the same as in the lower octave.

The four highest notes, E, F#, G and A, require a little different fingering. This is clearly shown in Fig. 102.

Playing the Fife

The best way to start playing the fife is to learn to play the notes up and down the scale. Go up as far as A just above the staff. Try the higher notes if you want to, but it is just as well to leave them alone for the first week or two. Play them later on when your lips get firmer and stronger.

Every day practice playing sustained notes, as this is the best way to improve your tone quality. Play G, for example, starting softly, making it gradually louder, and then tapering down to a soft ending.

After a few days of this get a music book containing a lot of well-known songs. Pick out melodies written in the keys of C, G (1 sharp) and D (2 sharps), and start to play them. Play slowly at first, disregarding keeping time, and trying to make each note come out clear and vibrant. Before long you should be able to pick up speed and play right along in correct time. The fife is really easy.

Chapter 21
THE BUGLE

WHETHER OR NOT you belong to a drum and bugle corps, you may want to learn to play a bugle. Many boys do, in particular, because they know some of the Army bugle calls and would like to be able to play them. Other boys want to learn in connection with their Boy Scout activities, and grown-up people sometimes take to the bugle just because they like its sonorous, throaty tones and like to experiment with it.

While the bugle is chiefly known as the instrument on which bugle calls are played, there are a number of stirring marches that can be played with the five principal notes that the bugle produces. Books containing bugle music can be obtained, of course, at any good music store.

The Bugle's Notes

The five notes or tones used in bugle calls and in most of the music written for the bugle are middle C, E, G, C, E and G. These are shown in Fig. 103, together with high B flat and high C, which are marked with an X. These notes can be played, but are hardly ever used.

Learn the first six notes and you will know all you really need to.

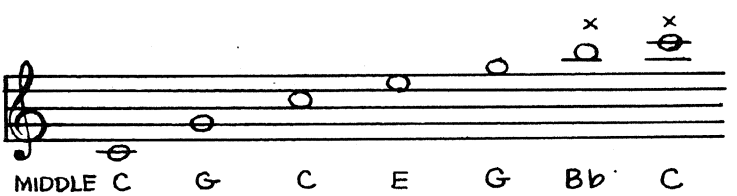


FIGURE 103

How to Blow the Bugle

The bugle is held by the right hand as shown in Fig. 104. It should be held straight out in front of you or in a horizontal position. Don't slant it up or down.

When you are going to sound a note put the mouthpiece against your lips, at the center of your mouth. Start by putting one-half of the mouthpiece against your upper lip and one-half against your lower lip. This is the best position for many players, but it may or may not suit you. If it doesn't seem right, move the mouthpiece either up or down a little until you find the position that feels best to you.

You don't have to do this the first day. As you get used to

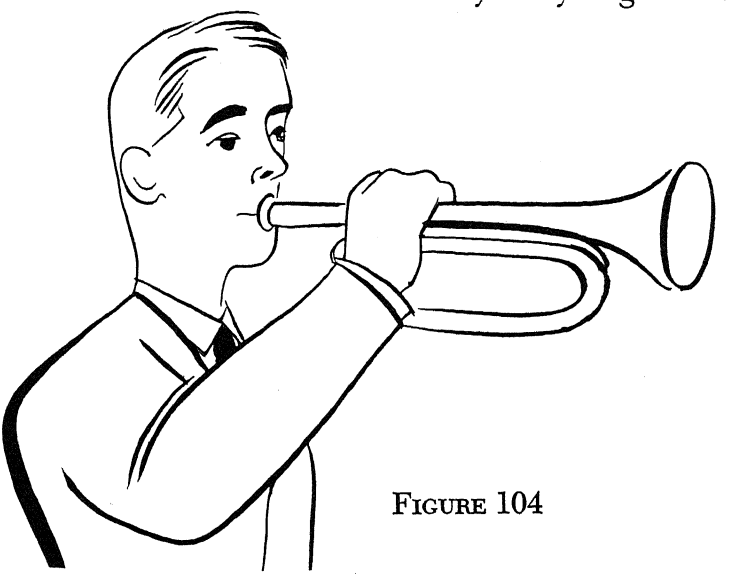


FIGURE 104

playing, you will find the best position without any trouble.

Put your lips lightly together and draw back the corners of your mouth. This will tighten your lips and put them in position to vibrate against the mouthpiece. Hold your cheeks in. You should never puff out your cheeks while blowing.

With the mouthpiece held against your lips, take a deep breath of air, drawing the air in through the corners of your mouth.

Now, to sound off!

Put your tongue at the roof of your mouth, in front, and pronounce the word "tu." At the same time let your tongue drop down to let the air be expelled into the mouthpiece. Never let any air escape through the corners of the mouth. Don't blow too hard. Try it quite gently and only blow harder if you find it necessary. Too many buglers blow too hard. It is not necessary and it is hard on your lips.

This tongue and breath action is called the "attack." You should follow it with an even flow of air (on sustained notes) to produce a clear even tone.

That is how the bugle is blown, described to the best of our ability. It is easy for some people; harder for others. With practice and the strengthening of the lips it becomes perfectly simple for anybody.

Playing the Notes

Start with the note G on the second line of the staff. This is the easiest one for most beginners to play. If you have a piano handy, sound G on it and then try to reproduce its tone. If you don't have a piano, you will have to learn by experiment and experience.

The pitch (highness or lowness) of the notes is governed largely by the degree to which you contract or relax your lips. To produce the higher notes, you contract your lips more. This is done by drawing back the corners of the lips as though you were going to smile. When you do this, you reduce the thickness of the lips at the mouthpiece.

Do not use great blasts of breath to produce the high notes. They can easily be produced with normal breath if you contract your lips the right way and breathe in deeply so you can control the tone from your diaphragm, rather than your mouth or throat.

Practice on G until you have made a little progress toward

hitting it and holding it while you count 1-2-3-4. Then go to C in the third space in the staff. Contract your lips a little to play C. Then contract your lips a little more and try the E, and finally the high G.

When you have learned to play these four notes, you should have little difficulty with the low E and middle C. For these notes as well as the others, however, you need lip strength and breath control from the diaphragm, and it takes a little practice to develop these two qualities.

The Slur

In some bugle music you will find a curved line connecting two or more notes of different pitch. This is called a slur, and it is illustrated in Fig. 105, which is the music of Reveille, the best known of all the bugle calls.

When you come to a slur, you tongue or "attack" only the first note. You blow the second note by changing the contraction of your lips, without making a second "attack." Practicing slurs is a first-rate way to strengthen your lips and gain tone control.

Reveille

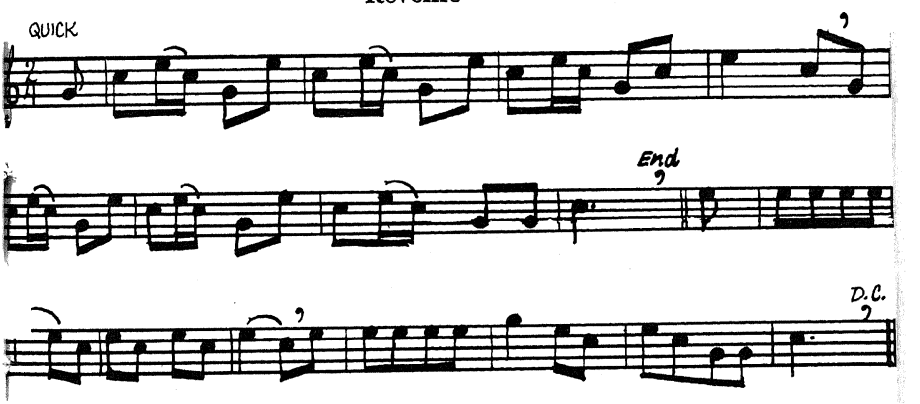


FIGURE 105

Triple Tonguing

Triple tonguing is used when you play triplets. These are groups of three notes joined together by a heavy line with the number 3 over it in printed music. They are played in the time it would ordinarily take to play two of the same kind of notes (usually quarter notes). You can see several triplets in the Mess Call (Soupie, Soupie, Soupie, And Not A Single Bean) in Fig. 106.

Mess Call

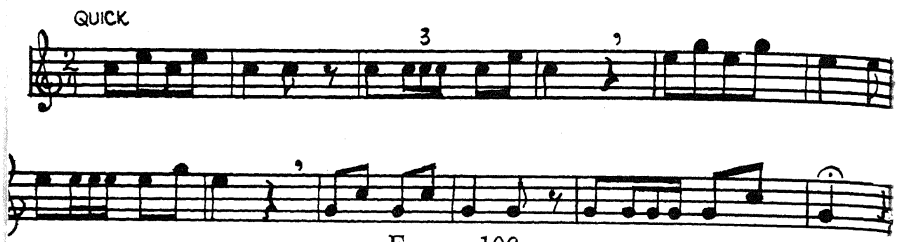


FIGURE 106

In playing a triplet with triple tonguing, you make three rapid attacks by pronouncing the syllables "tu, tu, ku." What you do is to pronounce the "tu, tu" as already described starting with the tongue at the roof of the mouth and dropping it down. When you come to the "ku" (which you usually do very rapidly), you keep your tongue down. You will find you have to do this in any event, since your tongue automatically goes against your lower teeth when you pronounce "k".

Practice triple tonguing slowly at first and speed up after you begin to get the hang of it.

Bugle Calls and Music

You can get inexpensive books at almost any music store that contain the music of all the principal bugle calls and also quick-stepping marches to play on the bugle. If you have no other source of music such as a school or Boy Scout Bugle Corps, be sure to get one or more books. The variety of bugle music they contain may surprise you.

Chapter 22
THE OCARINA or SWEET POTATO

WE ARE including the ocarina in this book both for the sake of completeness and because we had one when we were young and never learned how to play it as we had no way of finding out how to make the notes. It is also included because a friend of ours recently had to learn how to play one in a week's time in order to take part in a radio show, and she was finally obliged to figure it out by herself the best she could.

In the hands of a good player, the ocarina is really a wonderful little instrument. It has a clear flute-like tone and when you get good at it you can do quite a few specialties such as carrying the melody in a dance orchestra, playing duets and trios with friends, and—a favorite with one of our friends who knows the birds—you can imitate the cuckoo, the mockingbird and every imaginable other kind of bird.

You produce a tone on the ocarina by blowing gently into the mouthpiece, increasing the force of your breath as you go to the higher notes. The only thing to watch is to blow with the right degree of force or gentleness for the note you want to make. This comes with a little practice. If you don't blow just so, you will get a different note from the one you want, even though your fingering is correct.

Some players just blow steadily, others "tongue" each note

by silently pronouncing the letter "T" into the mouthpiece. Tonguing helps to make each note sharp and distinct, especially when you are playing rapidly.

How to Make the Notes

The notes produced by the ocarina are made by covering and uncovering its holes with your fingers and thumbs. Fig. 107 shows the top and bottom of an ocarina, and shows the holes on which you put your fingers and thumbs.

When playing, you hold the ocarina with both hands, with the left palm toward you and the right palm turned toward the instrument. The pointed end of the ocarina should be on your right. In this position, your fingers and thumbs will fit easily over the holes in the positions shown in Fig. 107.

Fig. 108 shows how to make all the natural notes—the ones that are not sharps or flats. The numbers indicate the holes A black dot means that the hole is closed, and a white dot means an open hole—made by raising a finger or thumb.

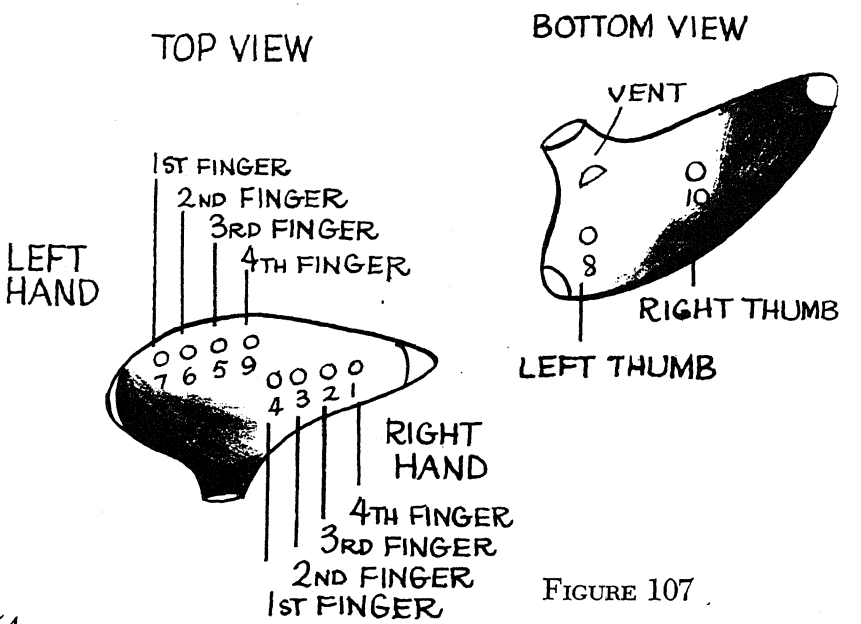
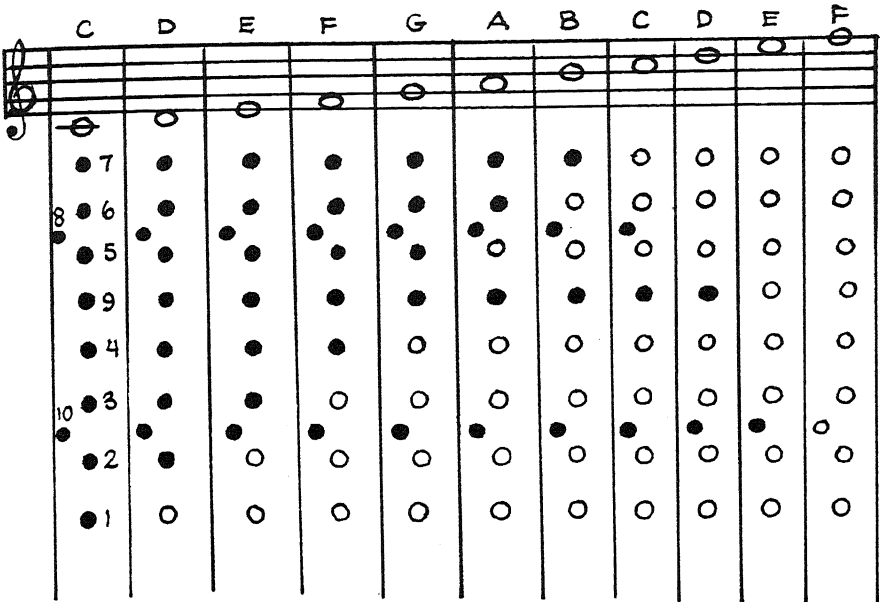


FIGURE 107

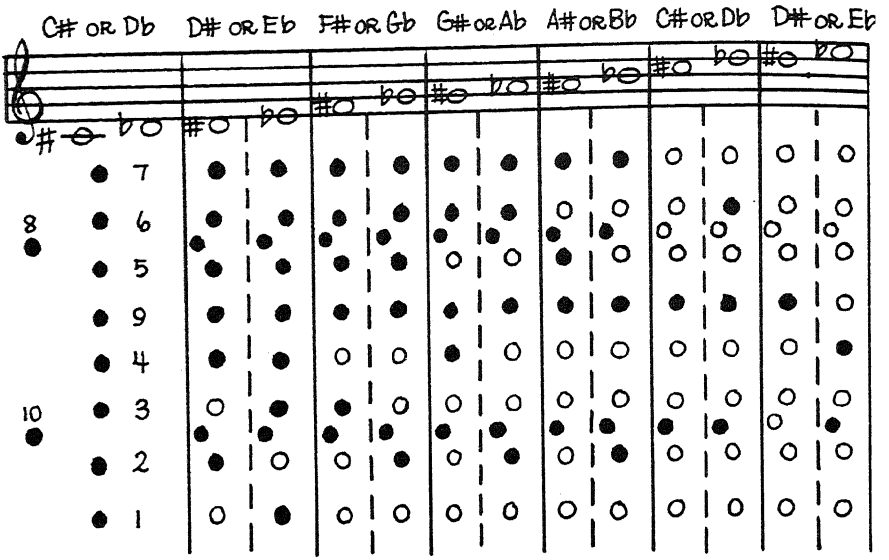


Ocarina fingering

FIGURE 108.

It may be easier for some people to learn the notes from the following list, which tells which holes to uncover when making each note:

C—All holes covered.
D—Uncover hole 1
E—Uncover 1 and 2
F—Uncover 1, 2, and 3
G—Uncover 1, 2, 3, and 4
A—Uncover 1, 2, 3, 4, and 5
B—Uncover 1, 2, 3, 4, 5, and 6
C—Uncover 1, 2, 3, 4, 5, 6, and 7
D—Uncover 1, 2, 3, 4, 5, 6, 7, and 8
E—Uncover 1, 2, 3, 4, 5, 6, 7, 8, and 9
F—all holes uncovered.



Ocarina fingering

FIGURE 109.

Now for the sharps and flats. Some people we have known didn't know that you could make these notes, which correspond to the black keys on a piano, on the ocarina. Fig. 109 shows the fingering.

Notice that there is an alternate fingering for each of these notes, except low C# or D flat. You can make this tone fairly well, if you need it, by blowing C with a little more force. Some people like one fingering, and some the other, and some ocarinas give a truer tone with one than with the other.

Don't make the mistake of thinking that there is a different fingering for D# than for E flat, and so on for each of the other columns. The two notes shown in each column are identical in tone. On the piano, for example, the same black key plays each note—D# and E flat, F# and G flat, and so on.

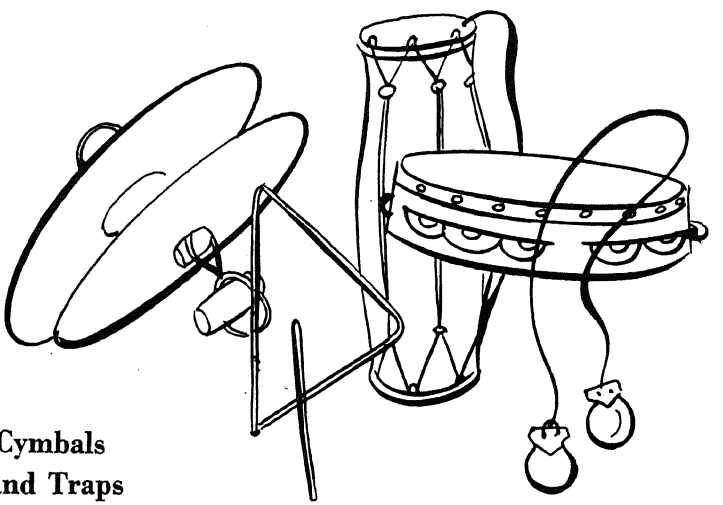
For the sake of absolute clarity, the fingerings shown in Fig. 109 are written out below.

D# or E flat—Uncover 1 and 3, or
—Uncover 2
F# or G flat—Uncover 1, 2 and 4, or
—Uncover 1, 3 and 4
G# or A flat—Uncover 1, 2, 3 and 5, or
—Uncover 1, 3, 4 and 5
A# or B flat—Uncover 1, 2, 3, 4 and 6, or
—Uncover 1, 3, 4, 5 and 6
C# or D flat—Uncover 1, 2, 3, 4, 5, 6, 7 and 8, or
—Uncover 1, 2, 3, 4, 5, 7 and 8
D# or E flat—Uncover 1, 2, 3, 4, 5, 6, 7, 8 and 10, or
—Uncover 1, 2, 3, 5, 6, 7, 8 and 9

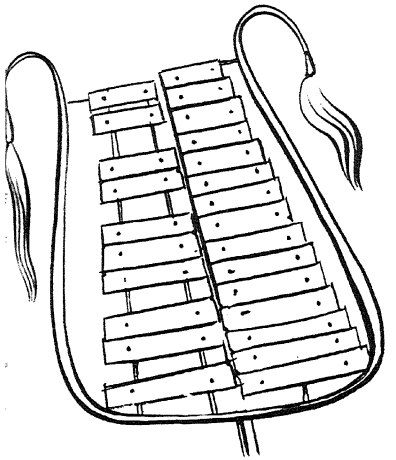
Playing the Ocarina

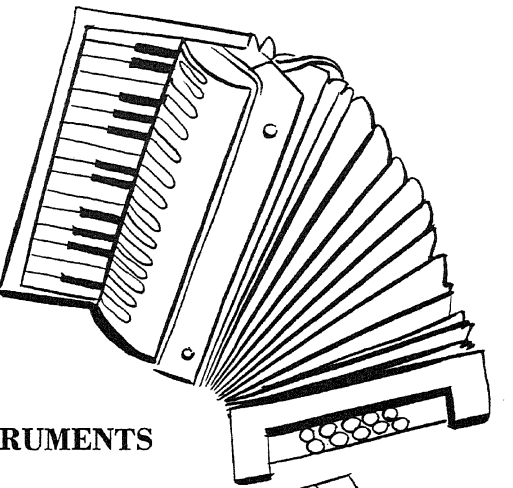
There are no special tricks to playing the ocarina. Just learn how to make the notes, and then start in playing whatever tunes you like that are written the instrument's range.

Try "America" in the key of G (1 sharp), making the first note G. Do "My Old Kentucky Home" in the same key, making the first three notes, "The Sun Shines", B, dropping to G for the word "Bright". Any book of songs will give you dozens of other well-known tunes you should be able to play without difficulty.

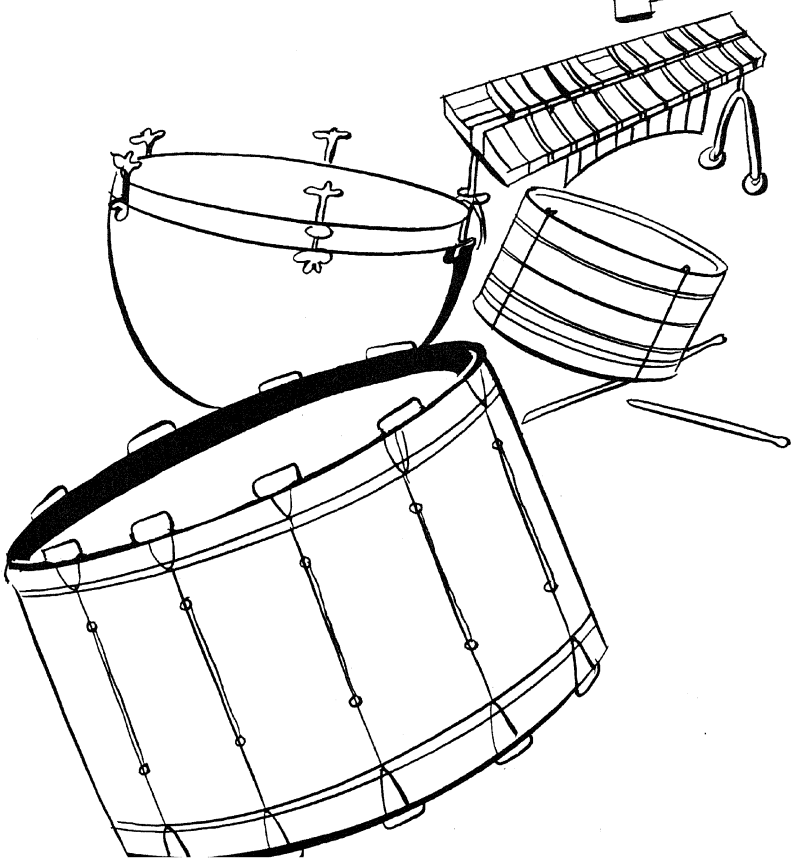


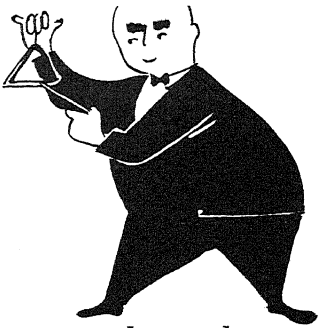
Cymbals and Traps





THE PERCUSSION INSTRUMENTS





Chapter 23
DRUMS AND TRAPS

THE DRUM that most people want to learn to play is the snare drum, and this section is concerned almost entirely with it. Many snare drummers who play with orchestras also have to play various other noise-making contraptions called traps, so a word or two is said about them also.

The Bass Drum

Ability to keep exact time is one of the greatest assets of the good bass drummer. His instrument is so loud and important in a band or orchestra that he must be letter-perfect in keeping the beat. He is helped in this, of course, by the band or orchestra leader, whose function is to keep everybody right on the dot. A good drummer should learn his music so well that he can keep his eyes constantly on the director.

Producing a good tone of the proper volume (loudness or softness) is also highly important. The tone is governed to some extent by the type of beater used. When playing in parades a felt beater is generally used, but for concerts the beater is made of soft lamb's wool.

You do not bang the bass drum squarely in the middle, bringing the beater against it at a right angle, as is commonly supposed. Instead, you strike the drum with a glancing up and down stroke, hitting it about half-way between the center and the upper hoop. This secret of bass drum playing, which has much to do with good tone, is not widely known outside of the drum-playing fraternity. (Fig. 110.)

Loudness and softness are controlled chiefly by the force with which you strike. A good drummer always is keenly aware of the volume of the other instruments and keeps his own volume in harmony with theirs.

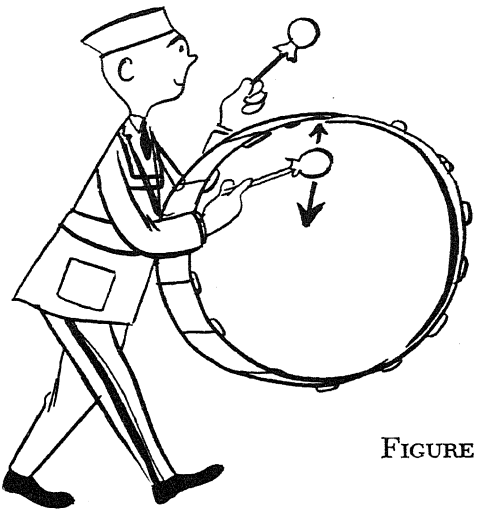


FIGURE 110

One other trick in connection with playing the bass drum is learning how to "dampen" or stop its tone. It often happens that you come to a place in the music—or to the end of a piece—when all the instruments stop playing. Then you must dampen the bass drum's tone by putting your free hand against its side. This stops the vibrations and quickly quiets it down.

The Snare Drum

Playing the snare drum well is quite an art, but it is learned quite easily if you proceed step by step, practicing the different strokes in order from the flam up to the roll and the paradiddle. Almost everybody is familiar with many of the basic drum strokes or rhythms, from having heard them played by brass bands and dance bands. You will learn the names of these strokes in this section, as well as how to play them.

How to Hold the Drum Sticks

Fig. 111 shows how the drum sticks are held.

Left Hand. Hold your hand palm up and grasp the stick about an inch from its thick end, holding it between the ball of the thumb and the first and second fingers. Put the third

finger beneath the stick, so the stick is held loosely between the second and third fingers.

Right Hand. Hold your hand palm down and hold the stick lightly at its thicker end, between the thumb and the first and second fingers.

When playing, both sticks should point diagonally inward toward your body. This is an important point.

The Basic Drum Strokes

In addition to the single stroke, which is made by striking the drum alternately with the left and right-hand sticks, there are twelve basic drum strokes. These are shown in Fig. 112. Below, we give you directions about how to play them.

The Flam. The flam is the familiar ra-TAT, ra-TAT, ra-TAT that every one has heard played on the drum. It is written in music as a grace note (the small note) followed by a quarter note or a note of longer duration. The grace note is played quickly and not too loud with one hand, and the following note is played—more loudly—by the other hand.

Start the flam with the left hand. This is indicated by the small L over the first grace note. Then play the following note

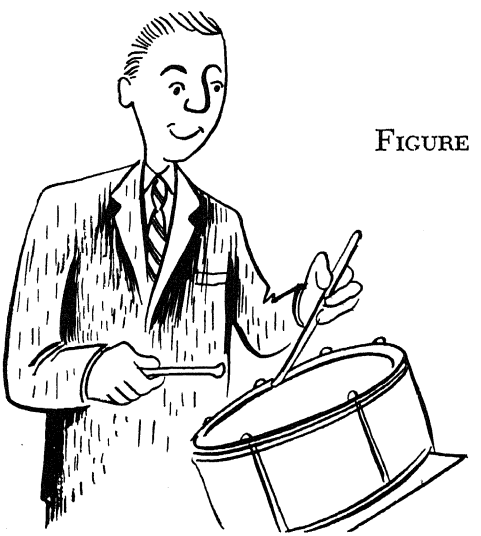
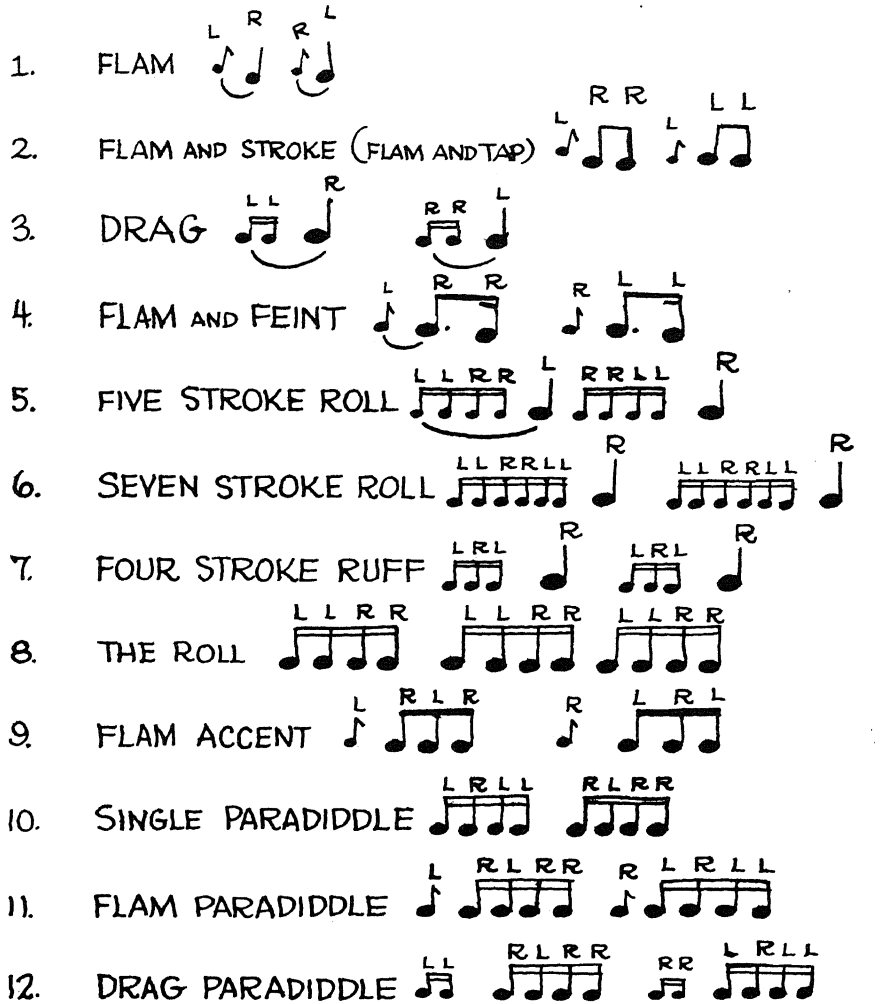


FIGURE 111

—the TAT—with your right hand. Then reverse the sticking. Play the grace note of the second flam with your right hand and the TAT with your left hand. Reverse the sticking after each flam.

Always hold the stick that is to make the grace note low, close to the drum head. Hold the other stick high, so it can hit harder.



Drum strokes
FIGURE 112.

The Flam and Stroke. This is simply a flam with another note added—two TAT's instead of one. It goes ra-TAT-TAT, ra-TAT-TAT, ra-TAT-TAT.

Start it with the left hand, striking the grace note. Then strike the two TAT's with your right hand. Then reverse the sticking. Strike the grace note with your right hand and the TAT's with your left hand. Then the left hand does the grace note again, and so on. Reverse the sticking each time.

The Drag. The drag sounds like ra-ta-TAT, ra-ta-TAT. It consists of two grace notes, both struck by one hand, and a longer and louder note struck with the other hand The sticking is reversed each time you play it.

The Flam and Feint. This consists of a grace note followed by a dotted quarter note and an eighth note. The dot after the quarter note makes it equal in duration to three eighth notes. It increases its duration by one-half. Put another way, a dot is equal to one-half the value of the note after which it is placed. (See Chap. 2).

This is hard to illustrate by rats and tats, but the Flam and Feint sounds like ra-TA-AT-TAT, ra-TA-AT-TAT. There is a slight pause after the first TAT. Then the AT comes in quickly, and the TAT follows it at once. Reverse the sticking each time.

Five Stroke Roll. This sounds like rat-a-tat-a-TAT, rat-a-tat-a-TAT. Notice the sticking carefully. It goes left, left, right, right, left. Then right, right, left, left, right. Then start with the left hand again, and alternate each time.

Seven Stroke Roll. This consists of seven rapid, evenly-played strokes. Practice it slowly at first, counting 1-2-3-4-5-6 TAT. Increase the speed as you get used to the sticking. It sounds like rat-a-tat-a-tat-a-TAT.

The seven stroke roll is always started with the left hand and ended by the right hand.

Four Stroke Ruff. This also always begins with the left hand and ends with the right hand. You have heard it played many times. It goes rat-a-ta-TAT, rat-a-ta-TAT.

The Roll. Now we come to the most important and the hardest of all the snare drum effects. It takes everybody considerable time to perfect a really good roll—a succession of rapid even strokes so close together that it sounds almost like the purr—or roar—of a motor.

The roll always starts with the left hand, and is made with alternate double strokes of each hand.

One secret of making the roll is this—let the second tap of each hand be a bounce, instead of raising the hand and making a second stroke. This makes for both smoothness and speed. Another secret is always to raise your idle hand high so that when you bring it down the stick will bounce almost of its own accord to make the second tap.

Do not try to play a fast roll all at once. Start slowly and increase the speed gradually. Most drum instructors have their pupils start their daily practice by practicing the roll for five or ten minutes, and this is a good idea for everyone to follow.

Flam Accent. This is a stroke that alternates from hand to hand—left, right, left, right; then right, left, right, left, and so on, starting with a different hand each time. It sounds like a rapid ra-TAT-TAT-TAT, ra-TAT-TAT-TAT.

Single Paradiddle. There are three paradiddles, the basis of each being four rapid, even notes. Notice the sticking carefully, as it is a little tricky until you get onto it. The single paradiddle sounds like rat-tat-tat-tat, rat-tat-tat-tat.

Flam Paradiddle. Like the flam itself, the flam paradiddle is preceded by a grace note. It sounds like a rapid ra-tat-tat-tat-tat.

Drag Paradiddle. This paradiddle is preceded by two grace notes and sounds like ra-ra-tat-tat-tat-tat.

When you have mastered all these strokes you will be a snare drum player. They are good fun for most people to practice. The main thing is to get sharpness, smoothness and speed.

The Kettledrum

The kettledrum, also called the tympani, is the only kind of drum that has a definite musical pitch. It consists of a rounded bowl of copper, brass or silver, over which a piece of vellum or vellour is stretched tightly by means of tuning handles that work in a metal ring surrounding the drum head. The vellum head may be slackened or tightened to produce any one of the notes within the instrument's range.

The normal range of the kettledrum is one octave, from F below the staff in the bass clef to F on the fourth line of the bass staff. In some instances, however, as in Wagner's "Parsifal," low E is used, and in a few unusual cases higher notes are used. It is possible, as a matter of fact, to force a 25-inch kettledrum up as high as A, and a 28-inch one can be tuned down as low as E flat.

Each kettledrum gives but one note at a time, so two or three, each tuned to a different note, are used in an orchestra or band. When there are two drums, they are generally tuned to the tonic and the dominant or the tonic and the subdominant of the key, in which the music being played is written.

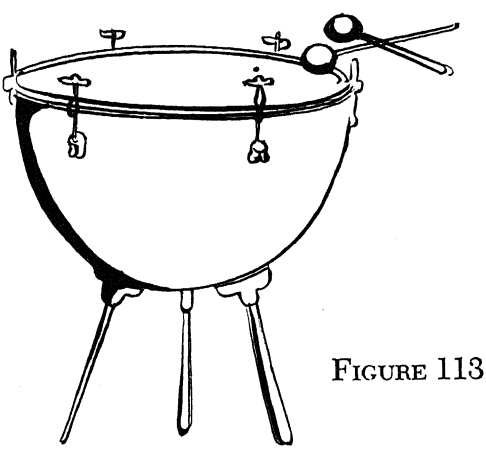


FIGURE 113

The Cymbals

Many bass drums have a cymbal attached to their tops. The bass drummer holds the other cymbal in his left hand and goes to town with it while he pounds the drum with his right hand. Some band leaders, however, prefer to have the drummer concentrate on his drum and have another person play the cymbals.

When playing cymbals they should not be struck directly together. This deadens the vibrations. Play a tone almost as though there were a grace note in front of it, like a snare drum flam, and strike the cymbal that is to vibrate and make the tone (usually the one in the left hand) a glancing upward blow with the other cymbal. To keep the tone of the vibrating cymbal resounding, shake it gently. To stop the vibrations quickly, touch the cymbals against your coat.

When used as a trap, a cymbal is struck a glancing blow near the rim with a drum stick. A hard or soft headed stick is used, depending on the volume or effect you want to get.

Tom-Tom, Tambourine and Triangle

The tom-tom is played with either one or two drum sticks and is struck, as a rule, with rhythmic single strokes in time with the music.

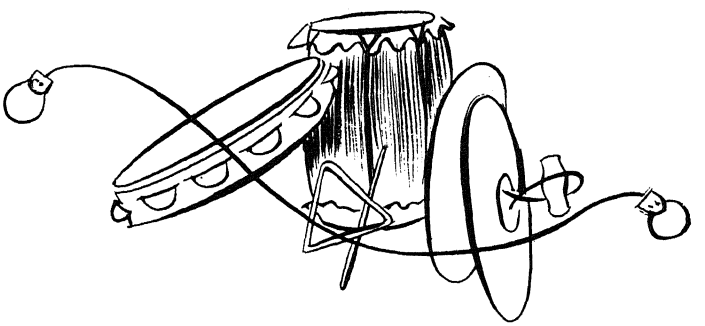
The tambourine is played in three different ways in modern dance orchestras:

1. It is held with one hand, while the first two fingers of the other hand tap lightly along the rim.
2. It is held with one hand and the moistened thumb of the other hand is rubbed along the head (skin surface) about one inch from the outside hoop.
3. It is held in one hand and shaken rapidly. This sets the jingles going and makes the roll.

The castanets of today are fitted with a wooden handle, which makes them much easier to play than the old-style Spanish castanets. The modern kind is played in two ways. They can be held with one hand and struck against the other hand

or the calf of the leg, or they can be held in the right hand and shaken back and forth to make the roll. When played the second way, the right wrist should be held rigid.

The triangle is struck with a metal beater about the size of a pencil and gives a clean, bell-like tone. Sometimes a single note is struck; sometimes a sustained roll. You play the roll by holding the beater loosely at one of the lower corners and then shaking it quickly to and fro against the two sides.



Traps

Chapter 24

THE GLOCKENSPIEL or BELL LYRE

THE BRILLIANT, vibrant singing bell-tone of the glockenspiel has become a prominent feature of countless bands in recent years, accenting their melodies and adding a totally new tone quality to the traditional brass and wood wind instruments.

It does not require very much knowledge of music to play the glockenspiel. What you do need is accurate coordination of hand and eye, so you will be sure to hit the right notes, for the tone of the instrument carries far and wide.

The glockenspiel has twenty-five tone bars. These are shown in Fig. 114, together with the corresponding written notes.

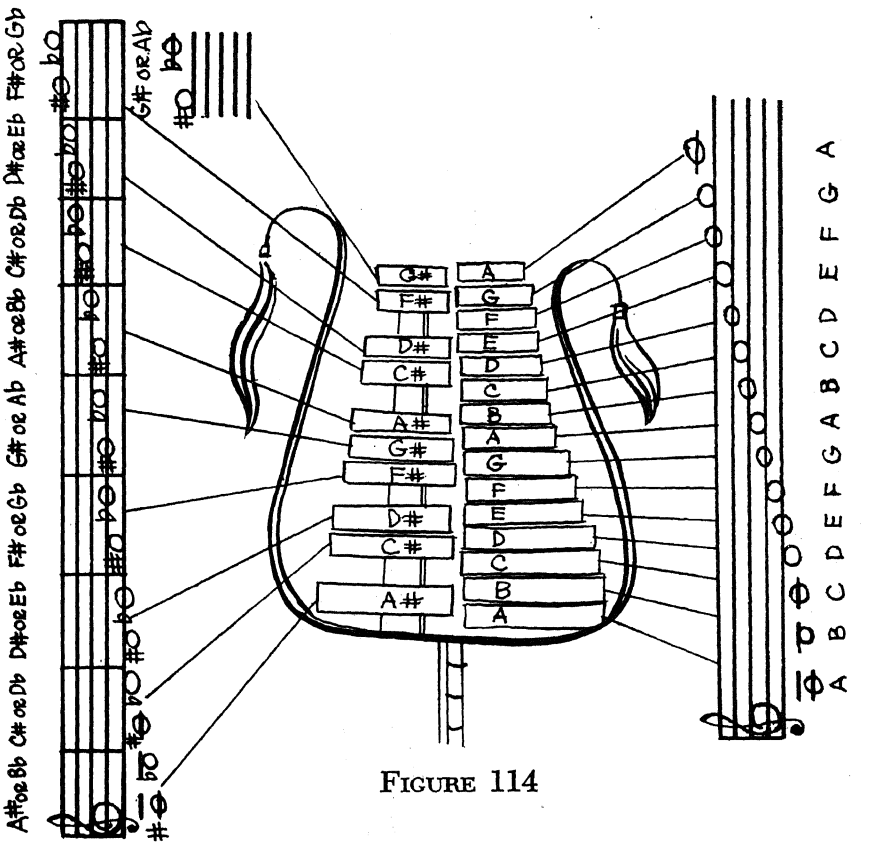


FIGURE 114

The row of sharped notes on its left side make it possible to play music written in all the principal keys. When you play in a sharp key such as G (1 sharp), D (2 sharps) and so on, you play the left-hand notes as sharps. For flat keys you play them as flats. A# is played for Bb, D# for Eb, G# for Ab, and so on.

Playing the Glockenspiel

The most usual form of glockenspiel is mounted on a single holster. This fits over the shoulders and around the body and must be supported near its base stem with the left hand. The right hand does the playing, striking the notes with a small mallet, which may have a wooden or glass head.

Some glockenspiels are made with a double harness. This leaves both hands free, and they play with two mallets.

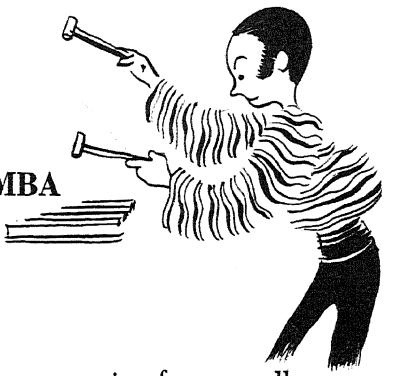
You should hold the mallet stick near its end and, when playing, have the palm of your hand facing the glockenspiel. Strike from the forearm, rather than the wrist, as this makes a better tone, and try always to hit the centers of the tone bars. Draw the mallet head back quickly the instant you make a note. If you leave the mallet head on the tone bar, it will deaden the tone. As you do this, shift your glance to the next tone bar to be struck and put the mallet in position near it, ready to make the next note.

The important thing is quick, confident action—light but brisk striking of the bars to get a clear, vibrant tone.

You can control the loudness or softness of the tone to some extent by loosening or tightening the screws that hold the tone bars. If you loosen the screws the bars can vibrate more freely and will produce a louder tone. For soft playing, you can tighten the screws a little to reduce the vibrations. You should make sure that all the bars are adjusted to the same tone volume before you start to play in public.

Music written for the piano, violin or voice can be played on the glockenspiel and once you learn the notes you can begin to pick out tunes and melodies of all kinds.

Chapter 25
THE XYLOPHONE AND MARIMBA



XYLOPHONES are made in a number of sizes, ranging from small ones with twelve or fifteen tone bars up to big orchestra-size instruments with a range of three to four octaves. Marimbas are almost all of large size, and have a deeper, mellower tone than the xylophone. They are wonderful solo instruments and also blend beautifully with other orchestra instruments to give a richer tone to the ensemble.

Both instruments are usually played by striking the tone bars with two mallets, one held in each hand. It is very important to hold the mallets correctly in order to have all the freedom and flexibility needed when playing. Hold each mallet between the tip of the thumb and the first joint of the first finger. All the control is exerted by the thumb and first finger only. The other fingers are closed over the handle of the mallet, with the tips almost touching the palm. They should not be tightly closed, but just enough to give the support needed to keep the mallet in position.

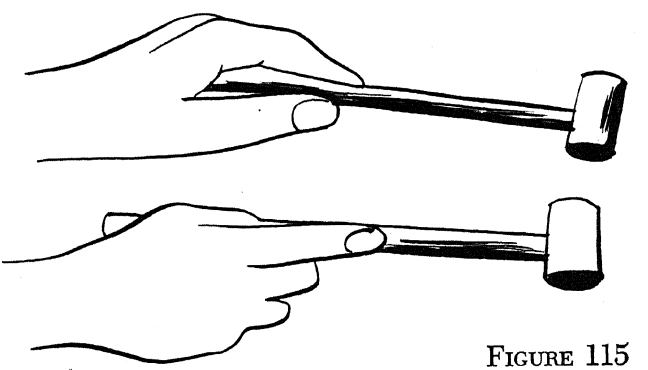


FIGURE 115

When playing, the hands are held level, with the fingers turned well under. Hold the hands low, quite close to the tone bars, and use the wrist when you strike a note. Don't grip the mallets too tight. A secret of good playing is to keep your grip gentle and to have the muscles of your hands and arms relaxed.

Stand about half a foot from the keyboard and start your practice by playing up and down the scale, using both hands,

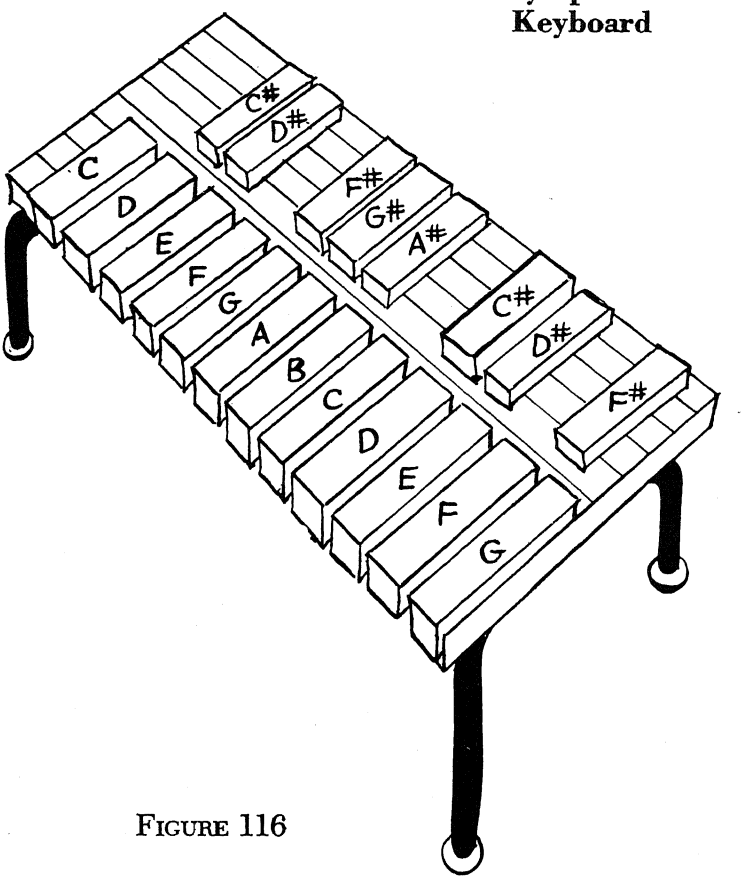


FIGURE 116

the left hand for the low notes and the right hand for the high notes. Use your hands and wrists when striking the notes. The arms should hardly move at all. Watch carefully to see that you do not lift the mallets too high above the keyboard. This is unnecessary and will slow you up when you begin to get good and play fast pieces.

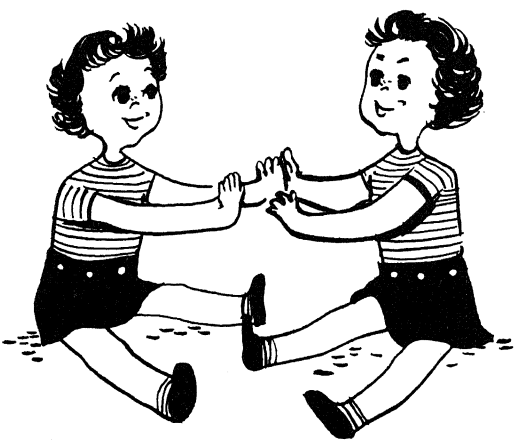
After playing the scales and possibly some simple melodies, start in to practice the roll. This consists of a series of alternating single strokes on one tone bar, using both mallets. First strike the bar with the right-hand mallet, then with the left, and then continue right, left, right, left, and so on. You use the roll whenever a single note is to be maintained or kept sounding for a moment or two or longer. This is usually when you play half notes or whole notes.

The roll is a very important part of xylophone or marimba playing, and should be practiced for ten or fifteen minutes every day. The great thing is to work to get a smooth, even roll, and the best way to do this is to practice slowly at first. Increase your speed as you are able to, but if the roll becomes uneven or ragged, stop at once and start over again. Never use

your arms when executing a roll. Use your wrists, hands and fingers, and be sure to keep your muscles free of tension.

When executing the roll on tone bars to the left of your body, put the right-hand mallet in front of the left-hand one. On bars to the right of your body, you put the left-hand mallet in front of the right-hand one.

If you can read simple music, you can start to play popular and other music on the xylophone or marimba after a few days of practicing. The notes are right there in front of you and all you have to do is to strike them to bring forth their deep, resonant tones. The most important things to watch are the positions of your hands—keep them low, and the tenseness of your muscles. Most beginners get too tensed up, and you must constantly correct this if you find that you are doing it. The other important thing to practice is the roll. This simply must be practiced every day on a number of different tone bars until you have mastered it. You will then have your instrument under control and can make it produce its very best.



Chapter 26
THE PIANO ACCORDION

THE PIANO ACCORDION, as everybody knows, now ranks as one of the most popular of all our present-day instruments. It is a marvelous solo instrument, for it plays both the melody and the accompaniment and has such a breadth of harmony that it is almost an entire orchestra in itself. It blends beautifully with other instruments that it accompanies, and is a favorite for accompanying singing.

The accordion is supported by straps that go over your shoulders, and the left strap should be shorter than the right so the instrument will rest against your left shoulder. The black keys on the keyboard should be directly beneath your chin.

As you play, you pull and push the bellows out and in with your left hand, taking care to have a smooth, easy motion. The idea is to pull the bellows open from the top, so they are in the position shown in Fig. 117. Don't try to pull the bellows out as far as they will go. That is neither good nor necessary. The rule is to use as little of the bellows as possible.

Piano accordions are made with from 12 to 120 or more basses, the usual in-between sizes having 24, 48, 60, 80 and 96 basses. These numbers refer to the number of buttons on the bass section of the accordion, which is played by the left hand. It is usually recommended that a person start with an instrument having at least 24 bass buttons. The descriptions in this section, however, are for a 12 bass accordion. Using the smaller number of buttons makes it easier for beginners to understand, and the principles outlined here can easily be applied to a 24 bass or larger instrument.

The Right Hand

The right hand plays a keyboard arranged exactly like a piano keyboard, and we will start by telling how this is used to play the melody.

Fig. 117 shows a 12 bass accordion, which has fifteen white keys on the piano keyboard, together with the usual black keys on which you play the sharps and flats. It is drawn as though you were looking directly toward the person playing it. When you are playing, the keyboard is on your right side and your right thumb and fingers rest on it naturally and easily.

Accordion music that you may get to practice with will be numbered to show the fingering, and the quickest way to get used to the fingering is to play melodies that have the finger numbers printed above the notes. There is no set rule, except that you should use fingers next to each other, as a rule, to play notes that are next to each other. Most people soon develop the fingering that is natural and easiest for them without any great difficulty—just as a result of playing.

Your first exercise, which will teach you some of the principles of fingering, should be to play the scale of C. Play the top note on the keyboard, C, with your thumb; the next note, D, with your first finger, and E with your second finger. Then shift your thumb to F, and use the first, second and third fingers on G, A and B. Then you shift your thumb again, this time to the middle C, and continue as before. You always play C and F with your thumb when playing up or down the scale of C.

Coming down the scale, put your little finger on the C at the bottom of the keyboard. Play B with your third finger, A with your second finger, G with your first finger, and F with your thumb. Then shift the second finger to E, play D with your first finger, and land on middle C with your thumb. Play B with your third finger, and keep going on down the same way, using your thumb when you come to F.

After practicing the scale a few times, put your thumb on

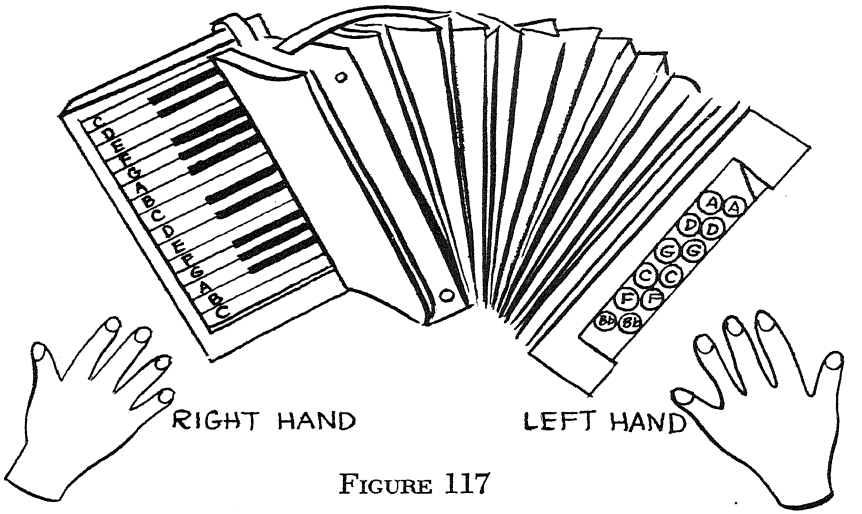


FIGURE 117

the top C, draw the bellows out while you count four, and then push them in while you count four, repeating this a number of times. This is to give you practice in handling the bellows and maintaining an even tone.

Next play C and D, counting eight and playing a note on each count, while you pull the bellows out. Do the same thing while pushing the bellows in.

These exercises will get you started with your right hand. A few days of practice and you will get the idea. As soon as you feel you are ready to, start to play simple melodies.

The Left Hand

The basses or bass buttons are played with the four fingers of the left hand, the thumb not being used.

The wonderful part about the accordion bass is that you can play a full three-note chord just by pressing down one button. Here is the way it works.

Use Fig. 118 as a guide. It shows the buttons on a 12-bass accordion, as you look at the instrument from in front. The left-hand row is called the fundamental row and when you press one of its buttons you get a single deep note. But when you press a button in the major chord row, you get a three-tone chord.

The button called the C fundamental is the one with a double ring around it. On an accordion, it usually has a dented or raised surface so you can find it easily with your finger. Press it down with your left second finger to get low C. Release it and press down the C in the major chord row with your first finger and you will get the major chord of C.

When playing the bass accompaniment to simple songs written in the key of C, you usually play C followed by the C major chord, then G followed by the G major chord, which you make by pressing the G button in the major chord row. You may also use fundamental F and the F major chord, and fundamental D and the D major chord.

The opening measures of "My Bonnie" (Fig. 119) show how these bass chords are used to fit in and harmonize with the melody. The first low note in the bass clef in each measure is the fundamental note; the next two are the corresponding chord.

These measures can also give you an idea of how to use the bellows. You draw the bellows out, for example, while playing "My bonnie lies over the ocean," which is a musical phrase. Then you push the bellows in while you play "My bonnie lies

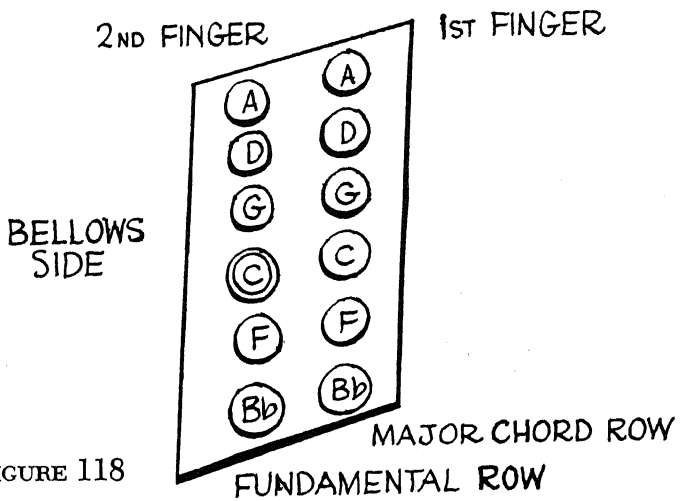


FIGURE 118

My Bonnie

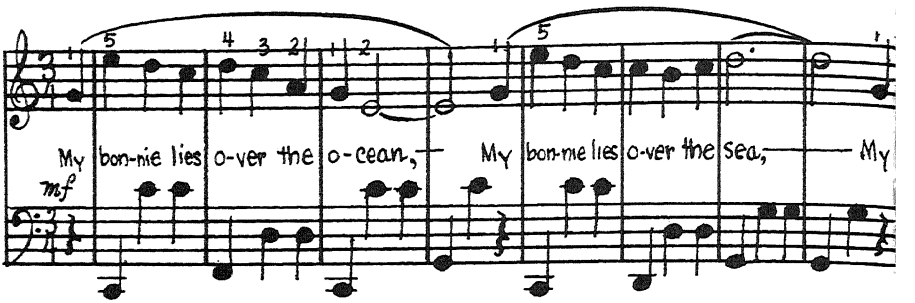


FIGURE 119

over the sea." The working of the bellows should fit in with the phrasing and the rhythm of the music.

No fingering is shown for the basses, since this is a matter of personal choice and each person usually works out the method that suits him best. Some people like to play the fundamental notes most of the time with the second finger, and the chords with their first finger. Others like to use the third finger on the fundamentals and the second finger on the chords.

One of the most important things about the left hand's playing is to use a very short, quick touch. You should press down a button, sound the note, and lift your finger at once—or even quicker. That is the only way you will get the clean-cut bass effect that is needed for good playing.

Both Hands Together

Just like learning how to use both hands together on the piano, which is a matter of practice and repetition, the accordion player has to go slowly at the beginning and play simply written tunes until he gets the knack of two-hand playing. A good book of simple accordion exercises is also a great help at the beginning stage and we would include a dozen or more of them here if we could.

A standard exercise to use at the start is to play C with the

right hand, and play fundamental C and three C major chords with the left hand, repeating this until it is easy to do. Then shift to D with the right hand and G and the G major chord with your left.

A little experimenting will take you farther faster than anything more that we could write here. *But*, this is one case where we feel you should do your experimenting with the help of tunes or exercises arranged specially for the accordion, so your bass notes and chords will be written out for you in the music.

Larger Accordions

We have friends who say that it is easier to play on the larger accordions, even the big 120 bass one, than on a small 12-bass instrument. This is probably true for people who are already familiar with the piano and with music generally. We wanted to put this comment in here, because a lot of people think that a large accordion is more complicated and difficult to play than it really is.

On a 120-bass accordion there are six rows of bass buttons, each containing twenty buttons.

The first row is the counter bass. Each of its notes is three tones higher than the note next to it in the second row, which is the fundamental bass found on the 12-bass accordion. The counter basses are added largely as a matter of convenience. They enable the player to play his various low bass notes without making long jumps up and down the fundamental bass row.

The third row is the major chord row, which has been explained in connection with the 12-bass accordion.

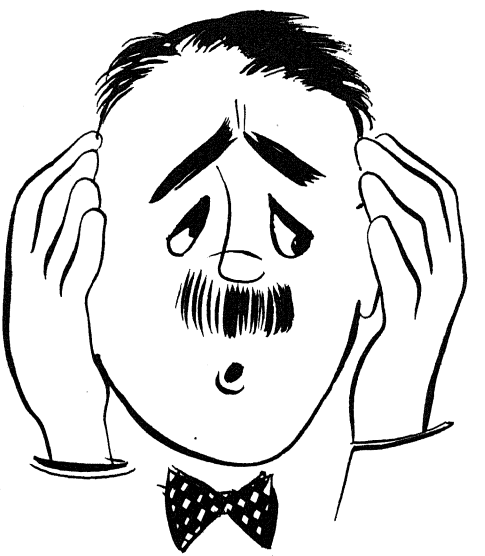
The fourth row is the minor chord row. It makes the minor chords of the key in which you are playing.

The fifth row buttons make the dominant seventh chords of the key in which you are playing; and the sixth row buttons make the diminished seventh chords.

The amazing thing about this big keyboard is that it can

easily be played with two or four fingers. This is largely because the buttons of the six rows are arranged next to each other in diagonal lines according to keys, and you can get a tremendous variation in effect just by using the buttons of one, two or three rows.

If you start by playing fundamental C in the second row, the button right next to it gives you the C major chord, the next button the C minor chord, the next button the C dominant seventh chord, and the next and last button the C diminished seventh chord. And you can jump from button to button like lightning once you get used to their arrangement.

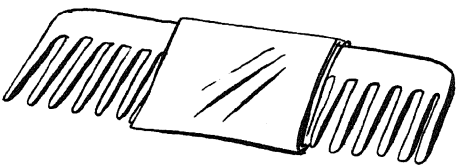


THIS MAY NOT BE MUSIC
BUT IT'S FUN!

Chapter 27
THE COMB KAZOO

ALMOST EVERYONE at one time or another has played the comb kazoo, but every now and then we run into people who have never heard of it. Accordingly, we are including it in the book.

A comb kazoo is an ordinary comb around which a piece of tissue paper is wrapped. Hold the paper over the teeth of the comb and put the comb against your lips. Then, keeping your lips open a little, sing or hum a tune into the comb. The humming or singing tone is changed by the tissue paper to sound something like a brass band—that is, if you have a good, lively imagination.



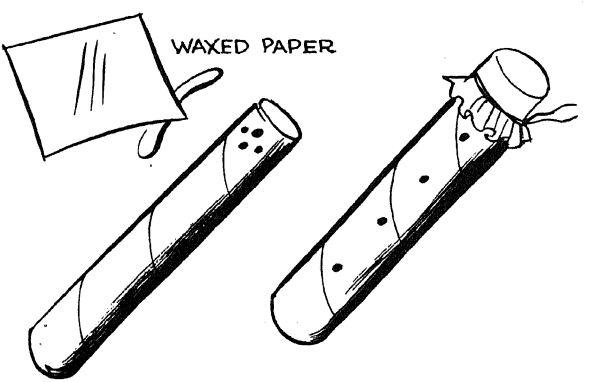
Chapter 28
THE BAZOOMER or HUMBUZZER

THIS HOME-MADE instrument is called either a bazoomer or a humbuzzer. Both names give pretty good descriptions of the musical tones it produces.

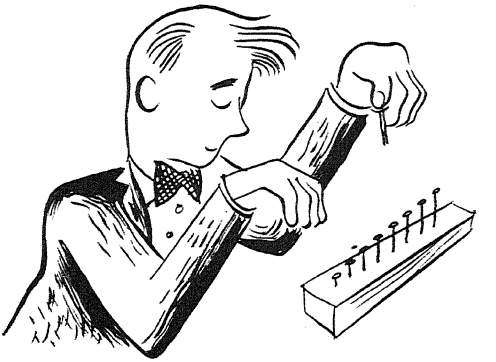
It consists of a cardboard cylinder, which may be a cardboard mailing tube or a tube of the kind that comes inside a roll of paper towels. It should be about 10 inches long and have about a 3-inch diameter, although the dimensions are not very important.

Punch four or five small holes through the tube about 1½ inches from one end, or else arrange these holes in a line, as on a fife. Then cover the end with a square of waxed paper, held in place by string or a rubber band.

Now hum a tune into the open end and see what happens. The instrument will increase the sound volume to quite an amazing degree and give it a resonant, booming quality. By covering the holes with your fingers, you can produce different notes.



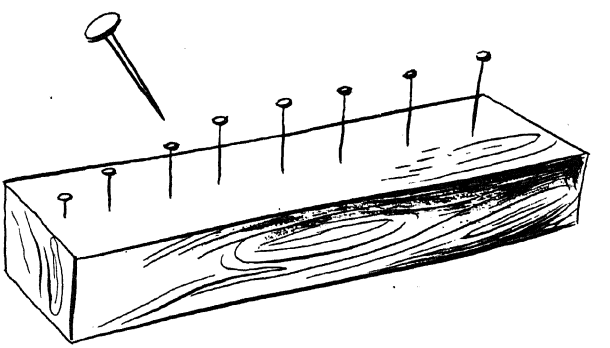
Chapter 29
A PIN PIANO



YOU CAN REALLY play tunes on a Pin Piano, for it contains a full octave of notes and with this number you can play a good many tunes like "Home Sweet Home," "Auld Lang Syne," and so on.

The base of the piano is a piece of soft wood, about 14 inches long and 3 inches wide. Draw a pencil line along the lengthwise center line of the wood and make eight dots on the line, each dot 1½ inches from the next one.

Now take a hammer and drive a pin into each dot. Use the longest pins you can get and arrange them so that each succeeding one is deeper in the wood than the one before. This gives each pin a different tone and each pin can become a note in the scale by driving it the proper distance into the wood. The deeper in you drive a pin, the higher the pitch of its tone. You play the Pin Piano with a nail, which is tapped against the pins.



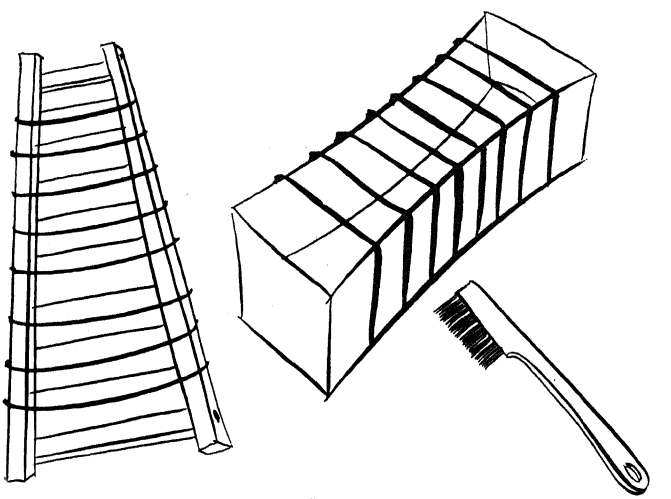
Chapter 30
A RUBBER BAND HARP

A RUBBER BAND harp is fun to make and fun to play on. If you have the right size rubber band, you can play a number of simple tunes such as "Juanita," "Jingle Bells," "Aloha Oe," "America," and so on.

The harp is made of two sticks of wood about 12 to 15 inches long, joined together at top and bottom by cross-pieces fastened by small nails. When this framework is complete, you string the harp by stretching a number of rubber bands over the two side pieces. Each rubber band should be stretched more tightly than the one above it, so it will give a higher tone.

By experimenting with different size bands, you can get a true octave or two octaves, even including some sharps and flats.

You can also make a first-class rubber band harp by stretching rubber bands around a shoe box, as shown in the drawing. Arrange the bands so they will play a scale and then try playing them by rubbing an old tooth brush across them or plucking them with your fingers.



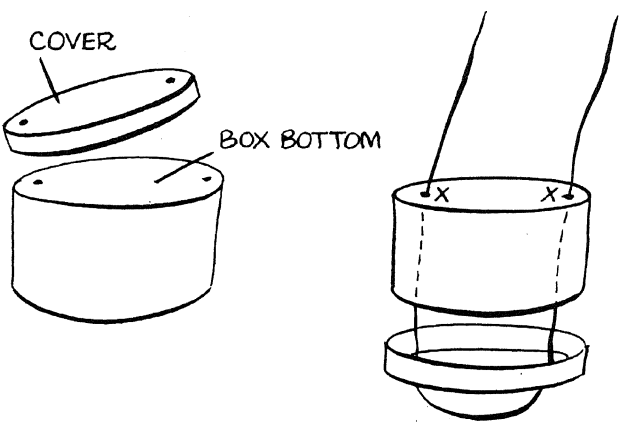
Chapter 31
BOX DRUMS

YOU CAN MAKE a mighty good home-made drum out of a shoe box or a round hat box. Try one of these out and you will be pleased with the results.

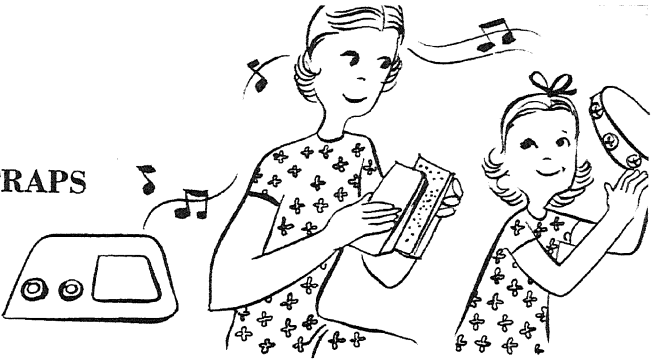
Take a strong cardboard box (such as a shoe or hat box) and punch two holes in its cover, one at each side. Turn the box upside down and make two holes through its bottom, directly under the holes you punched in the cover.

Thread a piece of strong string through the holes as shown in the drawing. Draw the box and the cover together and tie large knots in the string at X and X, to hold the cover tightly against the box. Then tie the ends of the string together to form a loop to go around your neck.

For drumsticks you can use sticks of wood, tablespoons or wooden clothespins.

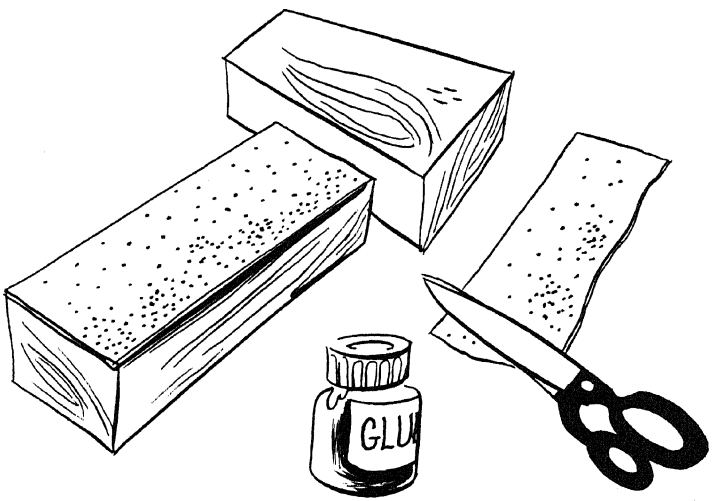


Chapter 32
DRUMMERS' TRAPS



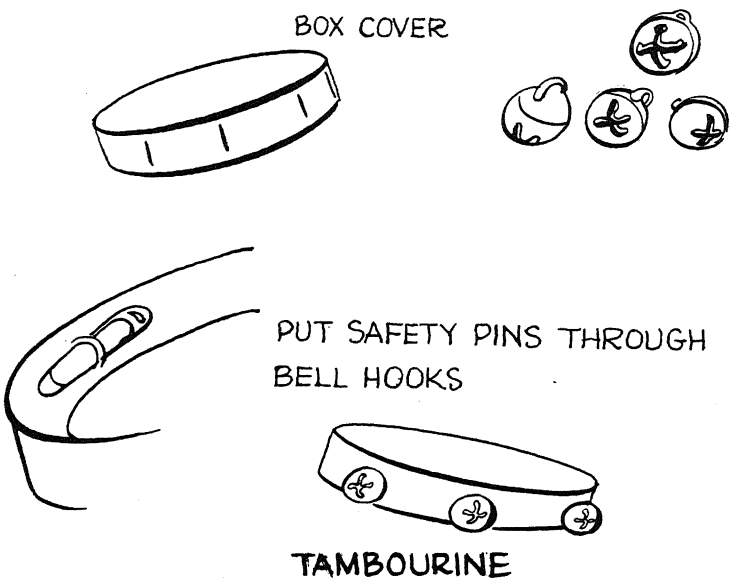
THE TWO DEVICES illustrated here, which are part of many trap drummers' equipment, can be easily made and can be used to keep time with the music of your home-made band or of the radio. One device is a set of sand blocks, which you rub together to make that shuffling effect you have heard so many times in dance band music. The other is a tambourine with bells, which you can shake and strike against your knee and with your fist.

The sand blocks are easy. They are two wooden blocks, each 6 inches long, 4 inches wide, and 2 inches deep, with sandpaper glued to one side. Just rub the sandpaper sides together and you will get the popular shuffling effect.



The tambourine is made from the top of a round cardboard box of the kind that some breakfast foods come in. To it are fastened five or six small bells like those that come on baby rattles and other toys.

Cut slits in the side of the box top. Then put the bell hooks through the slits and fasten them in place with safety pins.



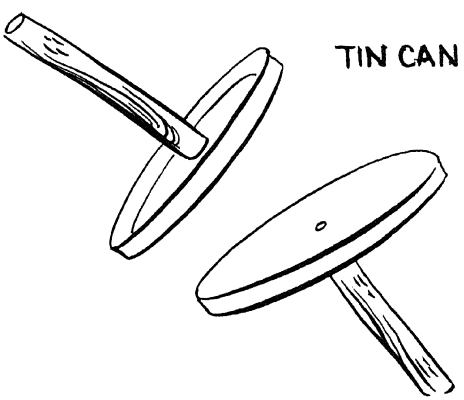
Chapter 33
HOME-MADE CYMBALS

CYMBALS FOR a home-made band or to keep time with the music on the radio can be made from kitchen sauce pot covers or from the tops of coffee or other tins.

Pot covers are already made as cymbals. They don't have to have anything done to them. Just get two medium-sized covers, hold them by the handles, and bang them together. That's all there is to that.

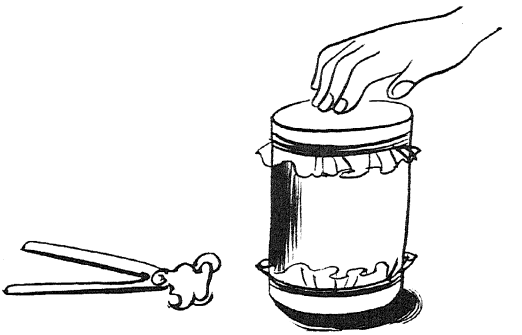
The other kind of cymbals are made from two covers or tops of coffee cans. Cut two wooden handles from an old broom or from 1-inch wooden dowel. Then punch a small nail-hole in the exact center of each cover. Drive nails through the holes into the handles and the cymbals are all set and ready to go.

An important point is not to nail the covers tight up against the handles. Leave a small space between, and you will get a better and louder noise.



TIN CAN TOP CYMBALS

Chapter 34
TIN CAN TOM-TOMS



TOM-TOMS of different sizes and tones are easily made by stretching inner tube drumheads over the open ends of tin cans. Use small vegetable cans and the larger ones in which fruits, fruit juices and jams are put up.

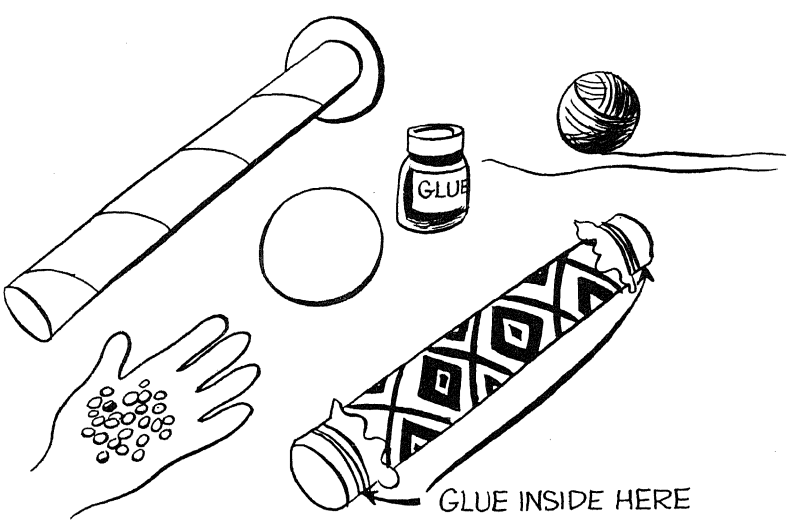
Remove the ends with one of the twisting kind of can openers. They turn down the sharp edge and make a smooth rim that will not cut your fingers or the rubber. The drumheads are held in place with pieces of string wound around the can as shown in the drawing. The tom-toms can be played either with drumsticks or your fingers.

Chapter 35
BEAN RATTLES (Maracas)

YOU CAN HAVE a wonderful time with a home-made bean rattle, which makes a noise just like the maracas that you hear with so much of the Cuban and Mexican popular music.

The rattle consists of a cardboard tube such as a mailing tube or a tube such as paper towels are rolled on. Cut two circles of heavy paper, each about 2 inches larger in diameter than the tube. Put one of these over one end of the tube and fasten it in place with both glue and string.

Now put a handful of beans, rice and pebbles into the tube and cover the second end. Then shake the tube and it will make the rattling noise characteristic of the maraca.



If you want to, you can cover the tube with decorative wrapping paper to give it a gay appearance.

You can make another rattle that will give with different noises by putting some beans and pebbles in a tin coffee container. These containers have tight-fitting lids, but it is a good idea to fasten the lids down with adhesive tape.

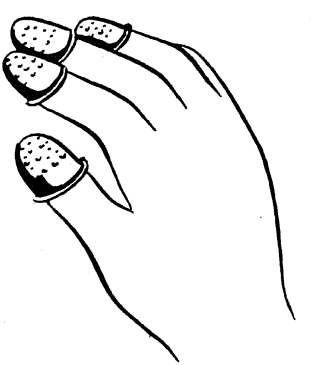
Another way to make maracas is to put dried beans or small pebbles into bottles. Use ketchup bottles or the long-necked kind that salad dressings come in.

Chapter 36
MUSICAL WASHBOARDS

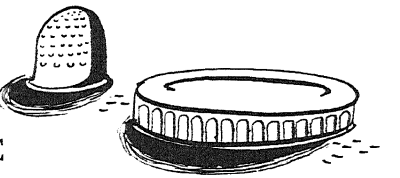
DID YOU EVER play a washboard? If you haven't, you've got some real fun ahead of you, particularly if you can use your washboard with other instruments as part of an orchestra. Lots of orchestras that play over the radio and for dancing have washboard players nowadays.

You can use any washboard of any size—from the miniature boards to the regular-sized ones. Different boards make different tones according to size and the material of which they are made. There are glass boards as well as metal ones.

To play the board you need five thimbles—one for the thumb and each finger of the right hand. Put the thimbles on and then run them up and down over the ridges on the board. You can make any rhythm you want to and can get some major musical (?) effects.



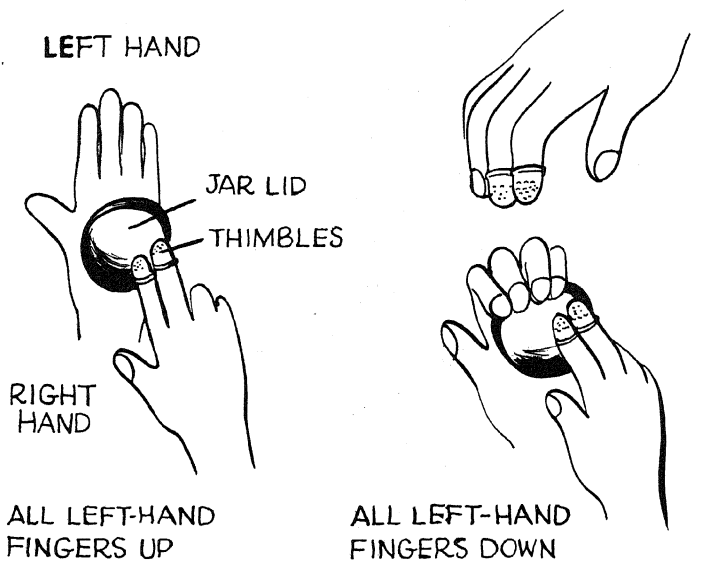
Chapter 37
THIMBLE AND JAR-LID MUSIC



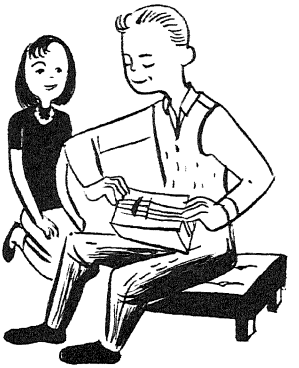
THIS IS A wonderful combination of instruments with which to beat out the rhythm of a piece that an orchestra or some of your friends are playing.

Get a tin jar lid such as the ones that come on mayonnaise jars and many other kinds of food containers. Then put a thimble on the first and second fingers of your right hand and tap the jar lid in the way shown in the drawings.

An interesting thing about this rhythm device is that you can change its tone by using your left-hand fingers. The fewer fingers touching the jar lid, the more resonant are its tones. With practice you can make simple tunes by quickly raising and lowering your fingers to make different notes.



Chapter 38
A RUBBER BAND BANJO



THIS UNIQUE little banjo really sounds a good deal like the real instrument. You'll be surprised at the results you can get.

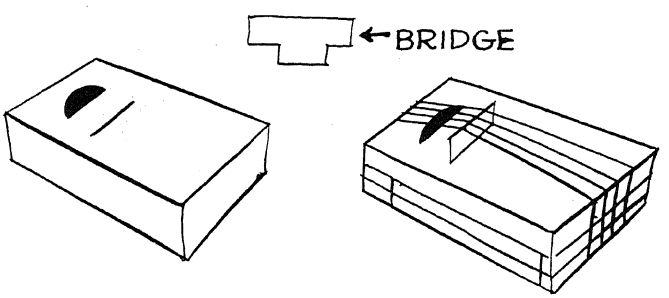
The body of the banjo is a cardboard box that should measure about five inches long, four inches wide, and two inches deep. If you cannot get a box this size, get one near to it.

Cut a sound hole and a slot in the cover of the box, using the point of a knife. Then cut a bridge shaped as shown in the drawing from a piece of heavy cardboard. The bottom part of the bridge should fit tightly in the slot cut in the box cover.

Put the cover on the box and secure it with strips of Scotch Tape or gummed paper.

Now get four rubber bands, each a different size, and stretch them around the box, passing them over the bridge. This completes the banjo, which you play by picking the strings with a finger or a toothpick.

Each rubber band makes a different note, as they are of different sizes and the smaller ones are stretched more tightly than the larger ones.

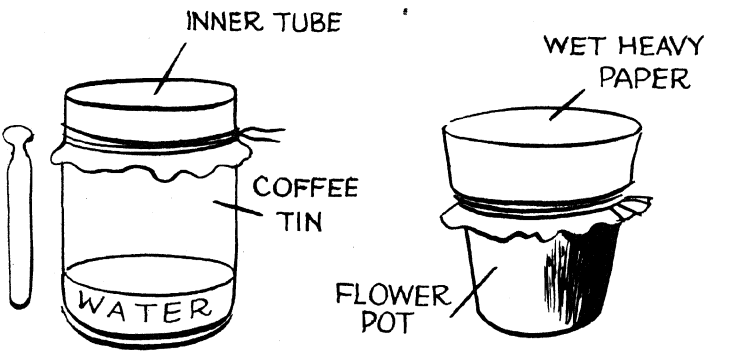


Chapter 39
INDIAN MUSICAL INSTRUMENTS

IF YOU WANT to try something a little different from the usual musical instruments, make some of the Indian instruments pictured here.

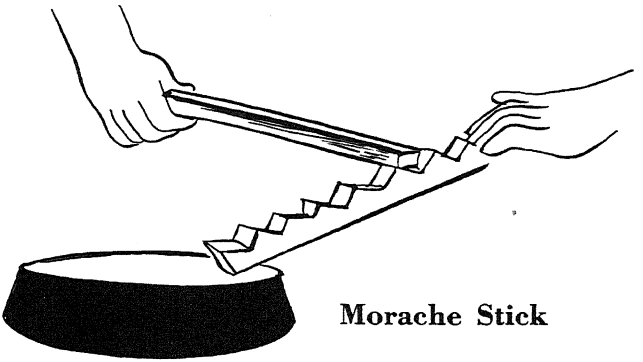
An Indian water drum, which makes a distinctive noise, is made from an empty coffee tin with a drumhead cut from a discarded inner tube. Put a little water in the tin and bind the circular rubber drumhead tightly across its top, securing it with a strong cord. Be sure to make the drumhead as taut as possible. This kind of drum is beaten with a small wooden drumstick, just a little longer than a pencil.

An earthenware drum is made from a large empty flowerpot with a wet sheet of heavy paper stretched tightly across its top. As the paper dries, it shrinks and makes an excellent drumhead.



WATER DRUM

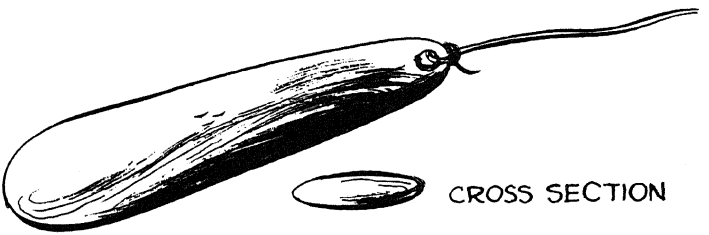
EARTHENWARE DRUM



Morache Stick

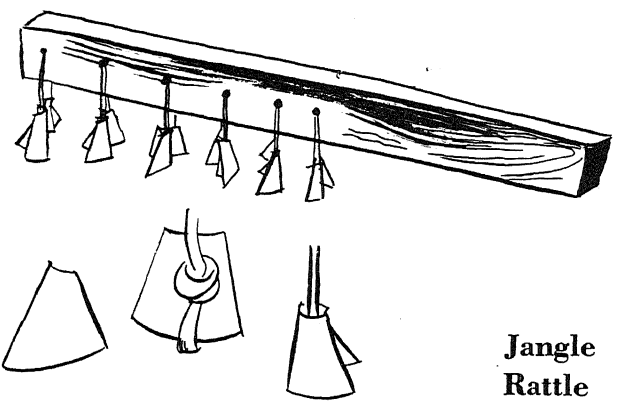
An Indian morache stick is a notched stick about 15 inches long. This is placed upon an inverted bowl or metal dish pan, which acts as a resonator. Another stick is then moved rhythmically up and down over the notches, keeping time with the music.

Indians use bull roarers to imitate thunder during their ceremonies and dances. You can make a bull roarer by whittling a piece of wood about 10 inches long to the shape shown in the drawing and fastening a piece of string about five feet long through the hole. Then whirl the stick around your head and it will produce a weird roaring sound. You can also use a ruler with a hole bored in one end for a bull roarer. This makes a good sound and saves a lot of whittling.



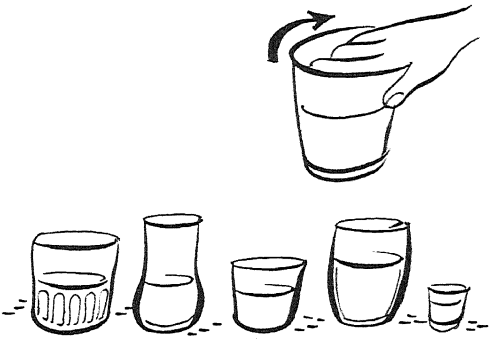
Bull Roarer

Jangle rattles are also used by the Indians in their dances. They consist of a wooden handle to which triangular metal pieces are attached. Cut about twelve pieces of tin from tin cans into the triangular shape shown in the drawing. Whittle out a handle and bore six holes through it to accommodate six pieces of heavy cord. Knot the cords on each side of the holes to keep them from slipping through. Then tie large knots in the ends of the cords and bend the tin pieces around them. The jangle rattles make a silvery tinkling sound when they are shaken in time with the music.



Jangle Rattle

Chapter 40
MUSICAL GLASSES AND BOTTLES



THERE ARE TWO kinds of musical glasses—the kind you rub and the kind you hit. Both are good fun to experiment with and some people become really expert at getting tunes out of them.

If you want to rub a musical glass, first fill it about one-quarter full of water. Then dip your first two fingers in the water and rub them slowly around the rim of the glass. In a moment or two the glass will start to hum and give off a clear singing tone. You can vary the pitch of the tone by the amount of water you put in the glass. The more water the deeper the tone.

Get three or four people rubbing glasses containing different amounts of water and you will have some very weird and wonderful harmonies.

You can get more of a tune out of the glasses that you hit. Put six or more glasses of different sizes on a table. Then put varying amounts of water in them so each one will produce a different note. With a little experimenting and glasses of sufficiently different size, you can make a complete scale. Then by tapping the glasses with a pencil or a fork, you can play "America," "Aloha Oe," "The Farmer in the Dell," and a number of other different tunes.

You can also use bottles for this kind of music. Get bottles of different sizes and fill them with different amounts of water until you can play a scale on them. Some bottles that are good for this purpose are milk bottles, ketchup bottles, vinegar bottles and different sizes of medicine bottles.

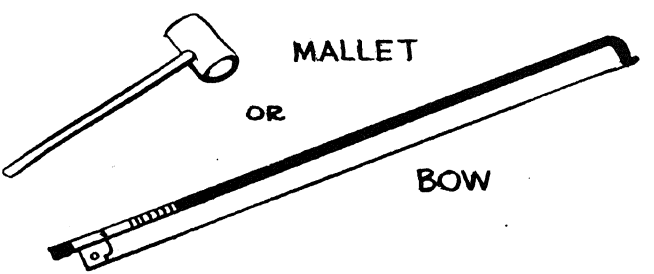
Chapter 41
THE MUSICAL SAW

ANY BOY or girl can learn to play the musical saw. It is a fascinating instrument, and one on which some of the greatest movie stars and other well-known people enjoy playing.

You can use an ordinary saw or purchase a special musical saw at a music store. There is not much difference between them insofar as tone production is concerned. You will also need a small wooden mallet (such as they use with a xylophone) or a well-rosined violin bow. The saw is played either by striking it with the mallet or drawing the bow across it.

Put the handle of the saw between your knees and grip it firmly. The back edge of the saw should be away from you, the teeth toward you.

Hold the upper end of the saw with your right or left hand, whichever is easier for you. Most people, we think, use the

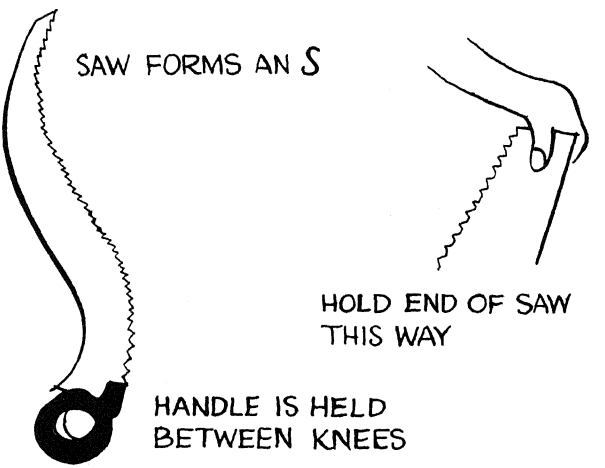


left hand. With this hand bend the saw so its blade has a shape like a long, thin letter S, as indicated in the drawing.

Then strike the saw with a mallet or draw the violin bow across the back edge of the saw. A note something like a Hawaiian guitar note will result.

The next step is to make the saw produce different tones. This is done by bending the saw a little more or a little less, always keeping it in the shape of an S.

The musical saw is used as a rule to play simple, slow tunes. Try "Aloha Oe" and some of the other Hawaiian ones as starters.



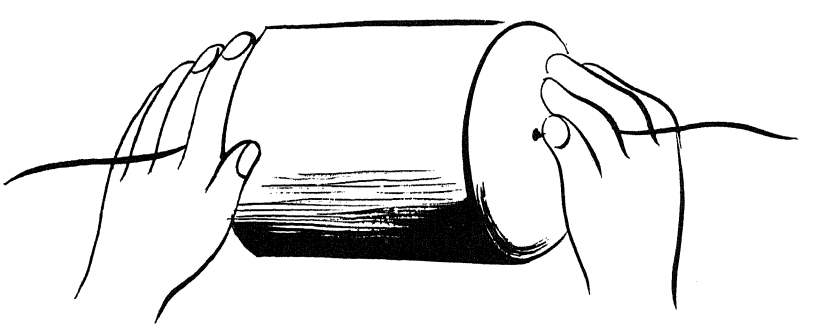
Chapter 42
THE ROSIN CAN

WE WOULD hardly call this a musical instrument, but musical friends have stoutly maintained that it is one and have said that this book would be incomplete without it. And so, here it is—the last and probably the most unmusical instrument in the book.

What its correct name is, we don't know. We have heard it called a Rosin Can, a Bull Roarer and a Squawker, so you can make your own choice.

To make it, take a tin coffee can and make a small hole in the bottom. Through this hole you thread a piece of strong string well-rubbed with rosin. You can get the rosin at a music store, for violinists use it on their bows. Tie a knot in each end of the string and everything is all set.

To operate the gadget, hold the can with your left hand, clipping the string between your left fingers. Then take the other end of the string in your right hand, pull it taut and pull it through the hole, letting the string slip through your left fingers. If everything works well, you should get a loud burring or roaring sound.



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