A COURSE OF STUDY FOR PERCUSSION INSTRUMENTS

A Thesis Presented for the
Degree of Master of Arts

by

Mildred May Killgrove, B.S.

THE OHIO STATE UNIVERSITY

1947

Approved by:

[Signature]
INTRODUCTION

One of the greatest problems of the instrumental music teacher is that of teaching rhythm. In the writer's experience school band and orchestra rehearsals are interrupted most frequently because of rhythmic problems. A basic understanding of rhythm is essential for every instrumentalist, but one group in particular must become absolute perfectionists. I refer to the percussion players, whose contribution to the musical organization is primarily rhythmic. For this group, the percussionists, the following course of study has been prepared.

This method was developed in actual class room teaching over a four year period of observation and experimentation. As the situation demanded, material was revised and supplemented. There is yet room for expansion, if the progressive teacher is so motivated. For this purpose much supplementary material may be found in the appendix. However, the course of study is complete without the supplement.

CLASS APPROACH

This course was designed for class lessons because class instruction offers many advantages over private instruction. First of all, group activity is much more attractive to the students than individual work.

* The World of Music Band Course, Teachers' Book - Revelli, Rebmann, Righter. Ginn and Company
The desire to be one of a group should not be ignored.

Group experience is necessary since the ultimate goal of the student is to become a member of a much larger group. Here from the start, the student learns the invaluable lesson of cooperation. His very efforts contribute to the success of the class.

Through his observation of others, he learns quickly to recognize and correct his mistakes.

Because human beings tend to imitate those whom they respect and admire, the student will strive to pattern after the best in the class. Motivation for leadership is thus stimulated. Competition for that leadership will add zest and incentive to serious individual application.

PURPOSE OF RECORDS

Psychology teaches that we learn to do quickly those things which bring enjoyment. Consequently, the aim of this course of study is to provide an enjoyable musical experience in teaching the basic elements of rhythm. For this purpose, recordings are used to serve as an orchestra with which each potential percussionist may play.

Recordings provide a far more satisfactory experience than the school band or orchestra, for the records were made by artist groups and the instrumentation is complete. The music is simple or complicated according to the immediate needs of the student; but, at the same time, musical taste
does not suffer, for only music of true value is used. The already trained band personnel does not become bored through repetition of one particular tune in working out percussion problems. Often the music used is too easy for the performance level of a school organization.

The use of records enables the teacher to focus her attention on the percussion group. The group gets immediate assistance when it is needed, and problems characteristic to the percussive section may be drilled upon without the risk of loss of interest of other instrumentalists.

ORDER OF PRESENTING INSTRUMENTS

At first imitation is natural and desirable in class instruction; therefore, every student begins with the study of the snare drum. There are certain basic skills which all must acquire, and, when the entire class is doing the same thing at the same time, the teacher can quickly check errors before they become habits. Because the bass drum and the snare drum are inseparable in most band music, they are played together after the first lesson. It is recommended that the teacher devise some system of rotation so that every student is given the opportunity of playing the bass drum while the rest of the class play the snare.

After the student has acquired skill in handling the sticks and in reading rhythmic patterns in quarter, eighth,
and sixteenth note values, he is introduced to other percussion instruments. These include the cymbal, the tambourine, the castanets, the triangle and the wood-block. These are studied in the same lesson. Music reading for these instruments should present no difficulty if the student has conscientiously studied the preceding lessons for snare and bass drum. The student should be able to focus his attention upon the technic of playing the new percussive instruments. Again a system of rotation is recommended so that each student has some experience on every percussive instrument.

The bells are presented in a special lesson because they are a melodic as well as a percussive instrument and require instruction in G clef note reading and in keyboard manipulation.

The lesson in Key Signatures should not be too complicated, since most grade children have had some experience in recognizing keys or "do" from the key signature. The explanatory material is brief and the teacher may desire to supplement orally, depending upon the musical background of the group.

The tympani require an ear which can readily distinguish pitches in low register. One of two methods of ear training may be employed, or a combination of the two, depending upon the individual's former training and innate ability. Usually the tympani are tuned sol - do, fa - do, or do - sol; therefore, the "do - sol" system is the easier for those students
who have had much note reading with the sol-fa syllables. The student must seriously apply himself to learning all intervals, however, because an acute distinction of the intervals is necessary. He should acquaint himself with the major and minor scales and all the intervals therein.

Another method of ear training requires the student to so thoroughly familiarize himself with one definite pitch that at any time he can tune the kettle to that pitch. From that pitch he learns to associate other pitches. In other words, he develops perfect pitch for a particular tone and a keen relative pitch for all others. For the few students with the gift of a musical ear and for the few students who approach music seriously, this method is superior to the sol-fa system. However, not all beginning percussionists are musical or serious. Both methods may be used in this course of study. The teacher may exercise her own judgment and teach the one her class can grasp quickly.

APPROACH TO RHYTHM

Rhythm is not a mathematical feat but an experienced muscular response. 1 A child senses rhythm long before he mentally understands it. As Mursell has stated it: "The child does not sense the beat by attending to the arithmetical number of pulses in a bar, but by catching the swing." 2

1. Dalcroze: Eurhythmics, Art and Education
2. Mursell and Glenn: Psychology of School Music Teaching

Page 184
It is necessary, then, that rhythm be taught through muscular response.

In this course of study any or all of the recordings may be first played without the use of notation. Even the use of the percussive instruments is unnecessary for the student to experience the rhythm as he feels it. He is free to interpret rhythm through a variety of physical responses. These may include walking, running, skipping, clapping, or conducting. Thus we approach rhythm through the kinaesthetic sense rather than through a complicated system of notation.

However, because instrumental technique, especially that of the percussive instruments, is really rhythmical action, the student may interpret the rhythms he senses on his instrument from the very first lesson. The important thing is that he express the rhythm he feels before he is confronted with a mathematical puzzle in the form of notation. In other words, we do not approach rhythm through time, but time through rhythm.

There are two essential elements in musical rhythm; the rhythm phrase and the beat.¹ The beat is the underlying pulsation continuing throughout the piece. It serves to give rhythm phrases continuity. They rhythm phrase consists of a series of notes just as melodic phrase consists of its series of notes. Neither the rhythm phrase nor the beat are complete without each other. Both are necessary to a total musical rhythm.

¹ Mursell and Glenn: Psychology of School Music Teaching, Rhythmic Training Page 177
The student may physically respond to either the beat or the rhythm phrase or perhaps alternate between the two. It should be understood that as long as his rhythm corresponds to either of the rhythmic elements, he is to be encouraged. Later he will discover that the bass drum usually adheres to the beat, whereas the snare drum frequently plays the rhythm phrase.

After the student has experienced and interpreted rhythm he is ready to proceed to the notation which exemplifies that experience. The relationship between the visual and the aural then becomes significant. The score is used not as an end in itself, but as a challenge toward further musical experience. Elaborate systems of notation do not prevent the student from making music.

This does not imply that drill will be unnecessary in learning rhythm. Drill has its place, but it is used only as the need arises in actual musical situations. This is what is meant by meaningful drill. Real learning then takes place, for "learning is an intellectual affair since it is identified with the perception of significant relationships".¹

¹ Bode: How We Learn, The Pragmatic Theory of Learning
Lesson One

Play part of the record: May Pole Dance Victor Record 20990 B

Play the record again asking the pupils to make some physical response to the rhythm they feel. This response may be with or without drum sticks. Clapping or walking is suggested.

Physical responses will differ. That is, some will respond to the rhythm phrase while others will respond to the beat. Record a portion of the various responses on the black-board.

The best response will be a series of quarter notes:

One rhythm phrase will be a combination of quarter and eighth notes:

A more complicated rhythm phrase which precisely follows the melody will result in quarter, eighth, and sixteenth notes:

Needless to say, the beat response is the easiest to play, and the rhythm phrase which follows the exact melody pattern is the hardest. Let the class decide which is better suited for the bass drum and which for the snare drum.

Play the record again having those who find it difficult to manipulate the sticks, pretend they are playing the bass drum (the beat rhythm). The others with greater muscular dexterity may play either of the rhythm phrases. Call attention to the measures of forte and piano. There is also a rallentando to be observed. If the class is unfamiliar with
these musical terms, write them on the board and explain their meanings.

It will be necessary for the teacher to demonstrate how to hold the sticks and to show the proper manner of striking the practice pads or the drum head. The technic of playing the bass drum will also require special demonstration.

Now turn to the first page of the book. Without explanation have the class play each of the three rhythmic interpretations with the recording. A free discussion should follow each playing, if questions concerning note values arise. Most upper elementary pupils have had previous experience with all the symbols presented in this lesson. Answers to questions arising can probably be found through class discussion.

Lesson Two

Play the record: The Keeper Victor Record 22455 B

Play the recording a second time as the class responds to the rhythm. Again a variety of responses is inevitable. The tempo of the piece will suggest that the rhythm phrase should differ from the melodic line in places. Let the class determine where the differentiation should be and to what extent. The class should discover that accented notes require more time than unaccented notes. Check on correct stick holds and relaxed wrist action.

Again let part of the group pretend they are bass drummers while the rest play the snare drum part. This procedure is
used only until all can properly manipulate the sticks. Then a system of rotation for playing the bass drum is used.

The score is presented for reading with the third playing of the recording. As in the first lesson, questions regarding note values may arise. These should be answerable by the class.

Play the recording: Kye Song of Saint Bride Victor Record 22455 B

The class responds to the rhythm with the second playing of the recording. All should feel the strong accented beat. Just for fun have several notate their rhythmic responses on the black-board. This experience should not be new, but the teacher should give assistance where it is needed.

The class may compare the pupils' notations with that found in the book. Let them understand that any variety of notations may be used as long as the original rhythm is not destroyed.

All play from the score with the third playing of the recording. If the rhythms on the black-board merit special consideration, let the class play those interpretations with the record a fourth time.

Play the recording: Music In The Air Victor Record 22455 B

The class may play with the recording the second time.

Have a pupil write his choice of notations on the black-board. At first it is wise to select students who demonstrate a keen sense of rhythm. Eventually all class members should be able to write their rhythmic ideas. Compare the black-
board notations with the one found in the book.

Play the notations with the record.

Lesson Three

Thus far the drumming has consisted merely of alternating the sticks. Of course, the teacher should have constantly checked the finger grip and relaxation of the wrists. Now the student is ready for the first rudiment. The teacher may explain to the class that in order to make drumming more interesting there are a number of rudiments which will be presented one at a time. The first of these is the flam. A demonstration follows and the class imitates. There is no notation to read until the student has the muscular feel of the rudiment. Lesson three in the book fully explains how to play the flam, but teacher demonstration is far more effective than the mere reading of the explanation. When every member of the class can manipulate the flam, play the recording: Don Juan Minuet and ask the class to find possible places for the flam.

With the second playing of the record let the class try inserting flams. Advise them to think first of the rhythm. Never destroy the rhythmic idea for the sake of adding a flam.

Now turn to the notation in the book in lesson three. Have the class play it with the record. Ask for comments and suggestions.

1. Brooks and Brown: Music Education in the Elementary School
Because the flam may present a manipulative problem to many students, a few exercises are included for isolated drill. This is justifiable since the pupil recognizes the difficulty and understands that he is practicing a part which makes the whole easier to perform. I quote Brooks and Brown on isolated drill. "When a difficult element is encountered in any situation and slows up or obstructs the process or activity with which it is connected, it is probably appropriate to remove it from its setting for special attention."

After the flam has been practiced, it is psychologically advisable to return to the music from which the problem arose. This, according to the same authors, is an approved practice. The drill has become meaningful.

Lesson Four

Records: Lullaby \textit{Victor Record 22160 A}
\underline{Little Sandman}
\underline{Hush My Babe}

Each of the three records are to be used as previous records were used.

1. Play recording.
2. Class experiences rhythmic response with recording.
3. Class plays rhythms with recording.
4. Class reads and plays the prepared score with recording.
5. Class analyzes problems encountered.

The prepared score for each of these pieces stresses simplicity of rhythm.

1. Brooks and Brown: \textit{Music Education in the Elementary School}

Page 95
Lesson Five

Record: Etincelles, Etude Joyeuse, Barcarolle Victor Record 22767 A

1. Play the recordings which are in six-eight time. The class should discover a new kind of rhythm within the rhythm phrase. The rhythm phrase should suggest a triplet for every beat.

2. Have every one play the beat with the recording. Then have every one play the rhythm phrase with the recording.

3. Read the score and play with the recording.

After the three pieces have been studied according to the same plan, the class may discuss the rhythmical differences between 2 and 8 time. 2 and 8 time should also be clearly distinguished. Too frequently students believe that six-eight time may be played with three beats to a measure.

Lesson Six

Records: The Wild Horseman, The Rider's Story Victor Record 22162 A

These records are also in 8 time. They are to be used as the recording in lesson five is used. They serve as a check on the comprehension of compound time.

Lesson Seven

Records: Waltz, Light Cavalry, Serenata, Tarantelle Victor Record 20079 B

The plan of procedure is the same as outlined in previous lessons. The Waltz in three-four should give no trouble at all.
Light Cavalry in six-eight requires finger dexterity, but, because the tune is very well known, the rhythm will be easy. Serenata introduces the class to "after beat." If the class experiences difficulty have them say "um-pah" as they play. The bass drum plays on the "um", and the snare on the "pah". Much fun may be had with "after beats". Perhaps the class would enjoy trying this rhythm with the May Pole recording. This is to be done without notation, but would read:

if it were written.

Better yet, have a good student pianist play well-known folk-tunes and let the class provide the "after beat" rhythm. The Tarantelle is really quite easy and provides interesting material on accented notes.

Lesson Eight

Record: Kye Song of Saint Bride Victor Record 22455 B

This more difficult version of an earlier studied piece (lesson two) provides the opportunity for teaching the rudiments, the paradiddle and the double paradiddle. It should be understood by the teacher and pupil alike that these two rudiments are used wholly for the purpose of making drumming easier. The teacher should demonstrate each rudiment and let the class learn by imitation. The class should discover where each rudiment may be used in the piece before the notation is presented. If drill material is necessary in perfecting the rudiments the exercises may be used. However, some groups
Lesson Nine

In this lesson the cymbals, the triangle, the tambourine, the castanets, and the wood-block are introduced. According to Brooks and Brown the proper procedure for teaching instruments is to stimulate, explain, let the child experience or assimilate, then react or play the instrument. This is called manipulative learning. The desire to play the instrument presents the stimulus. The teacher demonstrates and explains how to hold and play the instrument. The child by imitation learns to produce sounds on the instrument. Then, as the last step, he actually plays the instrument. The above process of teaching is to be given orally. Every child should experience the playing of each instrument before the class proceeds to the notation in lesson nine. The system of notation is not complicated, but the teacher must help the student find the cues in the score for the various instruments. Brief explanatory exercises have been prepared as a teaching aid.

The record: Shepherd's Hey may be presented simultaneously with the score if the class finds note reading easy.

According to Bode, "Learning is a reconstruction of experience."  

1. Brooks and Brown: Music Education in the Elementary School
2. Bode: How We Learn
Here is the opportunity for the pupil to project previous experience into a new situation. The teacher at the same time can check on the learner's progress.

Lesson Ten

The study of the bells should be approached in a manner similar to the one used in teaching vocal music, namely, rote. The teacher may play a well known tune on the bells and then ask a member of the class to repeat the performance. She might then suggest that another member play the tune starting on another key. She need not use the same tune for every member of the class, for there are any number of tunes the elementary pupil has acquired through the vocal program. A frequent change of key is recommended to facilitate a mastery of the keyboard. However, the teacher must not focus attention on key signatures or flats or sharps. The learning of these techniques is purely incidental. Kilpatrick, the great educator, states that a working mastery can be achieved without memorizing and without direct attack.

After the class has experienced playing tunes on the bells by rote, the teacher may present the tuneful exercises found in lesson ten. Perhaps the only assistance required of the teacher is that of finding the first tone on the bells. Previous vocal experience with the staff should enable the pupil to sight read the material with little or no effort.
If more assistance is needed, the class members or teacher may help the student discover like phrases or melody patterns. The first three tunes consist of only five different tones and the same intervals are repeated again and again. The fourth tune is placed an octave higher, but most pupils quickly adapt themselves to the new register. Because the exercises consist of parts of familiar songs, the rhythms should present little or no difficulty in spite of the fact they are written in $\frac{4}{4}$, $\frac{3}{4}$, and $\frac{5}{8}$ time. Again notation and technique are handled incidentally.

Lesson Eleven

The record *Hush My Babe*, which has previously been presented (in lesson four) with snare and bass drum parts, is the first selected for the bells. The pupil plays from the score as he hears the recording. The one possible stumbling block has been removed by placing the B flat beside every B rather than in its proper place in the key signature. If the pupil does not automatically question the B flat, the teacher, through suggestion, arouses his curiosity. Perhaps a member of the class who has studied piano can enlighten the group concerning key signatures. However, usually upper-elementary pupils have had some training in the various key signatures. Now is the time to go into specific problems of reading the score. Various key signatures are discussed as a new piece presents a new key.
Lesson Twelve

Record: **A Plowing Song, Dreaming** Victor Record 22455 A

Both pieces are in the key of F. In **Dreaming** a few natural signs occur. Always encourage discussion of new elements. The snare and bass drum parts are provided. Rotate so that all may experience playing the bells with the group. Bell Lyres may also be used.

Lesson Thirteen

Record: **Valse Serenade** Victor Record 22767 B

A new key, D, is presented in this lesson. Also, the accidentals, C natural, A sharp, and G sharp, are introduced. Discussion should be kept to a minimum, especially on the part of the teacher. Some one in the class usually knows most of the answers.

Lesson Fourteen

The long roll rudiment is presented. Again, imitation is the easiest and best approach. However, since all teachers are not drummers, it may be necessary to enlist the aid of the high school band or orchestra drummer. Theoretically, the teacher must understand the execution of the long roll in order to assist the class in manipulating it. The work may all be done orally. The printed material merely indicates what the pupil does as he executes the long roll.

To add more interest to this lesson, the high school drummer (or teacher) may teach the class the standard roll-
off or the version the high school band uses.

Lesson Fifteen

Records: **Music in the Air** Victor Record 22455 B

**Bleking** Victor Record 20989 B

Both records afford opportunity for playing the long roll. The bells play in a new key, G, for the first recording, but in an old key, F, for the second. If rhythmic difficulty is encountered in **Bleking**, the rhythmic phrase (\[\text{rhythm figure}\]) may be isolated and every instrument may play the rhythmic figure from a black-board notation. However, if the difficulty lies in manipulating the bell mallets with dexterity, have the bell player play only the accented note in each difficult phrase. An easier version is in the review section.

Lesson Sixteen

The high school drummer may again be enlisted to demonstrate the 5, 7, and 9, stroke rolls. All teaching is to be done orally before the written symbol is given to the class. Needless to say, perfection of the rolls requires much practice. Only a minimum amount of drill work is presented here, since this course of study does not pretend to be as comprehensive as a standard method for snare drumming. It is advisable to introduce to the drummers street beats which utilize the rolls just studied. These are presented orally first, then visualized through black-board notation. The most readily comprehended street beats will be those used by the school band.
Lesson Seventeen

Records: [underline]The Keeper[plain] Victor Record 22455 B
[underline]The Ace of Diamonds[plain] Victor Record 20989 A
[underline]Sweet and Low[plain] Victor Record 22160 B

These recordings utilize the short rolls as well as the long roll. The rudiments, the flam, the paradiddle, and the flamadiddle are also used. Perhaps a brief review of these rudiments will be necessary. This type of drill is acceptable as long as the pupil senses its relative value.

The bells encounter two more key signatures, D and Eb, which may require brief explanation.

Lesson Eighteen

The tympani are discussed at length in the student's text. It is advisable for the student to follow the text as the teacher reads, explains, and demonstrates. Questions will naturally arise and they will point the way to clearer explanations and demonstrations. The teacher is urged to take as much time as necessary in explaining the mechanism of the tympani, holding and manipulating the sticks, striking the drum head, and tuning the kettles. More than one lesson may be required as preliminary work. Student participation is essential during all explanation and demonstration. This lesson is not merely a lecture. Drill in tuning the tympani is essential. Much may be done orally. The score offers a minimum of drill, but it is felt that the keen interest of the group will justify more drill.
Simple tunes with a harmonic structure of I - V may be sung by the group while a member plays the tonic - dominant tones on the tympani. Or, if a pianist is available, use the piano to supply the melody and have the class hum the harmonic bass. Junior high boys will especially enjoy this form of ear training. An adept bell player may also supply the melody for such a procedure. It is advisable to use only songs with a simple harmonic structure until the group develops an ear for bass harmony. Simple harmonic structure is especially necessary for hand-tuned or crank tympani.

Lesson Nineteen

Records: **Looby Loo; Oats, Peas, Beans, Barley Grow**
Victor Record 20214 A

**Needle's Eye, Jolly Is The Miller**
Victor Record 20214 B

These records use only I - V harmonies. Make certain the kettles are properly tuned before the student plays. A good ear training is to permit the student to pick his harmonies with no help from the score as he hears the recording.

The student should also be permitted to originate his own rhythmic conception of the harmonic structure after he determines the bass harmonies. For example, the tympani part to Looby Loo might be written in the same rhythm as the melody pattern. Then it would read:

```
\[ \text{do do do do do do do do do do do do do do do do do do do do do do do do do} \]
```

This, of course, would create a need for drills in stick
manipulation, and the student should be encouraged to further study of the tympani. However, the purpose of this course of study is to merely teach the basic technic of each instrument. There are many excellent methods already published for teaching kettle drum technic.
SUPPLEMENTARY MATERIAL

This material may be used any time the teacher feels the student is ready for it. If she wishes to use a recording before the bells have been studied, the bell part may be omitted for the time being.

THE EXPERIMENTAL CLASS

The first experimental class consisted of fifteen enthusiastic sixth and seventh graders who participated voluntarily in the project. The voluntary method met with such success that it was used throughout the four year experiment in preference to any selective method. It was undesirable that all students who participated and developed rhythmical skill should continue in the percussive section of the band and orchestra. The course of study also served as a talent prognosticator. If the individual's musical ability merited a transfer to a melodic instrument, he was encouraged to make a change. The transfer was not a setback but rather a progression. One who has acquired skill in reading rhythmic patterns accurately and rapidly, may concentrate on melody patterns alone.

In the second year the age limit extended in both directions without any visible new problems arising. None below the fifth grade were admitted because of administrative complications. When a need for remedial rhythmic study was discovered in high school instrumentalists, the course was
opened to them. Much supplementary material was added, but, since the need seemed to arise from a lack of basic understanding of rhythm, there was no need to revise the content of the course nor progress any faster than the original plan intended.

The writer is in favor of all band and orchestra members taking the prescribed course as remedial for various rhythmical ills. However, the study of the course is also justifiable in that it makes all participants aware of the important role the percussionist has in a large musical organization.

The third and fourth years of experimentation brought no change in the course of study but many recordings were added. It was discovered that teaching by the use of records was an excellent method of keeping interest high in the percussion class. Outside student interest was aroused in the rhythm class and it became necessary to sub-divide the class because of its size. Scheduling was the decisive factor and not the ability or academic standing of the student.

Materially the course has never changed, but merely supplemented. Many records which could have been used in the course were not available at the time the course was written. It should be understood that no attempt has been made to outline a complete course of study for all percussion instruments. There are many well known methods available for students who wish to make further progress on any percussion instrument.
This course aims to teach the fundamental rhythms and the basic technic of playing all percussion instruments.

CONCLUSION

In the writer's opinion, these are the visible results of participating in the course of study.

1. Better sight readers were developed.
2. Drumming technic definitely improved.
3. New talent was discovered and properly directed.
4. The percussion section was awarded a new respect.
5. Enthusiasm for rhythmical studies reached a new high.
The flam is a light tap followed by a stronger one, the two coming so close together that they sound almost like one. One stick starts about an inch above the drum head, while the other starts as high as ten inches. Bring both sticks down at the same time. Naturally, the stick closer to the head will strike first. It will cause the light tap. The higher stick, coming farther in space will cause a heavier second tap. Practice the flam stroke with either hand held high. Make sure that the sticks do not strike simultaneously, that is, at the same time.
The paradiddle is a four stroke rudiment used only when there are four like notes. At first the strokes may seem awkward, but a little concentration in this rudiment will soon give you accuracy and speed. Observe the stick markings carefully. In exercise three, a flam is played before the paradiddle. The correct term for this combination is the flamadiddle. The double paradiddle is similar to the paradiddle. Make two extra strokes before you play the paradiddle. Say "para-paradiddle" or "left right left right last left." This rudiment is used to play six consecutive even notes with speed and eveness.
CYMBALS

The cymbals should be struck glancing blows for a full, resonant tone. The cymbal part is written on the bass drum space. It is rotated by an open square with a stem attached.

The triangle is always played with a metal beater. To perform a roll, rotate the beater rapidly inside the corner of the triangle. The triangle part is usually written above the snare drum part. However, a separate score may be used for clarity.

The tambourine may be played in various manners. For individual notes the tambourine is struck with the heel of the palm of the hand, with the knuckles, or against the knee. The roll may be produced either by rapidly shaking the instrument or by running the moistened thumb around the edge of the head.

CASTANETS

Castanets are played by fast finger movements. Usually the thumb and the forefinger with the aid of the middle finger snap the castanets in rhythmic figures. Castanets mounted on a paddle require exacting wrist movement. Since the castanet is used only for special effects, its part may be cued in the snare drummers' music. If the part is lengthy, a separate score may be used.

WOOD-PLOCK

The wood-block, used only for special effects, is played with the shank of the sticks about one inch from the top. The part is written above the snare drum part.

SPECIAL EFFECT INSTRUMENTS

Other special effect instruments such as the cow-bell, the cuckoo, the siren, the sleigh bells, the steam boat whistle, etc. need no explanation. Drummers will find those parts cued when needed.
Valse Serenade

Pizzicato

Note: The music notation includes notes and measures typical of a waltz serenade, with specific instructions and dynamics indicated in the notation.
All percussionists need to learn how to execute smooth rolls, because all percussion instruments use them for sustained tones. Everyone should master the snare drum roll, which is perhaps the hardest. Notice that each hand strikes two even taps and then alternates with the other. Practice slowly. Work for eveness of stroke. Speed will come later with practice.

If exercise four is easy for you, you are ready to go from an open roll to a closed roll.

The roll is usually written: ₪ Sometimes it appears: ₪ The roll lasts as long as the note value, and the roll with a single stroke only when the notation indicates it. unità or ₪ End with a stroke. ₪ ₪ Never add a final stroke.
The five stroke roll, which is the shortest roll in drum music, sounds like "da da da da da", with the accent on the last "da". The roll may begin with either hand, but must start and end with the same stick.

The seven stroke roll always begins with the left stick and ends with the right. Compare the seven stroke roll with the five stroke roll. Let both your ear and your eye distinguish the difference.

The nine stroke roll, like the five stroke roll, may start with either hand, but must begin and end with the same hand. These two rolls are sometimes referred to as "hand to hand rolls." Make certain the strokes are even before you work for speed.
TYMPANI

Two kettles are used in tympani playing. The larger kettle is to the left of the player and the smaller is to the right.

There are three types of tympani: the hand tympani, which have screws which adjust to change the pitch; the crank tympani, which have a hand crank for changing the pitch; and the pedal tympani, which have a foot pedal for changing the pitch. All tympani have hand screws for the purpose of equalizing the tension on the head. The weather to some extent controls the tension on the head. On warm dry days the heads tend to shrink and the tension increases. You will discover that the pitch is higher. On damp days the heads stretch and the tension is lowered. Likewise the pitch is lowered.

The tympani are tuned in harmony with bass instruments. Because the range of the tympani is very low, you will have to train your ear to distinguish the pitches in the bass clef. Below is a chart giving the notes playable on the tympani. Notice the notes are written in the bass clef. Study the names of the lines and spaces carefully so you won't confuse bass clef notes with G clef notes.
Notice that some notes may be played on either kettle. This makes tuning easier.

To tune the hand tympani quickly, turn two screws in the same direction at the same time. Take the two screws closest to you first. Then work in opposite directions, taking the opposite screws at the sides. The two screws farthest away from you will be turned last. In three moves you should have the tympani tuned. Remember, always turn the screws an equal amount in the same direction. Turn the screws clockwise to tune for a higher pitch and counter-clockwise for a lower pitch.

The crank tympani should have a regular check on the hand tuning screws to make certain that the tension is equal. Extreme weather changes will require adjustment of the hand screws. For regular tuning the crank will do a much quicker job than the hand screws. You will have to learn how much adjustment is necessary to raise and lower the tones. Turning the crank clockwise raises the tone; turning it counter-clockwise lowers the tone.

The pedal tympani should first be adjusted so that the large kettle sounds low F when the heel of the foot pedal is on the floor. The small kettle should sound high F when the toe of the foot pedal is down as far as it will go. If neither kettle sounds its proper F, adjust the hand screws until the kettle is in tune to its F.

After the pedal tympani are adjusted, the foot pedal does
the actual tuning. Pressing the toe of the pedal causes tension on the head and the tone will rise. Pressing the heel of the pedal releases the tension on the head and the tone will lower. Practice will teach you how much pressure is necessary to raise and lower the tone.

Tuning is done by flipping the head with the tip of the third finger. Place the finger tip on the head and quickly bring it forward with a flip. It will be necessary to bend over the kettle in order to hear the tone if the band or orchestra is playing. Practice flipping the head with either hand. Do not form the habit of tuning with the sticks.

Both sticks are held in the same manner. Take the sticks in the right hand, gripping it with the thumb and index finger. The thumb should be directly on top of the stick. The other three fingers close loosely, but only the third assists the thumb and index fingers in making a stroke. Raise the stick to shoulder height. Bring it down, striking the head about three and one-half inches from the edge of the kettle towards the center. As you bring one stick down, the other moves up to shoulder height. In other words, the sticks alternate. Make certain that both sticks move to the same height with the same speed. Check the motion to see that it is straight up and down, not sideways. Make the strokes even in distance, time, and strength, then work for speed. As you practice your strokes, draw the tone from the head. You do not merely beat the drum.
Strike an F on the piano or bells. Hum the tone, then tune the large kettle to that pitch. Naturally, the kettle will sound in a different register than the one in which you sing. If you lose the pitch before you have the kettle tuned, strike the F again and try once more. Do not have some one hold the pitch for you. You must train your ear to hear or imagine pitches long after they have been sounded. Once you have tuned to the low F on the large kettle, think or hum "do" up to "sol". It may be necessary at first for you to think "do, re, mi, fa, sol" or "do, mi, sol". After you have had a little practice thinking skips such as the "do - sol", you should be able to hum the two necessary pitches at once. As soon as your ear hears "do, sol", tune the small kettle to "sol". Check the "sol" with the large kettle tone which is "do". Now your pitches should be F or "do" on the large kettle and C or "sol" on the small kettle.

Now call the C of the small kettle "do" and think down to "sol". Hum the "sol" and tune the large kettle to match that pitch. Your small kettle will sound G or "sol".

Work on the following tuning exercises until your ear becomes accustomed to hearing the intervals accurately.