

Teacher's Guide

Clarinet

Selmer®

by the late Nilo Hovey



Nilo W. Hovey

The late Nilo W. Hovey was actively engaged in the school band movement since 1925. From 1926 to 1944 he was Director of School Instrumental Music in the Hammond, Indiana, public schools. From 1944 to 1957 he was Chairman of the Music Education Department and Director of the Concert Band at Butler University, Indianapolis, Indiana. During this period he was the recipient of the J.I. Holcomb award for his contribution to the advancement of the University and the Arthur W. Baxter award for superior teaching.

Hovey served as lecturer, clinician, adjudicator and guest conductor in all sections of the United States and in Ontario, Canada. In the latter capacity he appeared with the United States Navy Band, the United States Army Band, the Canadian Air Force Band, and many Intercollegiate and All-State High School Bands.

Numerous instrumental methods and books of instructional material written or edited by Hovey are widely used in the schools of the United States and Canada.

Hovey was an active member of the American Bandmasters Association for over twenty years and served as its President in 1970-71. He was President of the Music Industry Council in 1962-64. He was an honorary member of the Canadian Bandmasters Association, of Kappa Kappa Psi and Phi Beta Mu. Hovey was also a member of Phi Kappa Phi, Honorary scholastic fraternity, Phi Delta Kappa, fraternity of men in education, and Phi Mu Alpha (Sinfonia).

Publications

The following Clarinet materials have been written or edited by Mr. Hovey and are published by Belwin, Inc., Rockville Centre, Long Island, New York:

BELWIN ELEMENTARY BAND METHOD, by Fred Weber, edited by Nilo Hovey (for Clarinets in heterogeneous classes of wind instruments)

BELWIN CLARINET METHOD, BOOK I, by Kenneth Gekeler, edited by Nilo Hovey (beginners method for individual or class instruction)

FIRST BOOK OF PRACTICAL STUDIES FOR CLARINET, by Nilo Hovey (Supplementary studies for Book I, above. For individual or class instruction)

BELWIN CLARINET METHOD, BOOK II, by Kenneth Gekeler, edited by Nilo Hovey (follow-up to Book I, above)

SECOND BOOK OF PRACTICAL STUDIES FOR CLARINET, by Nilo Hovey (Supplementary studies for any method of intermediate difficulty. For individual or class instruction)

BELWIN CLARINET METHOD, BOOK III, by Kenneth Gekeler, edited by Nilo Hovey (follow up to Book II, above)

DAILY TECHNICAL EXERCISES FOR CLARINET, by Nilo Hovey (Special compilation of the works of J. Albert and G. Pares for technical development of the individual or class)

SECTION STUDIES FOR B \flat CLARINETS, by Nilo Hovey (Exercises stressing tone, intonation (ear-training), blend, balance, use of special fingerings and technique-for the Clarinet section of the school band)

EASY SOLOS WITH PIANO ACCOMPANIMENT (This list is arranged in approximate order of difficulty, from very easy to moderately easy)

Solo Semplice (Hovey-Leonard)

Il Primo Canto (Hovey-Leonard)

Aria Cantando (Hovey-Leonard)

Andante and Waltz (Hovey-Leonard)

Valse Grazioso (Hovey-Leonard)

Song of Spring (Hovey-Leonard)

Contradanse (arr. Hovey-Leonard)

Chanson Moderne (Hovey-Leonard)

Berceuse (Godard, arr. Hovey-Leonard)

A Scottish Air (arr. Hovey-Leonard)

Caprice (Hovey-Leonard)

Clouds in Summer (Hovey-Leonard)

Theme and Variations (arr. Hovey-Leonard)

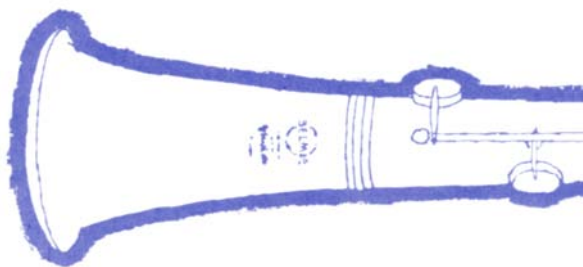
Gypsy Moods (Hovey-Leonard)

Carnival of Venice (arr. Hovey-Leonard)

Coppelia Waltz (Delibes, arr. Hovey-Leonard)

Bagatelle (Hovey-Leonard)

La Czarine (Ganne, arr. Hovey-Leonard)



Introduction

Inherent in each of the wind instruments are certain characteristics which create problems of tone production, intonation, range or technique. The clarinet is no exception. Certain factors in acoustical design peculiar to the clarinet seem to defy its player to produce a fine quality of tone, in tune, and in all registers. An understanding of these factors is of considerable advantage to the instrumental teacher who accepts the responsibility of guiding his clarinetists toward maximum achievement.

The clarinet is the only instrument which overblows a twelfth. This necessitates connecting mechanism to bridge the gap between the chalumeau and clarion registers. To simplify problems of facility, especially around the throat register, the position of the hands and the action of the fingers must receive special attentions.

The clarinet has but one vent (register hole) which serves 22 notes in the normal range of the instrument. No one can deny the shape, size, and placement of this vent is at best a compromise, for in addition to its function of venting all notes of the clarion and *altissimo* registers, it serves in the production of the throat B \flat , generally considered one of the poorest notes on the instrument. Adjustment of the oral cavity, embouchure and/or breath are needed to overcome this necessary deficiency.

The clarinet is possibly the only wind instrument which produces its best quality of tone at, or near, the “top” of the pitch. Thus, a clarinetist with correct embouchure can do very little toward favoring the pitch upward; he can only favor downward, and that to a limited degree without distortion of tone. So we must accept the fact that the clarinet is one of the least flexible instruments in regard to adjustment of the intonation of single tones.

One of the most singular characteristics of the clarinet is that of all instruments it allows least deviation of general pitch without distortion of its general scale. This peculiarity must be considered when setting the pitch level of the band or orchestra. Regarding this fact, Rendall has written:

“The player cannot, like the flautist or oboist, vary his pitch appreciably, without devastating effects upon intonation and embouchure. One vibration, or possibly two, up or down is all that can be contrived with safety. A clarinet tuned to *diapason normal* cannot possibly play at 439 or 440, nor can an instrument tuned to 440 be forced up to 444 or 445. A considerable shortening of the tube with drastic reboring and relocation of the tone-holes would be necessary to bridge even this small lacuna in pitch. What, then, is the remedy? Surely to impress two things upon conductors. Firstly, that the clarinet must take over the hereditary office of the oboe in tuning the orchestra by virtue of its immutability and secondly, that the pitch once given should be maintained at a perfectly uniform level. But unfortunately conductors look for brilliance in their orchestras, and are not inclined to sympathize too readily with the troubles of clarinetists.”*

Considering these eccentricities of the clarinet, it is almost impossible to over emphasize the importance of the early instruction of the beginning student. Habits formed during the initial experiences may be correct or incorrect, but in either case they are likely to become

*Rendall, F. Geoffrey, *The Clarinet*, p. 51. New York. Philosophical Library, Inc. 1954

more or less permanently infused in the young player's whole concept of performance. The teacher is the key. He must not only be persistent within the bounds of student interest, but he must also exert a positive influence on the attitude and desire of the student. The slogan "make haste slowly" has no better application than to the teaching of embryo musicians.

The practice of starting beginners in heterogeneous classes has become almost universal, and there are obvious advantages in this method. If these class procedures can be supplemented with some individual help, however, the results are certain to justify the investment of a little extra time. If this is not possible, a few supplemental lessons in small segregated classes would also be of value.

The possible contribution of good private teachers must always be considered. The excellence of many of the finest school bands is due to a combination of class teaching in which ensemble techniques are stressed, and the work of the private teacher who is a specialist on a given instrument.

In view of the importance of a good beginning, it is the purpose of this booklet to describe correct procedures in teaching the beginning clarinetist. Even though the emphasis is on the early stages of playing, much of the advice presented can be used to remedy some of the common faults of students at the intermediate level.

I. Selecting Equipment

(a) Instrument

One of the first requirements for acceptable performance on the clarinet is good equipment, including the instrument, the mouthpiece and the reed. Considerable danger is hidden in the ill-advised but often-quoted phrase, "it's good enough for the beginner." The beginner's instrument need not be of professional quality, but it must be as well in tune, it must permit the production of a good tone, and it must be constructed to withstand inexperienced handling.

Probably a large number of students have discontinued clarinet study because of discouragement caused by inferior equipment, and probably many more do not progress satisfactorily for the same reason. The beginning

student is not capable of appraising anything but the appearance of an instrument; neither is the average parent. Both are more likely to be influenced by an attractive case than any other factor! The school instrumental teacher must be qualified to advise students and parents on selection of equipment, and his advice should be based principally on intonation, tone quality and durability.

Unfortunately, some misconceptions exist regarding the materials of which clarinets are constructed. While it is true that top-quality artist instruments are made of wood, it is a fallacy to believe that any wood instrument is better than any constructed of plastic. Tone quality may vary slightly with the material of which the body is constructed, but these differences are minor compared with the features of basic acoustical design.* Considering the stability and durability of thermo plastic, it may be said with certainty that a properly designed clarinet of this material is a highly satisfactory instrument for the young student, and will be so well past the beginner stage.

(b) Mouthpiece

A good mouthpiece is of greatest importance. Every clarinetist knows that the playing qualities of the finest instrument will be ruined by use of an inferior mouthpiece. Tone, intonation and response are partially dependent on measurements of bore, throat and facing. Tip opening and length of facing, while important, provide insufficient evidence that a particular mouthpiece is a fine one, as two mouthpieces may be identical in tip and length measurements, and yet vary considerably in contour of the facing curve. Internal dimensions are also extremely important in matters of tone production, intonation and response.

Hard rubber, glass and plastic are used in the construction of most clarinet mouthpieces today. Again, the material is of less importance than the basic design.

Because of wide differences in physical characteristics such as the musculature surrounding the mouth, oral

*Many impartial tests have been conducted which show that expert performers cannot consistently differentiate between the tone of wood and plastic clarinets.

cavity, teeth, lips, etc., it is impossible to recommend one mouthpiece which will suit every individual. To confirm this statement one need only investigate the wide variety of facings used by the finest professional clarinetists.

One of the most effective solutions to the mouthpiece problem is school ownership of four or five different models to be available for student trial. In selecting the facings, considerable care should be exercised to avoid extremes in length and tip opening. A student who is in obvious need of a better mouthpiece should try each one for a few days, with *different reeds*. When the most suitable facing is found, the student simply purchases a duplicate. (Frequently a mouthpiece is condemned on the basis of a brief trial with a single reed, which, in spite of working well on one mouthpiece, does not fit the facing of the mouthpiece being considered.)

(c) Reed

Just as no instrument will play properly with a poor mouthpiece, no mouthpiece will give good results with a poor reed. Visible characteristics of a reed will rarely provide more than an approximation of its playing qualities. Even the manufacturer's numbered grade (2, 2 ½, 3, etc.) will frequently be misleading, because of the way the reed responds on a particular mouthpiece. Sometimes the first appraisal of a reed is not accurate, and consequently no reed should be discarded until it has had two or three trials. Students should be encouraged to purchase more than one reed at a time; four would be good, a box of twenty-five better.

The serviceable life of a reed is limited. Many inexperienced players use a reed until it is split or chipped, and without regard for the quality of tone it is producing. By alternating use of about four reeds, and by taking proper care of them while not in use, the student will get much better results at no greater cost.

A reed which is too soft will not permit the normal "grip" essential to proper clarinet embouchure. Other characteristics include a thin, reedy tone quality, flatness in

the high register, and/or the tendency to close against the mouthpiece around high A, B or C above the staff, thus stopping the vibration and production of tone. The last fault will be especially evident near the climax of a well supported *crescendo*.

Conversely, a reed which is too heavy will require more than normal lip tension to produce and sustain the tone. This will result in early fatigue in the muscles surrounding the mouth, and possibly soreness on the inside of the lower lip. The tone quality produced by an overly stiff reed will be hard and brittle. *Pianissimo* attacks will be noticeably difficult with a reed that is too heavy.

A suitable reed-mouthpiece combination will permit the production of a tone that is clear, compact, centered, and characteristic of the instrument, provided the physical aspects of playing subsequently described are given the necessary attention.

II. Forming the Embouchure

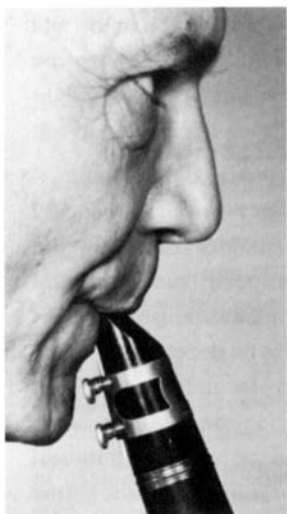
The embouchure described here is recommended by a high percentage of the best teachers today. There is no intent to disapprove any deviation which permits equally satisfactory results.

The lower lip is stretched rather firmly over the lower teeth. Only a part of the red portion of the lip is turned in. In fact, about half of the red portion should show externally. Many students turn too much lower lip under, thus contacting too much of the reed to allow proper vibration.

The upper teeth rest lightly on the top of the mouthpiece, approximately $\frac{1}{2}$ inch from the tip. This distance will be subject to minor adjustments later, due to differences in mouthpiece facings and physical differences among students. The head is held upright, and the mouthpiece is inserted in the mouth at an angle approximately 30 degrees from an imaginary vertical line.

Both lips are drawn firmly around the mouthpiece, exerting a steady grip which controls the vibration of the reed. Note that control of reed vibration is a muscular action. Excessive biting action of the teeth will impede reed vibration, resulting in a pinched tone, or none at all.

There should be a positive feeling of pulling the chin downward, so that the skin is held firmly against the bony structure. Some teachers call this “pointing the chin” and others describe it as a “flat” chin. Wrinkling or bunching of the chin is usually evidence that the wrong muscles are active. The corners of the mouth are turned upward slightly, but this must be accomplished without stretching the mouth laterally.



III. Reed Preparation and Placement

The reed should be moistened by holding it in the mouth until the thin tip is perfectly flat. If the tip doesn't flatten out properly after soaking for a short time, it should be held against the flat side of the mouthpiece and pressed firmly with the thumb until the ruffles in the tip have disappeared.

Beginning students should place the ligature on the mouthpiece, with the screws loosened slightly, before attempting to place the reed in playing position. Doing this may save many reeds which might otherwise be ruined by snagging with the ligature.

Now the student should slip the thick end of the moistened reed under the ligature from above, locating the tip of the reed even with the tip of the mouthpiece.* Before tightening the ligature screws, he should check the lateral position of the heel (thick end) of the reed. It should overlap the flat side of the mouthpiece an equal amount on both sides.

Next, locate the ligature at the lines marked on the mouthpiece and tighten the screws just enough to keep them from vibrating. Pulling the screws too tight will warp the reed, and may, over a period of time, warp the mouthpiece.

IV. Producing the First Sounds

In teaching the student to produce the first sounds, I highly recommended that the student use only the mouthpiece, with the reed properly prepared and mounted. This procedure will eliminate problems of holding the instrument, placing the finger, etc., and allow maximum concentration on formation of the embouchure.

The student is instructed to place the mouthpiece in playing position, to set the embouchure, and to start blowing with a steady stream of air. Neither the teacher nor the student should be concerned if the first attempts do not produce a sound, or if a tone of inferior quality is emitted. On subsequent trials, the grip should be increased and the air column “speeded up.” At this point, we are attempting to produce a high C, concert pitch, with a steady, controlled tone.

If no tone is produced, the student should make certain that the tongue is not touching the reed, preventing reed vibration. Then he should try taking a little more of the mouthpiece in the mouth; sometimes an additional sixteenth of an inch will get the desired result. If the tone produced is flat in pitch, the student should (a) grip a little more firmly, (b) add to the speed of the air column, or (c)

*Later on, as the student becomes more sensitive to reed response, he will find that a reed which tends toward the soft side should be placed slightly higher on the mouthpiece (about $\frac{1}{16}$ ”) and a reed that tends to be heavy should be placed slightly lower.

take a little more mouthpiece in the mouth. If the sound produced is an overtone above high C and is uncontrolled, it is possible that too much of the mouthpiece is in the mouth. In this case, the student should try a shorter “bite.”

The amount of time that can be spent on these preliminary instructions will depend, to a large degree, on the patience of the student and his ability to concentrate. Admittedly, he is eager to play the instrument as he has seen others play it, to perform a simple melody, and, in fact, to take his place in the band. The teacher must make a careful analysis of the situation and attempt to get the highest achievement possible without loss of interest on the part of the student.

V. Assembly of the Instrument

A little careful preparation used in assembling the instrument will avoid damage to the mechanism. The corks on a new instrument may appear to be too thick, making the problem of assembly even more difficult for the beginner, but it must be remembered that thinner corks would become compressed more quickly, soon resulting in a loose fit. All cork joints should be lubricated with a small amount of cork grease before the instrument is first assembled.

First, place the barrel on the upper joint with a turning motion, using care not to grasp the key work at the top of the upper joint. Next, place the bell on the lower joint in the same manner. Now put the upper and lower joints together. Even though most clarinets are now equipped with some device which prevents jamming of the connecting mechanism (usually called “bridge” or “lap” keys), it is a good idea to have the student close the D ring (second from the top) as the tenon of the upper joint is inserted in the receiver of the lower joint with a slight turning motion.

The mouthpiece may now be turned into the barrel-joint. In the beginning, it is probably best to do this before the reed and ligature are in position so the placement of the reed is not disturbed.

VI. Hand Position - Finger Action

Correct position of the hands is the first step in laying the foundation for smooth technique. Next to embouchure, this important aspect of playing is probably neglected more than any other. A good hand position permits rapid execution in any key and any note combination with minimum motion. Early attention to location and angle of the thumbs and index fingers will greatly simplify the problem.



The weight of the instrument is supported mainly by the right thumb. The side of the thumb touches the thumb rest near the base of the thumb nail. Many students place the thumb too far under the rest. This results in a poor position for the other digits of the right hand.

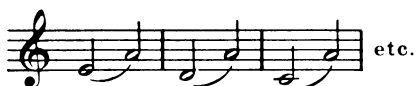
The index finger of the right hand, curved slightly at each joint, points downward to the B \flat - F ring (top ring of lower joint). The second and third fingers assume a similar position on their respective rings. The little finger is virtually straight as it contacts the F-C and A \flat -E \flat keys. The student should be cautioned against two common faults: (1) "riding" the rod that connects the finger rings, and (2) hooking the side of the index finger under the side E \flat -B \flat key.

The position of the left hand is possibly even more important than that of the right, because this hand controls the somewhat awkward throat register and its connection with the register change. Again, the key to proper position lies in the thumb and index finger.

The left thumb operates the thumb ring, overlapping it slightly to be in close contact with the register key. (The thumb should not shift its position to open the register key. Minimum motion of the first joint of the thumb must accomplish this.) the angle of the thumb is approximately thirty degrees below horizontal in relation to the body of the instrument. Upward skips of twelfths can be used to establish correct position and action of the left thumb:

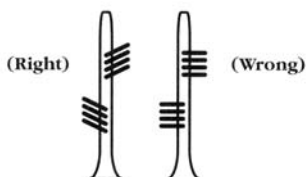


The index finger, curved slightly at each joint, points downward to the E-B ring (top ring of upper joint). The first joint of this finger is in close contact with the A key, and the second joint is barely above the A \flat key. (The left hand should not shift its position in operating the A and A \flat keys.) Exercises similar to the following can be used to encourage minimum motion of the index finger:



The second finger assumes a similar position on the D-A ring, as does the third finger on the C-G hole. The little finger is virtually straight as it contacts the E-B and F#-C# keys.

The student's attention should be called to the fact that none of the fingers is perpendicular to the body of the instrument. This is especially important, for a perpendicular position of any finger necessitates excessive motion. A simple sketch on the student's assignment sheet or in the instruction book will serve as a reminder.



The natural pads of the fingers (not the fingertips) are used to close the holes. Most teachers prefer a quick, precise action in raising and lowering the fingers, but the fingers must not be lifted too far above the holes or keys.

VII. First Exercises with the Instrument and First use of the Tongue

Most modern elementary methods for clarinet use E, D and C at the bottom of the staff as introductory notes. This is good because the fingers which are closed on these notes also provide a firm hold on the instrument. Delaying the introduction of throat F, G and A for a few lessons may help to avoid bad positioning of the left hand as well as incorrect action in operating the A key.

The stage at which tonguing should be introduced is debatable. Some teachers insist that the student tongue the very first sound produced with the mouthpiece and reed. Others prefer to postpone the tonguing problem until tone production is reasonably well under control. Both views may be based on logical reasons. Perhaps the most important factor in teaching correct tonguing, however, is that the student should not be burdened with

too many other problems at the time tonguing is introduced.

The most common errors in tonguing are (1) motion of the jaw or muscles surrounding the mouth, (2) pushing the tongue too hard against the reed prior to the attack, and (3) moving the tongue too far. Most of these mistakes will be avoided if earliest experiences in tonguing are done in *legato* style.

In *legato* tonguing, a point on the top of the tongue and near its tip contacts the under side of the reed near its tip. On the initial attack, the tongue is retracted from the reed as the air column starts. Successive attacks are accomplished in a “doodoodoo” fashion, the tongue touching the reed lightly on the consonants, with a steady and continuous air column behind the tone. The breathing apparatus functions *only once* for succession of tones, and the tongue operates as a small valve which briefly interrupts the vibration of the reed.

When the student gains reasonable control of the tongue action on repeated notes such as:



He should attempt *legato* tonguing of simple intervals, with the aim of coordinating the tongue and fingers:



and



The logical stage beyond this would involve slightly wider intervals:



Such exercises may be used as a supplement to any standard clarinet method and may even be given by rote before the student is introduced to the note values involved.

Opinions vary considerably on the choice of syllables used to express the function of the tongue as related to the attack. Some examples are “lah”, “dah”, “tah”, “luh”, “duh”, “tuh”, “loo”, “doo”, “too”, “dee”, and “tee”. Two factors are important here - (1) the choice of a consonant (which is associated with the breath in starting the tone) will be determined by the sharpness desired in the attack, and (2) the choice of the vowel sound (which affects the size and shape of the oral cavity) will be determined by tone quality, intonation, and to some extent by the range in which the passage in question is written.

Correct methods of stopping the tone (usually called “release”) may be introduced at this point. In early instruction, students are usually taught to stop the tone by stopping the breath. This applies to all final notes before inhaling:



And notes which are followed by rests:



It is important that the embouchure remain firm until the tone stops. Otherwise the release will be accompanied by a disagreeable dip in pitch and quality.

As the student progresses to more advanced studies employing rapid *staccato*, the need for a different type of release will become apparent. In this method, the tone is actually stopped with the tongue. Perhaps it would be better pedagogy to say that the same motion of the tongue that starts the second note also stops the first. In the passage below this type of release would be used on all notes except the quarters:



Later, the degree of detachment will be determined by the length of time the tongue remains on the reed. Thus, assuming a lot of conscientious practice, a crisp, even *staccato* can be developed in time.

VIII. Preparing the Register Change

Sometime prior to crossing the registers by stepwise motion, the student should be started on the following routine, which will greatly simplify the problem when it is encountered. The routine described here need not interfere with the procedures used in any instruction book but may be used to supplement any method currently published.

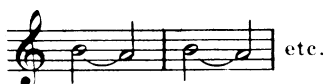
First step. When the student has gained good control of the tone down to the lowest written E, he should practice slurring the interval of a twelfth from low E to B natural in the staff:



The action of the left thumb should be checked carefully at this time. (See page 11)

Second step. When the third line B natural is under control, the student should practice rocking the index finger of the left hand against the A key, opening this key *without uncovering the E-B hole* (top ring, left hand.) The purpose of this exercise is to develop independence of action of the first finger of the left hand. This exercise will seem quite awkward, so the motion should be practiced slowly at first and the speed increased as experience is gained. (Note: the pitch produced by the B fingering with the A key opened will still be B natural, but the tone quality and intonation will vary slightly.)

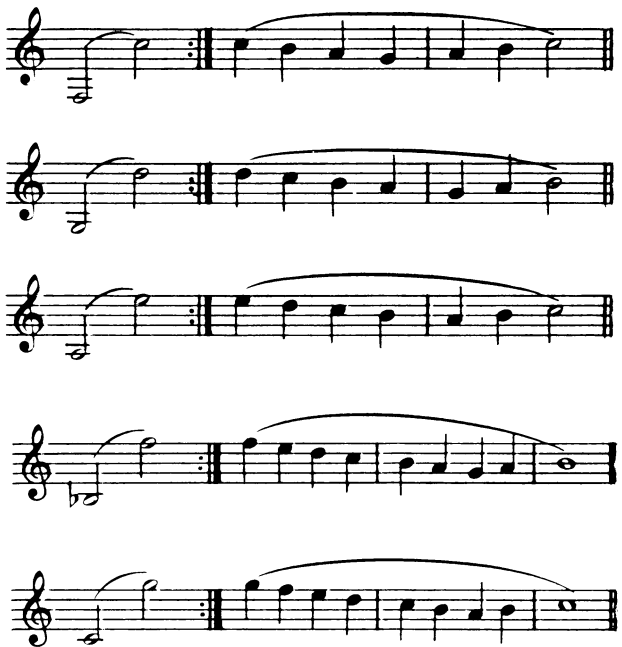
Third step. When the motion described above can be made with reasonable facility, the student should practice slurring from third line B to throat A, using the same finger action described above, except that the left thumb and first three fingers of the left hand are removed from their respective holes on the A. Note that the little finger of the left hand and all fingers on the right hand remain on.



Fourth step. Now the above action is reversed, slurring B-A-B-A-B, and later, B-A-G-A-B, etc., while keeping the little finger of the left hand and all fingers of the right hand on. The principal objective is minimum motion.



Fifth step. Now additional notes of the clarion register are introduced and included in the pattern. Note that at this stage, the first approach to the “break” is from *above*.



IX. Fingerings

Smooth and accurate technique on the clarinet demands knowledge of more alternate fingerings than on any instrument with the possible exception of bassoon. One set of fingerings will simply not suffice on the clarinet; indeed, not less than twenty-six alternate fingerings are absolutely essential to fluent technical performance. As the student begins to progress beyond the elementary stage, the instructor must choose between two methods of introducing the alternate fingerings.

Some teachers show all, or most, of the fingerings for a given note when that note is introduced. For example, on the student's initial use of first space F#, he learns that it can be played with the first finger of the left hand without the thumb, or with the thumb and two side keys.

The other method is to show alternate fingerings in connection with their most common use, and as they occur in the natural course of study. With this plan, the first fingering for F# mentioned above would be introduced in connection with the G scale, and the second fingering in connection with the chromatic scale.

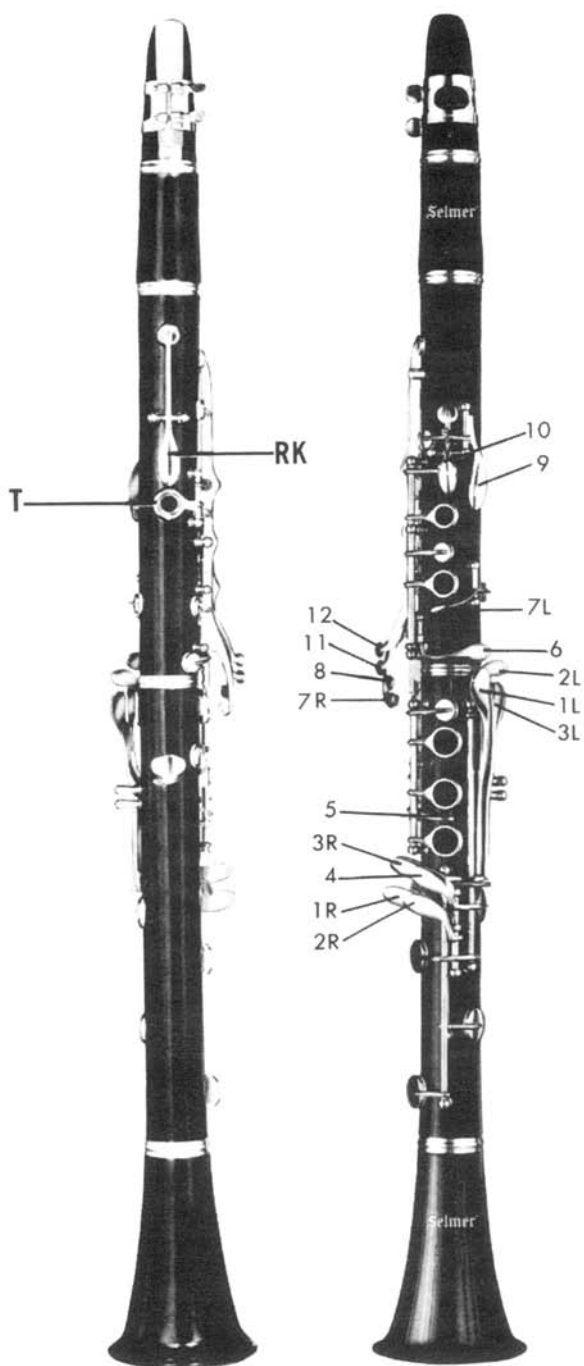
In the writer's experience it seems that the student's retention is greater if an alternate fingering is identified with a specific situation, even though that fingering may be used in more than one combination of notes. Thus, the high B \flat produced with the first finger of each hand and the thumb on the thumb ring and register key is introduced with the B \flat Major *arpeggio* and is called the "*arpeggio* fingering." The low B natural produced with the left thumb on the thumb ring, four fingers and the key between the rings of the lower joint is introduced with the chromatic scale and is called "the chromatic fingering."

Some alternate fingerings are a matter of individual preference and some are based on tuning eccentricities of a particular instrument. No clarinet chart shows all fingering possibilities. Few of the most complete charts teach the student *when* to use a particular fingering, but in this booklet (pages 19 to 23) various note combinations are given to illustrate the use of the most common alternate fingerings. The student who is inclined to use a single fingering for each note in the clarinet range can improve his knowledge and use of alternate fingerings by conscientious practice of these combinations.

The picture of the instrument (page 18) will assist the student in locating the keys indicated in the fingering diagram on subsequent pages.

For reasons of space, a complete fingering chart is not included in this booklet. You may, however, obtain a free sample chart which gives most commonly used regular and trill fingerings by writing to Selmer. Ask for the Selmer Chart of Regular and Trill Fingerings for B \flat Clarinet (AV4283). In quantities, \$0.25 each.

Diagram of Instrument



★ For upper notes, add register-key (RK)
to indicated fingering

1. ★

Fingerings: 2R, 1L, 8L, 2R

2. ★

Fingerings: 2R, 1L, 2R, 2R

3. ★


Fingerings: 1R, 2L, 4, 2L

4. ★


Fingerings: 1L, 3R, 3R

5. ★

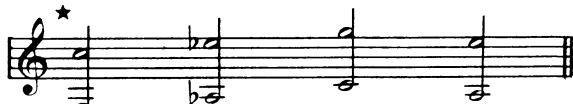
Fingerings: 1R, 8L, 4, 8L

6. 


T ● ● — ● ● 1L	T ● ● — ● ● 4	T ● ● — ● ○ ○	T ● ● — ● ● 4
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7. 


T ● ● — ● ● 2R	T ● ● — ● ● 3L	T ● ● — ● ● 4	T ● ● — ● ● 3L
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8. 

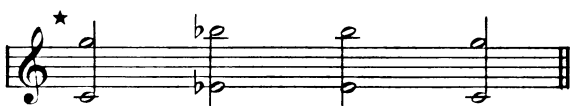
T ● ● — ● ● 2L	T ● ● — ● ● 4	T ● ● — ● ○ ○	T ● ● — ● ● 4
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9. 

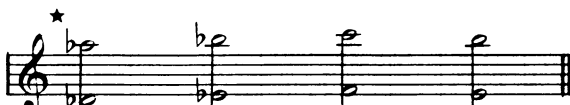
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10. 


T ● ● — ● ○	T ● ● — ● ○ ○	T ● ● — ● ○ 5	T ● ● — ● ○ ○
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11. 


T ●	T ●	T ●	T ●
●	●	●	●
●	7R ○	7R ○	●
○	○	○	○
○	○	○	○

12. 


T ●	T ●	T ○	T ●
●	●	○	●
6	7R ○	○	7R ○
○	○	○	○
○	○	○	○

13. 

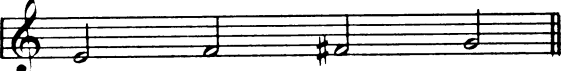
T ●	T ●	T ●	T ○
●	●	○	○
○	7L ○	○	○
○	○	○	○
○	○	○	○

14. 

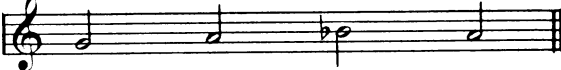
T ●	T ●	T ●	T ●
●	●	○	●
●	●	○	○
○	○	○	○
○	○	○	○

15. 

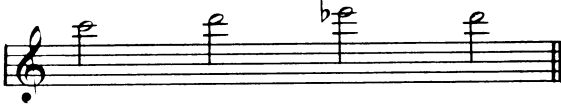
T ●	T ●	T ●	T ●
●	●	○	●
●	○	○	○
○	○	○	○
○	○	○	○

16. 

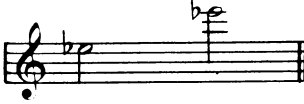
T ●	T ○	T ○	○
○	○	○	○
○	○	8	○
○	○	TR	○
○	○	○	○
○	○	○	○

17. 


○	10	10	10
○	○	○	○
○	○	11	○
○	○	○	○
○	○	○	○
○	○	○	○

18. 

T ○	T ○	T ○	T ○
○	●	●	●
○	○	○	○
○	○	○	○
○	4	4	4
○	○	5	○

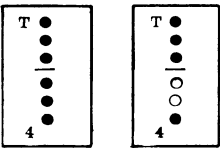
19. 

RK ●	RK ○
T ●	T ●
●	●
●	○
●	○
4	4

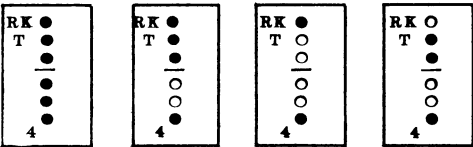
20. 

T ●	T ●
●	●
●	●
●	○
●	○

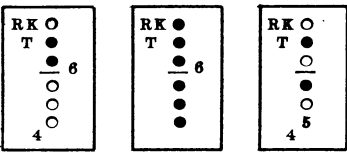
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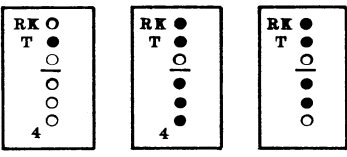
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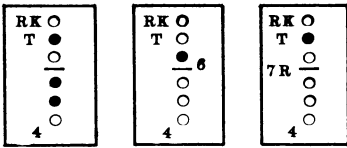
23.



24.



25.



X. Development of Technique

Inspection of clarinet solos and clarinet parts to band, orchestra and ensemble music will disclose that a high percentage of the technical problems are based on portions of scales, *arpeggios*, and the common interval patterns. This alone should provide sufficient incentive for the ambitious clarinet student to direct considerable effort toward mastery of the important fundamentals, but there is another good reason. Technical facility is one of the two essential qualifications of a competent sight-reader.

Part of each practice period should be spent on scales and *arpeggios*, with interval studies such as thirds, sixths and octaves added as the student gains in experience and assumes greater responsibility in his section.

This does not imply that technique should be stressed at the expense of other phases of performance, nor does it suggest that dexterity is synonymous with musicianship. It is a fact, however, that the student who has gained technical control of his instrument can give the major portion of his attention to the musical aspects of interpretation.

Some students need to be cautioned against sacrificing accuracy in their pursuit of speed. From this standpoint, the problems of the student clarinetist may be compared to those of the student typist. Careless practice often establishes, then strengthens, bad habits. A metronome can be a valuable aid to the young instrumentalist, but if one is not available the teacher must stress the importance of accuracy and encourage the student to allow speed to develop gradually.

Some students develop considerable facility in passages using scale-wise motion but are not equally proficient when skips are involved. This may indicate over-emphasis of scales and the need for more attention to *arpeggios* and interval studies in their various forms. A balanced study routine will be more productive than concentration on a single phase of technical development. The student clarinetist who has command of seven scales and *arpeggios*, for example, is probably better prepared to cope with everyday technical problems than one who knows the scales. Many auxiliary fingerings are encountered in

clarinetist who has command of seven scales and *arpeggios*, for example, is probably better prepared to cope with everyday technical problems than one who knows the scales. Many auxiliary fingerings are encountered in arpeggios and thirds which do not appear in the scales.*

A variety of articulations should be included in the student's early routine so control of the tongue is developed and coordinated simultaneously with finger action. The complete slur should not be overlooked, for it contributes to precise finger action by exposing ragged intervals.

Much emphasis should be placed on evenness of tempo, volume and tone quality in the practice of all phases of technique.

XI. Intonation Problems

“Faulty intonation in woodwinds” is a criticism which is probably written more frequently by adjudicators than any other single comment. Often, this criticism is directed specifically to the clarinet section.

Intonation problems fall into four general categories: (1) mechanical-referring to the condition of the instrument, its parts and accessories, (2) physical - referring to embouchure and proper use of the breathing apparatus, (3) tuning procedures - referring to the method of setting the instrument or instruments to a pre-determined level of pitch, and (4) aural - referring to the important factor of careful listening.

Mechanical Factors

Assuming that the basic acoustical design of the clarinet is correct, the condition of the instrument is next in importance. Pads must “seat” properly, and when in an open position, they must have sufficient clearance above the tone holes to allow free passage of the air. Sometimes the thickness of cork bumpers needs adjustment to permit correct pad clearance. All tone holes, including the register vent, must be free of all obstruction.

* A sample copy of “*Major Scales, Arpeggios and Thirds*”, published by Selmer as a teaching aid, can be obtained free of charge by writing to Selmer, P.O. Box 310, Elkhart Indiana 46515. Alternate fingerings are indicated on all note combinations requiring them.

The bore and throat of the mouthpiece must be clean and the facing must be accurate. A facing or table distorted by warping will affect pitch and intonation adversely. The reed must be of correct strength in relation to the mouthpiece facing and the amount of grip exerted by the player. It must be remembered that the manufacturer's grading of reed is only relative. Many beginners use a reed that is too soft to allow correct embouchure; conversely, some moderately advanced students seem to get on a hard reed "kick." Either extreme affects intonation as well as tone quality.

Under normal circumstances, a standard barrel length should be used. Most clarinets will produce their best scale (i.e., be in tune with themselves) with the barrel all the way on, or pulled very slightly.

Finally, regarding the pitch of the instrument itself: no clarinet manufactured today is below A-440. If a student plays flat, the following points should be investigated in order - embouchure (including the length of "bite"), breath support, mouthpiece, reed strength. *Avoid shortening the barrel* unless these factors are found to be satisfactory and flatness still prevails.

Physical Factors

Correct embouchure is discussed on pages 6 and 7. If symptoms of out-of-tune playing seem to indicate faulty embouchure, however, it might be well for the teacher to check these elements of a correct embouchure:

- (1) A small portion of the lower lip is turned over the lower teeth.
- (2) Enough of the mouthpiece is in the mouth to let the reed vibrate freely.
- (3) The angle of the instrument is not more than 30 degrees from vertical.
- (4) The teeth do not bite the mouthpiece, but the lips grip firmly enough to control the vibration of the reed.
- (5) The flesh is drawn firmly against the bone structure of the chin. (Some teachers refer to this as a "flat" or "pointed" chin.)

(6) The corners of the mouth are turned up slightly.

(7) The right thumb exerts a slight upward pressure against the thumb rest.

In regard to use of the breath, sufficient push must be used to play each note “at the top of the pitch.” The fact that speed of reed vibration has a direct influence on pitch is sometimes ignored. The student should be able to produce a high C (concert pitch) with the mouthpiece and reed, and the resulting tone should be clear and steady in pitch.

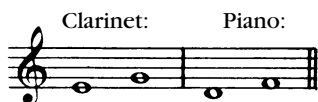
In a few instances of single notes that are faulty in pitch, the trouble may be found in use of incorrect fingerings. For example, some notes of the *altissimo* register may be flat without the A \flat -E \flat key. Conversely, the use of this key on high C# will invariably make the note too sharp.

Tuning Procedures **(Solo instrument to Piano)**

Tuning discrepancies between clarinet and piano are frequently due to the fact that the piano has not been properly tuned. Nevertheless, the clarinetist must meet the pitch level given by the accompanying instrument regardless of where the fault lies.

First, the soloist must be cautioned to have his instrument thoroughly warmed up before attempting to tune. If this is not done, the clarinet may be flat to the piano, but even if it is in tune at the start, its pitch may rise above that of the piano during the course of the performance.

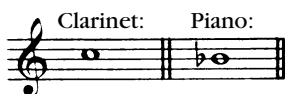
More frequently, however, the pitch of the piano will be below that of the clarinet. In this case, the clarinetist should check one or more of the throat notes first, and adjust the barrel accordingly. For example, the E-G of the



clarinet may be compared to the D-F of the piano:

It must always be remembered that any deviation of barrel length will have a much greater effect on throat notes than on the notes of the lower joint, and also, that the clarinetist

can favor sharp notes downward much easier than he can favor flat notes upward. The tuning process, then, must

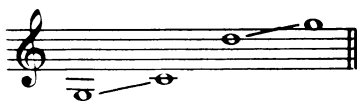


never result in the throat notes being flat.

Next, the C of the clarinet is compared to the corresponding B \flat of the piano:

It is not likely that the C will be flat, but if it is, the barrel must be put back on a small amount, although it will probably not be necessary to return it to a fully closed position. If the clarinet C is sharp, the difference may be resolved by pulling slightly at the *middle* joint. One-half to one and one-half millimeters will usually be sufficient to solve the problem. It should be noted that this procedure will not have an adverse effect on the throat notes which have already been tuned at the barrel.

There are two exceptions to the above method of changing the effective length of the tube at the middle. A



clarinet with the articulated G \sharp mechanism cannot be adjusted at the middle, nor can one which has any flat notes between G and C of the low register or D and G of the clarion register:

A clarinet tuned according to the above method will be about as close to the pre-established pitch as it is possible to adjust it, for both the long and short portions of the effective tube length have been considered. This is not a guarantee that every note will be in perfect tune! The instrument is *ready to be played in tune* just as a violin which has had its four strings properly adjusted.

(Tuning the B \flat Clarinet Section)

The tuning methods for the section will be much the same as described above, except that the director must determine the pitch level at which the tuning is done. This level must be "within the reach" of all of the instruments

in the section without distortion of the scale of any instrument.

It is usually best to start with the 2nd line G, reconciling pitch differences by adjusting the barrel of the instrument. Any player who finds it necessary to pull the barrel during this process should next check the first line E. If the E is flat compared to the accepted G, the student should compromise by pushing the barrel in until the E-G interval sounds a good minor third. (The reason for this is that it is easier to favor the G downward than to favor the E up.)

Next, the 3rd space C should be checked against the accepted E. The student who is flat on this note must compromise by pushing the barrel in enough to make the E-C interval sound a good minor sixth. The student who is sharp on C may find it necessary to pull a little at the middle joint, but never to the extent of flattening the clarion register notes of the right hand. Exceptions to the procedure of pulling the middle joint are noted on page 28. Pulling the middle joint will not affect the G and E which have already been tuned.

Slow playing of unison and octave scales will likely disclose other minor deviations from the established pitch. Auxiliary fingerings and embouchure adjustments can remedy all but the most extreme discrepancies.

Aural Factors

Correction of mechanical and physical problems will improve most sections considerably, but beyond this point students must be taught to *listen*. Not all clarinetists are blessed with a high degree of pitch sensitivity, but all *can* make maximum use of their capacity to discriminate between good and bad intonation.

The material used for initial ear-training exercises should not make unusual technical or range demands on the students. Simple scales, chords, and *cantabile* style melodies, both unison and harmonized, will do much to encourage careful listening, and subsequently, the favoring that is necessary to attain purity of intonation*. Here the problem is much the same as training any instrumental ensemble, including the band and orchestra.

Students should frequently be asked to judge themselves and each other, and to avoid depending entirely on the teacher's evaluation and criticism.

* see Section Studies For B \flat Clarinets by Nilo Hovey, published by Belwin, Inc.

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A1510S2 A - .563" bore, same as B1510S2 except key of A.

B1510G - .574" bore, Grenadilla wood body, silver-plated keys.

A1510G - same as B1510G except key of A.

B1510R Recital B \flat - .563" bore, Grenadilla wood body, silver-plated keys.

B1510R Recital A - same as B1510R except key of A.

B1510R Prologue II B \flat - .570" bore, Grenadilla wood body, silver-plated keys

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CL220 - .573" bore, Grenadilla wood body, gold-plated keys.

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103 - .577" bore, Grenadilla wood body, nickel-plated keys.

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1425 - Selmer (USA) Resonite® E \flat Alto Clarinet

1430P - Selmer (USA) Resonite® B \flat Bass Clarinet

1440 - Selmer (USA) Resonite® EE \flat Contra-alto Clarinet

E15 - Selmer (Paris) E \flat Soprano Clarinet

E15R - Selmer (Paris) Recital E \flat Soprano Clarinet

D15 - Selmer (Paris) D Soprano Clarinet

C15-10S Selmer (Paris) C Soprano Clarinet

23-Selmer (Paris) A Basset Clarinet - range to low C

25-Selmer (Paris) F Basset Horn

22-Selmer (Paris) E \flat Alto Clarinet

35-Selmer (Paris) B \flat Bass Clarinet-19 keys, 7 covered finger holes (articulated G \sharp , E \flat -A \flat lever), range to low E \flat .

33-Selmer (Paris) B \flat Bass Clarinet-22 keys, 7 covered finger holes (articulated G \sharp , E \flat -A \flat lever), range to low C.

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