A METHOD OF SIMPLIFIED SCORING
FOR THE MARCHING BAND

A Thesis
Presented in Partial Fulfillment of the Requirements
for the Degree Master of Arts

By
Richard Wayne Heine, B.Sc. in Educ.
The Ohio State University
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Approved by:

[Signature]
Adviser
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INTRODUCTION

This thesis is presented with the sincere desire to provide the beginning arranger with the essential techniques of simplified scoring for the marching band. Its purpose is not the presentation of a complete and lengthy discourse on instrumentation. The subject of instruments, their history and usage, has already been exhaustively treated by outstanding musicians. The point to be emphasized here, however, is: effective, straightforward writing and scoring, even to the exclusion of many of the standard arranging techniques. Simplified scoring for the marching band is a relatively new technique, and, up to the time of the writing of this thesis, there has been no text published on this specific subject.

Any band director, at one time or another, must cope with the following problems:

1) Limited capabilities of his players, particularly under marching conditions.

2) Published music not immediately available or too difficult. (Too often the published arrangement is either 'watered down' for the amateur or so elaborated as to be beyond his reach.)
3) The necessity for program music where no arrangement is available.

4) The last and most vital is the element of time.

Any musician, experienced or not, knows that arranging is a time-consuming effort. For that matter, the band director is always working against time, especially during the football season when the band must function as an important part of the athletic program. The pressure of the half-time 'show', which is different each week, greatly limits the amount of time for actual music rehearsal. A simplified method of scoring should therefore be an essential part of the band director's knowledge and training.

To clarify further the intent of this thesis, it should be stated that the arranging style herein described is designed for outdoor use. While this style of arrangement could be utilized for indoor playing, it lacks the variety of color found in music arranged expressly for auditorium performance.

In addition to the fact that the arranger must use a predominance of strong voices when designing an arrangement for outdoor performance, he must also remember that an instrumentalist can play more effectively when sitting than when marching. It seems absurd that such a statement need be made, yet bands on parade will continually try to perform music that is difficult enough for them to play
when seated. A fact that has been overlooked by many arrangers of band music is that, in addition to playing an instrument, the player must watch yard lines and yard markers, occasionally dance or wave flags, keep the next formation in mind, and, still remember the music of the moment.

As music educators, we must admit that, with the exception of a few college bands, the quality of both the music and its arrangement has not kept pace with the other elements of showmanship. The band director, as well as the arranger, should not lose sight of the desired results of marching band music.

Some techniques and procedures, which have been tried and proven, are herewith presented.
CHAPTER I

TECHNICAL CONSIDERATIONS

For a better understanding of this method of simplified scoring, it is first necessary to establish the reasons that make such a score desirable. These technical considerations are not based on textbook knowledge so much as on practical experience obtained from actual scoring for marching bands. The very fact that countless directors have found that standard instrumentation and arranging practices often fail to give an adequate sound on the football field is reason enough for the method discussed in this thesis. The standard arrangement may 'sound' when performed indoors, but, on the football field, a divisi or sectional style of arranging does not have the necessary 'punch'. In addition, the music itself is no longer emphasized but rather the whole colorful picture that constitutes the 'show'. In this highly competitive field, the tendency has been in most cases directed towards more highly complicated formations and drills plus the assisting accouterments of spectacular uniforms. With the emphasis more and more directed towards showmanship, it is the conclusion of many music educators that the music itself has been swept into the background. What can be done to cope with this situation? Many directors of high school bands do
their own arranging during football season. Similarly, college or university marching bands use special arrangements. Yet many of those who have done their own arranging have gone in the wrong direction, practically speaking. Complicated scoring only adds difficulties to the band director's time-rushed program and usually exploits the more capable players, leaving the majority trailing along as best they can.

QUALITY AND PURPOSE

Briefly stated, the quality of marching band music should be acceptable to all levels of taste. In addition to this, the quality of the arranger's work is determined by his ability to employ musical materials in a clearly defined and effective manner. The arranger must realize fully the technical limitations of a marching band before he attempts any scoring at all. At the same time, he should also be aware of the basic considerations imposed on the music itself. The purpose of marching band music is to accompany, and, many times, to identify the formation or scene on the field. In consideration of a particular selection, the arranger must determine the nature of the instrumentation and the purpose for which these instruments will be used. Many music educators feel that the quality and purpose of marching band music is in direct conflict
with the educational philosophy of the school music program. On the other hand, it is entirely possible that the band director will win numerous friends and listeners if he will give them simple, effective and straightforward music on the football field.

**MEMORIZATION**

Many band directors have their players memorize the music to be used on the field. When memorization is demanded by the director, it enhances his demand if the music is so arranged that each part, regardless of importance, has sufficient musical interest to aid memorization. Too often the proper direction of a musical line is denied by the arranger in order to obtain a fuller, more exciting sound. The horizontal direction of all voices should follow the rules of elementary counterpoint. A good line will furnish the necessary musical interest. Strict adherence to the rules of resolution of all active tones is important. Awkward intervals, such as the augmented second or the augmented fourth, are easier to play than to sing, but should be avoided if at all possible. An awkward part is musically uninteresting, and is often the reason why a naturally musical player improvises. Further, the players will enjoy a singable line whether it be melody, countermelody or any other part. For example, the alto horn parts of the standard march are arranged large-
ly in the 'afterbeat' style, as follows:

1st & 2nd E♭ Alto Horns

\[ \text{Fig. 1} \]

It is suggested that the arranger sing the above parts, particularly at one of the faster tempos used in today's marching band. The short 'peck' produced adds a questionable rhythmic effect and is a total loss to the harmonic color. The elimination of afterbeats is not a new device, but should be mentioned here as a basic item in the simplified scoring technique. From the standpoint of memorization, Figure 1 has little musical interest and no individuality of line whatsoever. It could fit harmonically into a dozen different selections. The horn player with a musical ear could easily 'fake' his way through most selections. However, confusion results when two or more players undertake to improvise their own parts.

**RHYTHM SECTION**

The rhythm section of the marching band consists only of side (field) drums, bass drums and cymbals. Rhythmic impact is their only addition to the music. The real difficulty in playing the side drum while marching lies in the constant swinging about of the drum, thereby making it somewhat troublesome to contact correctly with the sticks.
A competent drummer, marching at a tempo of 140 or more, will find it hard to execute any roll that exceeds five strokes. Afterbeats, under the same conditions, are equally difficult for drummers to play accurately. Therefore, the rhythmic patterns employed by the arranger should be simple enough for a precise execution under marching conditions. A greater rhythmic impact plus added coherence is available from the side drums if their part is arranged to include the strong beats.

From the standpoint of memorization, the drummer does not have the advantage of a horizontal line to follow as do the woodwinds and brasses; he can only associate his part with what he hears. As a further consideration, a simple and effective method of scoring the drum part is to select a one-, two-, or four-measure rhythmic pattern and use it throughout the selection. Needless to say, it should enhance the melodic structure. Such a pattern can be easily memorized and will bind the drum section together. The arranger would do well to stand and mark time while conceiving the drum pattern. If the tempo is extremely fast (over 160), rolls, flams and drags should be used sparingly if not completely omitted. Cecil Forsyth states the following in his text: "In writing side drum parts, remember that the genius of the instrument is totally opposed to single detached notes. In fact, they should never be written. ...........practically any
rhythmic combinations which you can think of can be intel-
ligible on the instrument."\(^1\) Similar statements are to be found in nearly all arranging and instrumentation texts. However, where marching band music is concerned, they confuse the issue. The opinions of such authors would be tempered greatly if they had had an opportunity to march with the band of today.

The following are some of the more simple but effective side drum strokes which may be used by the marching band arranger:

\[ \begin{align*}
\text{a)} & \quad \begin{array}{c}
\frac{2}{4} \ \{ \ \{ \ \} \ \\
\end{array} \\
\text{b)} & \quad \begin{array}{c}
\frac{2}{4} \ \{ \ \{ \ \} \\
\end{array}
\end{align*} \]

**Fig. 2** Single Strokes

By adding flams to the examples in Figure 2, the following patterns are available:

\[ \begin{align*}
\text{a)} & \quad \begin{array}{c}
\frac{2}{4} \ \{ \ \{ \ \} \ \\
\end{array} \\
\text{b)} & \quad \begin{array}{c}
\frac{2}{4} \ \{ \ \{ \ \} \\
\end{array} \\
\text{c)} & \quad \begin{array}{c}
\frac{2}{4} \ \{ \ \{ \ \} \\
\end{array} \text{ avoid} \\
\text{d)} & \quad \begin{array}{c}
\frac{2}{4} \ \{ \ \{ \ \} \\
\end{array} \text{ avoid}
\end{align*} \]

**Fig. 3** Flam Accents (flam-tap)

The flam should be played in a closed manner, that is, as a grace note. An open flam is one that is played so that the flam is on the accented beat, \( \overline{\text{\textcircled{\textbullet}}} \). The closed flam is one in which the second note falls on the accented beat. In Figure 3d, page 6, the flam has been placed on both strong and afterbeats. This should be used sparingly and only when the arranger wants four strongly accented beats in a single measure. In Figure 3c, the flam has been assigned to the afterbeats only. This is not a standard use but is given here because it adds a certain 'lift' to popular ballads, where the arranger wants a 'swing' or 'jazz' effect. Figures 3a and 3b are the best patterns for general use.

The drag is a series of two, three, four or five strokes fused into a sort of instantaneous roll, and precedes an accented note. The more common are the three- and five-stroke rolls. (A three-stroke roll is comprised of two drag strokes with the accented beat accounting for the third stroke; four drag strokes precede the accented beat in the five-stroke roll.) If the arranger wants just a certain number of strokes in the roll, he should write out the roll as follows:

\[
\begin{align*}
\overline{\text{\textcircled{\textbullet}}} & \quad \text{Three-stroke roll (Ruff)} \\
\overline{\text{\textbullet\textbullet\textbullet}} & \quad \text{Four-stroke roll (unusual)} \\
\overline{\text{\textbullet\textbullet\textbullet\textbullet\textbullet}} & \quad \text{Five-stroke roll}
\end{align*}
\]

Fig. 4
Rolls that employ an even number of strokes are ordinarily not used since they require a different stroking technique than is common. For all practical purposes, the arranger may take the liberty of writing drum rolls in the following manner:

![Fig. 5]

Notice the tie connecting the roll with the next note. If the pattern in Figure 5a were employed by the arranger at a fast tempo, the drummer in all probability would use as few as three strokes on the roll. The final trios of John Philip Sousa's marches, The Stars and Stripes Forever, and Semper Fidelis, contain a pattern similar to that in Figure 5a. If the director slows the tempo for a 'maestoso' effect, the drummer would probably use seven or nine strokes to adjust the effect to the tempo. The common notation of three diagonal lines drawn through the stem of a quarter or half note, or above a whole note, does not actually indicate the exact number of strokes to be used by the drummer. Further discussion of the roll is unnecessary here.

By combining rudimentary strokes, the arranger may obtain some simple but effective two-measure patterns for
the side drums:

a) 

b) 

c) 

d) 

Fig. 6

These are only a few of the many more possible patterns, but the arranger should keep in mind the possibility of using a single pattern throughout the selection.

There would probably be differing opinions concerning the side drum technique as discussed here if the subject were to be debated by specialists in the percussion field. The arranger would do well to evaluate carefully all opinions and to remember always that his prime consideration is the result on the field. One of the simplest yet most effective drum beats on the field is as follows:

Fig. 7

If one will try to perform complicated rhythms on a field drum, while marching at any tempo above 130, he will immediately find that intricate drum beats are not only
superfluous but in many instances, impossible.

The cymbals ordinarily play the bass drum notation unless otherwise indicated. The arranger should reserve the cymbal crash for climax use only. Special cymbal beats may be indicated in several ways. The most common notations, however, are these: $\frac{1}{4}$ or $\Diamond$. Examination of a number of marches from different publishing houses will show that there is no standard line or space of the staff used consistently. Cymbal beats are ordinarily placed on the second or fourth space, the first and third spaces of the staff being used for the bass and side drums respectively. If the bass drum and field drum are both playing at the same time that a specific cymbal crash is indicated, the third note and stem required would confuse the part. The arranger may indicate such a cymbal crash as follows:

\[ \text{ADD CYM. (Let ring)} \]

\[ \text{Fig. 8} \]

**BRASS SECTION: The Basic Unit**

For outdoor performances, the carrying power of the brass instruments is a proven fact. "...the conditions of usual outdoor performance demand that brass tone shall dominate."

The principle functions of the brass in the indoor concert band are to supply color and contrast to the dominating reeds. Only when the brasses are used as a contrasting choir without reed support should they dominate, and then only momentarily. In the outdoor performance the situation is practically reversed.

The woodwinds have no projection value in the marching band except in great numbers, and the arranger must make certain that the brass section carries the necessary parts for a harmonic whole.

WOODWINDS: The Reinforcing Unit

Of all the woodwind instruments, the saxophones are the most valuable to the marching band. In many cases where the instruments are available, directors have found it advantageous to shift oboe, bassoon, and bass and alto clarinet players to saxophone. The saxophone is still considered a brass instrument in European bands, particularly those in France. In the United States, however, the saxophone is classified as a woodwind instrument due to the manner in which the tone is produced. The saxophone tone is more mellow than that of any cup-mouthpiece brass instrument, but the carrying quality is still remarkably more efficient for outdoor playing than that of any other woodwind. The E-flat alto and B-flat tenor saxophones are the most practical. The B-flat soprano, C-melody and B-flat bass saxophones are seldom used. This leaves the E-flat Baritone
saxophone, which is a perfectly good reinforcement for the bass part, but, unless played by a physically capable person, is too unwieldy for marching band use.

The B-flat clarinets, flutes and piccolos are the only other woodwinds that have any practical value in the marching band. In a few isolated cases, band directors have shifted clarinet players to saxophones, and, if at all possible, have shifted flute players to piccolos.

In the average situation, there are only one or two each of the double reed instruments, and one or two each of the alto and bass clarinets. A far greater number of these instruments would be required to produce sufficient volume for any type of outdoor performance where they must compete with the brass and percussion. It is fairly universal opinion that these more delicate instruments should not be subjected to outdoor playing conditions, particularly those under which the marching band functions.

Further technical considerations, ranges, balance, instrumentation and the simplified score are covered in the succeeding chapters.
CHAPTER II

RANGES AND TRANPOSITION

RANGES

Every arranger should be guided by two factors in selecting and defining ranges: (1) the tessitura of the compass of each instrument, (2) the limitations of his players. If the reader is interested in detailed and complete information regarding ranges of specific instruments, he should consult any standard instrumentation guide, such as, Forsyth, Andersen, Heacox or Berlioz. Even the experienced arranger does not always know the upper and lower limits of all the instruments for which he is writing, but, more important, he does know where the instrument sounds best, and he will invariably use the tessitura of the instrumental ranges for clear and effective scoring.

Many bands contain players who are capable of performing over a great instrumental range. However, extremes should be used with taste and discretion. The arranger would do better to write his score with the less capable players in mind. Intonation problems in the average band are often a direct result of using the extremes of the instrumental compass. The ranges which will be listed here in this chapter are entirely usable.
The physical handicaps of marching at the faster tempos, and, frequently, on uneven ground, have been taken into consideration.

**TABLE I**

**PRACTICAL BRASS RANGES**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Written</th>
<th>Sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>B♭ Cornets *</td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
<tr>
<td>B♭ Trumpets</td>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
</tr>
<tr>
<td>F♮ Alto Horns (Mellophone)</td>
<td><img src="image5" alt="Diagram" /></td>
<td><img src="image6" alt="Diagram" /></td>
</tr>
<tr>
<td>Horns in F</td>
<td><img src="image7" alt="Diagram" /></td>
<td><img src="image8" alt="Diagram" /></td>
</tr>
<tr>
<td>Trombones Baritones (Euphonium)</td>
<td><img src="image9" alt="Diagram" /></td>
<td><img src="image10" alt="Diagram" /></td>
</tr>
<tr>
<td>B♭ and BB♭ Basses</td>
<td><img src="image11" alt="Diagram" /></td>
<td><img src="image12" alt="Diagram" /></td>
</tr>
</tbody>
</table>

*For the remainder of this and succeeding chapters, the word 'cornet' will imply both cornet and trumpet, unless otherwise indicated.*
The brass instruments in Table I, page 14, are common to all marching bands. Occasionally, the arranger may be required to score for the valve trombone, the B-flat tenor horn or the B-flat bass. For these three less common instruments, the range assigned to slide-trombones and baritones is applicable.

The E-flat soprano cornet is not commonly found in the United States. Wherever the band is composed of brass instruments only, the E-flat cornet may be employed to advantage. Similarly, the E-flat alto trumpet may be included in the all-brass band. However, any brass instruments that do not appear in Table I, page 14, are seldom encountered. The Ohio State University Marching Band, consisting of brass instruments and percussion only, employs these less common brasses, but this is a singular situation. For all purposes pertaining to this thesis, the written range for both the E-flat cornet and the E-flat alto trumpet should be exactly as listed for the E-flat alto horn. (See Table I, page 14.)

The actual sound of the E-flat cornet is, of course, an octave above that of either the E-flat alto horn or E-flat alto trumpet.

The reader may consider the range given in Table I, page 14, for the horns, too limited. From the standpoint of the divisi type of scoring for the horns, he might have a serious point. In the standard march, where the horns are playing three or four different parts, the lower range
limit would probably be extended a major third beyond that given in Table I, page 14. For the outdoor performance, however, the best results are not obtained from divisi scoring of this section. In the method here presented, the horns will play a single line and the range as listed in Table I, page 14, will suffice.

The range assigned to the basses lists contra B-flat as the practical low note. The arranger should use it primarily in a descending passage, such as:

![Fig. 9](image)

Similarly, the upper limit of the bass range should be used only in completing an ascending line, such as:

![Fig. 10](image)

In general, the bass part will and should lie in a very comfortable playing range. The manner in which the bass line moves is to a large degree determined by the key.

![a]![b]
<table>
<thead>
<tr>
<th>Instrument</th>
<th>Written</th>
<th>Sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>C Flutes *</td>
<td><img src="image" alt="C Flutes Written" /></td>
<td><img src="image" alt="C Flutes Sounds" /></td>
</tr>
<tr>
<td>C Piccolos**</td>
<td><img src="image" alt="C Piccolos Written" /></td>
<td><img src="image" alt="C Piccolos Sounds" /></td>
</tr>
<tr>
<td>B♭ Clarinets</td>
<td><img src="image" alt="B♭ Clarinets Written" /></td>
<td><img src="image" alt="B♭ Clarinets Sounds" /></td>
</tr>
<tr>
<td>B♭ Alto Saxophones</td>
<td><img src="image" alt="B♭ Alto Saxophones Written" /></td>
<td><img src="image" alt="B♭ Alto Saxophones Sounds" /></td>
</tr>
<tr>
<td>B♭ Tenor Saxophones</td>
<td><img src="image" alt="B♭ Tenor Saxophones Written" /></td>
<td><img src="image" alt="B♭ Tenor Saxophones Sounds" /></td>
</tr>
<tr>
<td>B♭ Baritone Saxophones</td>
<td><img src="image" alt="B♭ Baritone Saxophones Written" /></td>
<td><img src="image" alt="B♭ Baritone Saxophones Sounds" /></td>
</tr>
</tbody>
</table>

* *B♭ Flutes sound the same but are written half-step lower.*

** *B♭ Piccolos sound the same but are written half-step lower.*
Ranges for the remaining woodwinds are not given here since such instruments are not common to the marching band. The E-flat soprano clarinet is seldom, if ever, found anymore. The B-flat soprano saxophone as well as the C-melody saxophone are practically obsolete. For reasons explained in the previous chapter, the double reeds, alto and bass clarinets and bass saxophone are also excluded here.

There could be much debate about the range listed for the B-flat clarinets in Table II, page 17. The range assigned in this instance is confined to the clarion register. It is true that in the divisi style of writing, the first clarinet part often ascends into the altissimo or high register. This part requires assignment in all cases to the more capable players. The high notes of the altissimo register are omitted here so that the whole clarinet section is able to perform comfortably an individual line. Another standard scoring practice is the use of the clarinet section in unison in the low or chalumeau register, frequently doubling a melody or countermelody that is basically announced in the baritone part. In this case, however, the cornets and trombones are either tacet or playing appropriate figurations. This, it is true, is a welcome relief on the concert stage, but a hopeless and useless item on the football field or parade ground. The low tones of the chalumeau register, even though played
at a fortissimo level, are completely lost in the marching band since the brass instruments are seldom if ever tacet. The high tones of the altissimo register are sometimes beyond the technical ability of the less capable player, and furthermore, will produce intonation problems that often defy solution by even the college band. For the purpose of the simplified score, the clarion register (see Table II, page 17) is recommended for the clarinets.

To the advanced saxophonist, there is little or no difficulty connected with playing the complete compass of the instrument's range. However, it is often the experience of every high school band director that his saxophone players have trouble with the low tones, C, B, and B-flat. These tones are often hard to play under the best conditions since they are generally out of adjustment.

The following tones of the upper register are, however, easily played on all saxophones:

\[ \begin{array}{c}
\# C \\
\# B \\
B \\
B - \flat
\end{array} \]

Fig. 12

The reason they are not listed in Table II, page 17, is that in this particular method the tones are never required. Further, it is only common sense that a difficult low tone on the alto saxophone could be much more easily played on the tenor saxophone, which would sound the same
note in an easier register. Similarly, a high note on the tenor saxophone would have better quality if given to the alto saxophone. The higher tones of the latter instrument would be used only in the case of further division of parts in scoring the arrangement. In this method, the alto saxophone is used as a reinforcement of the alto horn part, thereby limiting its range. If the arranger desires, he may use the alto saxophone to reinforce a cornet part, but, since the saxophone in this case is tuned to E-flat, it simplifies the copying of parts if it is used as a reinforcement of the E-flat alto horn.

As a closing remark under ranges, it should be noticed that there is one specific occasion when ranges may be extended slightly, depending upon the capabilities of the bandsmen. The fanfare is an extremely effective item on the field and is ordinarily performed from a standing rather than a marching position. This obviously facilitates better control of the instruments. Therefore, range extension is not improbable, and, in the larger bands, also permits greater division of the different instrumental sections.
TRANSPOSITION

The experienced arranger has no trouble with transposition principally because he develops certain short-cut methods. Even though his short-cuts may seem to lack a logical procedure, they are permissible time savers so long as the end result is correct.

A practical approach to transposition for the beginning arranger is the construction of a chart for both transposing and non-transposing instruments showing only the necessary steps. The arranger ordinarily thinks in one direction only; that is, from the concert pitch to the instrument notation. It is the director or score-reader who must use the reverse direction, of thinking instrument notation to concert pitch. In the case of transposing instruments, the ordinary textbook procedure takes the student in both directions at once, by stating that a certain instrument sounds higher, therefore it must be written lower, and vice versa. The arranger need concern himself with only the one direction, that of concert pitch to instrument notation, since his task is one of copying parts or writing the transposed score. It is a small point, perhaps, because if one direction is known the other is obvious. However, it should be evident that one direction of thought is a step towards simplification. Charts are available in any good text, but, if the arranger becomes familiar with a chart of his own construction, he will find
that transposition presents none of the problems that con-
front the student who attempts to memorize a given method.

The following paragraphs will serve as guides for the
construction of a transposition chart.

There are only six instruments of the band whose parts
are written below the given concert pitch. They are: E-
flat soprano clarinet, E-flat soprano cornet, C and D-flat
piccolos, D-flat flute, and the Glockenspiel (bell-lyre).
Of these six instruments, those generally encountered are
the D-flat piccolo and the bells. Although there has been
a growing tendency to employ the C-flutes and C-piccolos,
the D-flats are still numerous. When copying parts, the
arranger may simplify his task by writing one part for the
use of C-flutes, C-piccolos and the bells. Similarly, one
part will suffice for both D-flat piccolos and D-flat flutes.

All other instruments of the marching band require
parts written above the given concert pitch, excepting
those notated in the bass clef. Any band or orchestra
instrument, that has its part written in the bass clef,
is non-transposing. When transposing is required, the
arranger may find it easier to consider the smaller inter-
val relationship between the concert pitch and the re-
spective instrument notation: for the transposing E-flat
instruments, to think a minor third down; for the trans-
posing D-flat instruments, to think a minor second down;
for the transposing B-flat instruments, to think a major
second up. When transposing a part to be played by the horns in F, or, for that matter, the English horn, the arranger may find it easier to think up a perfect fifth from concert pitch rather than the smaller interval of a perfect fourth downward. The interval of a perfect fifth upward immediately assigns the correct notation for the F horn, while the perfect fourth downward requires an octave adjustment. Further, the perfect fifth is readily and quickly identified, being commonly encountered in chord construction; for example, 1-3-5 or 4-6-1. Therefore, the arranger is concerned with only four interval relationships: the minor third, the major and minor seconds and the perfect fifth. The adjustment to the proper octave level requires practice more than thought. In the case of the E-flat alto saxophone and the E-flat alto horn, it is easier to think down a minor third, then up an octave, instead of thinking the direct interval of a major sixth upward. The E-flat baritone saxophone part is written a major thirteenth (major sixth plus an octave) above the concert pitch. Would it not be simpler to think down a minor third and then two octaves up to obtain the correct notation for this instrument?

The trombone and baritone are sometimes played by instrumentalists who read the treble more readily than the bass clef. If so, the instruments then become transposing. Instead of thinking the direct interval of a major ninth
above the concert pitch, it might simplify the transposition if the arranger thinks of this interval as a major second plus the octave upward. (This is also true of the B-flat tenor saxophone and B-flat bass clarinet, since their parts are written in the treble clef). The arranger’s thinking, then, for all instruments tuned to B-flat, whether B-flat clarinets and cornets or a double B-flat bass part written in the treble clef, consists essentially of only the major second.

There is a short-cut in writing the B-flat baritone saxophone part, or, for that matter, an E-flat bass part written in the treble clef. It is an outgrowth of the practice of giving the baritone saxophone player a bass part to play when there is no part available for his instrument. This player merely makes the necessary transposition by mentally inserting a treble clef sign and adding three sharps to the key signature. If the bass part contains five flats in the signature, the baritone saxophone player will cancel the last three flats by adding three sharps, leaving the proper key signature (two flats) for his instrument. He must also make a further adjustment when the part contains accidentals. For example, the first space of the bass clef is A. The same space in the treble clef is F. If a flat sign were placed in front of the A, it would become A-flat. In
the treble clef, however, the tone would not be F-flat, but F-natural. This is due to the fact that the player mentally added three sharps to the signature, and therefore, while a bass player is reading A, the baritone saxophone player visualizes F-sharp. The following Figure will illustrate the manner in which the arranger may write the bass part so that it may be assigned to both bass and E-flat baritone saxophone players:

![Musical notation]

Fig. 13

(Notice that the treble clef sign and its related key signature are placed on the staff before the meter is indicated.)

As a summarization of the preceding paragraphs, the following Table illustrates the necessary steps in transposition. It is constructed to illustrate the simplest and most direct thought-procedure for all the instruments of the band.
### TABLE III

**CHART OF TRANSPOSITIONS**

<table>
<thead>
<tr>
<th>Concert Pitch and/or Original Key</th>
<th>Instrument</th>
<th>This Interval Thought</th>
<th>This Note Written</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C-Flute Oboe C-Melody Sax.</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td><img src="image" alt="C-Flute Oboe C-Melody Sax." /></td>
<td>C-Piccolo Glockenspiel (Bell-lyre)</td>
<td>Octave Down</td>
<td><img src="image" alt="Octave Down" /></td>
</tr>
<tr>
<td><img src="image" alt="C-Piccolo Glockenspiel (Bell-lyre)" /></td>
<td>D♭ Flute</td>
<td>Half step Down</td>
<td><img src="image" alt="Half step Down" /></td>
</tr>
<tr>
<td><img src="image" alt="D♭ Flute" /></td>
<td>D♭ Piccolo</td>
<td>Half step and one octave down</td>
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</tr>
<tr>
<td><img src="image" alt="D♭ Piccolo" /></td>
<td>E♭ Clarinet E♭ Cornet</td>
<td>Minor 3rd Down</td>
<td><img src="image" alt="Minor 3rd Down" /></td>
</tr>
<tr>
<td><img src="image" alt="E♭ Clarinet E♭ Cornet" /></td>
<td>B♭ Clarinet B♭ Soprano Sax. B♭ Cornet B♭ Trumpet</td>
<td>Major 2nd Up</td>
<td><img src="image" alt="Major 2nd Up" /></td>
</tr>
<tr>
<td><img src="image" alt="B♭ Clarinet B♭ Soprano Sax. B♭ Cornet B♭ Trumpet" /></td>
<td>E♭ Alto Horn E♭ Alto Sax. E♭ Alto Clar.</td>
<td>Minor 3rd down, then octave up</td>
<td><img src="image" alt="Minor 3rd down, then octave up" /></td>
</tr>
</tbody>
</table>
## TABLE III (continued)

**CHART OF TRANPOSITIONS**

<table>
<thead>
<tr>
<th>Concert Pitch and/or Original Key</th>
<th>Instrument</th>
<th>This Interval Thought</th>
<th>This Note Written</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Horn in F</td>
<td>Perfect 5th Up</td>
<td></td>
</tr>
<tr>
<td></td>
<td>English Horn</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E♭ Tenor Sax.</td>
<td>Major 2nd and one</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bass Clar.</td>
<td>octave up</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tenor Horn</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baritone (♭)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trombone (♮)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B♭ Bass (♮)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baritone</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td></td>
<td>Trombone</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B♭ Bass</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E♭ Bass</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BB♭ Bass</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bassoon</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E♭ Baritone</td>
<td>1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Saxophone</td>
<td>Minor 3rd down, then</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>up two octaves.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Same position on</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the staff. Merely a</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>clef change from bass to treble and add 3 sharps</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER III

ESSENTIAL MUSICAL FACTORS IN SIMPLIFIED SCORING

Every text on arranging that has been examined states at the outset that the first requisite of a successful arranger is a thorough knowledge of the instruments. This, however important, cannot insure successful arranging. Knowledge of instrumentation serves as a guide for the arranger. In the case of the marching band it should serve to restrain, and, in a sense, subdue the arranger’s musical creations. It is true, perhaps unfortunately, that an arrangement can be musically outstanding and yet unplayable. An over-arranged selection is as disastrous as one which is poorly arranged. Due to the range limitations and physical handicaps imposed by the marching band, the arranger must constantly direct his creative craft in terms of the instrumental possibilities, staying within these limitations and handicaps.

On the other hand, if the music is fundamentally poor, the best instrumentation possible will fail to improve it. A thorough knowledge of the musical factors of simplified scoring is fully as necessary to the arranger as is the aforementioned instrumentation problem. There are four essential musical items in every arrangement. These are,
in the order of their importance: melody, countermelody, harmony and rhythm. It should be noted, however, that they are interdependent.

**MELODY**

The melody is the identifying feature and should predominate at all times. Due to the many restrictions imposed by the marching band, the arranger will find it best to state the melody exactly as the composer wrote it. Any melodic elaborations that are added by the arranger only increase the memorization problem of the player, and often confuse the listener. When scoring a selection that consists of only eight or sixteen measures, the arranger may vary the content of his arrangement in order to avoid monotony. This is best done by changing the key, shifting the melody to another register, changing the tempo, or, by treating the melody in a different metrical or rhythmical manner. In any event, the first statement of the melody should express the composer's original intentions; then, if the melody is compatible with any of the techniques of variation, the arranger may embellish or modify the musical thought, keeping the essential features of the original. The truth of the matter is that many melodies will not admit melodic variation. It should also be noted that the swiftly changing scene on the football field does not re-
quire long and varied arrangements.

In the matter of key selection, the melody should lie in a singable range for the average voice, as is the case with songs chosen for a community songfest. By this method, the key selected will also allow the melody to fall within the range limits of the usual melody instruments, such as the cornets. Another point to be made here with regard to the matter of key selection is that keys employing one to five flats lend themselves much better to band arranging than do the sharp keys. As the majority of brass and woodwind instruments are built to sound fundamentally in flats, it follows that a flat key is technically easier. For example, the key of G does not present any problem to instruments built in concert pitch, but the D-flat piccolo part will then be in F-sharp.

A chromatic melody, or, one that contains numerous accidentals, will present fingering problems in any key; but, for the most part, selections employed by the marching band are diatonically constructed.

If an arranger were required to score the Stephen Foster selection, Oh! Susanna, he would probably consult a standard song book first to obtain the correct melody. He might find the range satisfactory but the key awkward for band scoring. The melody of this selection as found
in *Twice 55*, for instance, is stated as follows:

![Musical notation](image)

**Fig. 14**

Upon examination of the melody, we find it covers the range of only a major sixth. This rather confined range gives the arranger the choice of several keys, the three most likely being D-flat, E-flat and F. In such a case, where the compass of the melody is so limited and starts and ends in a low register, it would be better to choose a higher key, that is, E-flat or F. In many cases, the arranger will find the key selection more difficult because of a greater interval span in the melodic line. As an example, the melody of *The Star-Spangled Banner* covers the interval of an octave and a fifth, and, for all general purposes, the key choice is B-flat.

As a consideration further, the arranger should use the simplest time signature that will still properly express the music. This serves a dual purpose: easier reading as well as writing. For instance, in Figure 14 above, the rhythmic values of eighth and sixteenth notes require more work when copying parts than would their equivalents if the 'cut-time' signature were used. By taking into consideration the key center, time signature and range, the following example will illustrate a better melodic
structure for the band arrangement:

\[ \text{etc.} \]

**Fig. 15**

**COUNTERMELODY**

There are several reasons why countermelody has a position of importance over and above harmony. The first and most important is 'line'. It should be stated here that the arranger should make every possible attempt to give each instrumental section a good line to play. This line, in the case of the inner or harmonic parts, will move in a form that is rhythmically similar to the melody. The countermelody, however, is of far greater importance in the scoring structure used here, and, if the arranger writes his inner harmonic lines first, he is very likely to limit the natural motion of the countermelody. Here lies the secret of a good march arrangement, and particularly so in the case of the simplified score where the ordinary woodwind embellishments are omitted. In composing a countermelody, the arranger will show his creative ability, and, in order to temper the urge to write too many notes, the following suggestions should be carefully considered:

1) The countermelody should be constructed in double counterpoint, if possible, so as to
eliminate any possibility of discordant sounds.

2) If a harmonic variation from the original is indicated by a natural motion of the countermelody, the arranger should by all means make the change. If the harmonic change does not sound good, the motion of the line is probably forced rather than natural.

3) An old but reliable technique in writing is: when the melody sustains, the countermelody should move; when the melody moves, the countermelody should sustain.

4) Do not use too many notes. The countermelody should be subordinate to the melody. At no time should it assume characteristics of such importance that it becomes more interesting than the melody.

5) If the melody will admit canonic imitation, this is a very effective device to use.

6) If the melody is played in a staccato manner, a flowing, legato countermelody is appropriate, and, vice versa.

There are actually no definite rules for the creation of countermelodies, but the above mentioned do's and don't's should aid the inexperienced arranger.

To simplify the scoring method still further, all
trombones and tenor saxophones should be combined with the baritones to emphasize the countermelody. The reason for strengthening the countermelody in this manner is because some of the formations used on the field disperse, or, stretch out the band into an open position, and, in this instance more than any other, the binding feature of the additional instruments bolstering this part is welcome.

The lower register of the slide trombone limits somewhat the flexibility of the countermelody, and the technical difficulties involved in changing positions of the slide will necessarily qualify the rhythmic motion. This should not be construed as a weakness but rather an additional argument for the simplified type of writing and scoring. There is a tremendous 'punch' gained on parade by combining all the tenor quality brass instruments and the tenor saxophones on the countermelody. This is true regardless of the size of the band. For example, in the smaller marching bands of twenty-five to forty members, where one or two baritones are all that are available, a countermelody would be a useless item unless reinforced by the trombones and tenor saxophones. In an organization such as the Ohio State University Marching Band of 110 brass instruments, the countermelody played by 16 baritones would be equally as lost due to the large number of cornets. In the hushed auditorium, greater division of parts and instruments is necessary for color, balance
and variety in the arrangement, but the outdoor performance demands additional strength on a line as important as the countermelody.

HARMONY

The harmony is important from the standpoint of 'filling-in' the arrangement. Great effort is required on the part of the arranger to move the harmonic parts with sufficient interest. The inner parts will not be as strong as the melody or countermelody, but, nevertheless, should be of enough interest for easy memorization. The arranger may find it necessary to adjust the countermelody or the original harmony when writing these 'filler' parts.

It is extremely important that active tones should be properly resolved. For the most part, an inner line will follow the melodic line in a parallel motion, but where skips occur in the melodic line and a harmonic change is involved, it is best to move the supporting parts to their nearest chord tones; for example:

![Figure 16](image)

An arrangement can be fairly successful with just one
harmony part if the countermelody chiefly employs chord tones other than those of the melody or the one harmony part. The movement of the countermelody will of course be restricted somewhat because of this added burden. This would make an arrangement of parts much the same as in a four-part harmony exercise:

![Musical staff with four parts: Melody, Harmony, Countermelody, Bass.](image)

**Fig. 17**

The melody with two harmony parts and bass is sufficiently complete in sound to free the countermelody from the added restriction of filling out the chord. However, the countermelody may often be adjusted so as to complete the chord whenever seventh chords appear in the structure; for example:

![Musical staff with four parts: Melody, Harmony, Countermelody, Bass.](image)

**Fig. 18** * Indicates complete seventh chords
The complete seventh chord is a better sound particularly in the case of the diminished seventh. It should be mentioned here in connection with the complete chord sound that the arranger cannot depend a great deal on the bass part for harmonic support, unless it is sustained. The ordinary bass part adds more to the rhythmic qualities than to the harmonic qualities, but this can hardly be avoided. Wherever the bass line moves in a stepwise manner, the arranger should use larger note values in place of the usual rests, in order to give added support to the harmonic structure.

Two harmony parts are more advantageous when the melody line is in the upper register. If only one harmonic filler is used, the harmony will be forced into an open position and the resulting interval distance between chord members will be too great for good vertical sonority. At the keyboard it may sound sufficient, but, in instrumental writing, the best vertical sonority is obtained by a well-knit, compact chord structure in the upper voices. The distance between the bass part and the countermelody is often unavoidably great. However, the interval of a tenth or even two octaves between the bass and countermelody lines will not hamper the harmonic sound as long as the upper voices are closely knit. The following Figure will help to illus-
trate this point:

Fig. 19

The musical result of Figure 19 is harmonically correct but will be a rather weak sound in the instruments. The added harmonic line in Figure 20, which follows, will enhance the vertical structure. This arrangement, with three treble voices, will have a considerably stronger sound.

Fig. 20
RHYTHM

Rhythm is the fourth and last of the essential factors. The drum section supplies the constant, steady rhythmic pulse that is necessary for marching. (See pages 4 - 10, Chapter I). There is, however, a rhythmic factor in the parts themselves that needs the careful attention of the arranger. The exclusion of afterbeats will not detract from the rhythmic sense of the marching band arrangement. Many standard arrangements contain some of the following rhythms:

![Rhythm Notations]

**Fig. 21** Typical afterbeat pattern

**Fig. 22** Rhumba

**Fig. 23** Baguine

The above rhythms are effective, it is true, but generally require extra rehearsal as well as easier playing conditions than those found on the football field. The arranger should use only the simplest of rhythms in all parts, with accents primarily on the strong beats.
The following Figure illustrates simple but effective accenting, primarily on the strong beats.

![Fig. 24]

The filler parts in most cases should move in the same rhythmic patterns as the melody:

![Fig. 25]

Figure 25 is correct harmonically but wrong rhythmically. Not only is the rhythmic force lost in this arrangement but, by the second measure, the average marching band player will find difficulty in sustaining his part at the necessary level of volume to maintain balance in the chord. Under the physical handicaps of maneuvering on the football field, the arrangement's chord color is more easily maintained if the
arranger will avoid using long, sustained harmonic parts. The following scoring in Figure 26 will not only aid the rhythmic effect, but will in turn make the player feel as though he wants to step out and march.

Fig. 26

There are many factors in music that are lost on the football field. Dynamics and change of color or timbre suffer the greatest damage. About the only change in dynamics is from loud to very loud. Strangely enough this does make sense, for the acoustic problem of outdoor playing plus the noise of the crowd prohibits soft or delicate passages. The only change in color that is sufficiently effective is the shifting of the melodic line to the tenor and bass instruments, with the trumpets and higher woodwinds playing appropriate melodic and rhythmic figurations.
There are two questionable devices that often occupy a majority of the arranger's time when scoring a selection. These are: modulations and introductions. Let it be forcefully stated that both devices could well be omitted when scoring for the marching band. Many band directors try to arrange the selections used during a show so that the sequence of tonalities will progress in an upwards manner. This too is a highly debatable item. Such devices occupy entirely too much time on the part of the arranger, and if it is the director's desire to gain audience attention, he may do it much more effectively by using fanfares or announcements over the public address system. If the arranger still insists on modulation, it can be done quickly and effectively by using the common chord or common tone techniques. It is the opinion of many arrangers that the abrupt change from one key to another, regardless of how distant, is a desirable effect on the field. If introductions are desired, they should be done in the manner of a fanfare while the band is standing at attention. For the best effect, the band would then step out on the first full measure of the selection. The procedure of using the last four measures of the tune for an introduction is particularly trite. If the selection starts with an anacrusis, a short introduction of not over two measures would be of value in getting the band started properly. The pick-up notes would then occur at the end of the second measure.
CHAPTER IV

THE SIMPLIFIED SCORE

By the elimination of instruments that are either too delicate or too cumbersome for the marching band, the scoring problem is already greatly simplified. Taking into consideration the points mentioned in the previous chapters, the marching band instrumentation is now as follows:

<table>
<thead>
<tr>
<th>MARCHING BAND INSTRUMENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C and D-flat Piccolos</td>
</tr>
<tr>
<td>C and D-flat Flutes</td>
</tr>
<tr>
<td>Clarinets</td>
</tr>
<tr>
<td>Saxophones: Alto, Tenor</td>
</tr>
<tr>
<td>and Baritone</td>
</tr>
<tr>
<td>Cornets (Trumpets)</td>
</tr>
<tr>
<td>E-flat and F Horns</td>
</tr>
<tr>
<td>(Mellophone)</td>
</tr>
<tr>
<td>Baritones (Euphonium)</td>
</tr>
<tr>
<td>Trombones</td>
</tr>
<tr>
<td>Basses</td>
</tr>
<tr>
<td>Drums</td>
</tr>
<tr>
<td>Glockenspiel (Bell-lyre)</td>
</tr>
</tbody>
</table>

This chapter will deal primarily with the distribution of the instruments listed above.

The standard scoring technique of dividing the larger instrumental sections into three parts must be abandoned, except for the cornet section. This is the only instrumental section that can be divided and still keep a penetrating quality, due primarily to the tonal brilliancy of
the instrument, and to the fact that there are more cornets than other brasses in the marching band.

As previously stated in Chapter III, the melody should predominate at all times; therefore, more players should be put on the 1st part than on the 2nd or 3rd parts. If the band contains nine cornets, the best division is not by three's, as might be assumed, but as follows:

1st Part ... 5 Cornets  
2nd Part ... 2 Cornets  
3rd Part ... 2 Cornets  

Fig. 27

If only two divisions are made in this section, six players should be used on the 1st part, leaving three for the 2nd part. This may seem to be a 'top-heavy' distribution, but as we proceed, it will be shown to be the best division of this section due to the manner in which the other instruments are used.

Before going further into this matter of balance, it is necessary to discuss the simplified scoring treatment of the clarinet section. If the clarinets are to be heard at all, the whole section should play the same part. Twelve clarinets playing a single line may have some possibility of adding to the total color. In the superior organization, the clarinet part may be more elaborate occasionally, but the creation of an embellishing line requires more thought as well as time on the arranger's part. An
excellent line can be written for the clarinets by using them in much the same way as the high tenor voice is used in the male vocal quartet. A parallel example of this technique is to be found in the Ohio State University All-Brass Marching Band, which uses the B-flat soprano cornet in the same manner as suggested above for clarinets. Their part lies above the melodic line of the 1st cornet part and can be written in a free style, counter to the melody, or as an octave transposition of the best harmonic line beneath the melody. In any case, the part will lie above the melody and should always be adjusted to the most pleasing interval relationship.

Using the clarinets in the manner suggested above serves a dual purpose. The clarinets will be playing in a range that is best suited to the outdoor performance and at the same time will be reinforcing a lower harmony. Because the clarinets and the cornets are both tuned to B-flat, a common procedure has been to give the clarinets the 1st, 2nd and 3rd cornet parts to play, either as written or at the octave above. If the clarinets play at the same pitch level as the cornets, they will be playing in their least audible register. The weaknesses of the lower clarinet register, particularly the 'throat' tones, outnumber the advantages when scoring for the marching band. If the clarinets play the cornet parts at the octave above, the 2nd and particularly the 3rd parts will be placed in a
more effective register. At the same time, the 1st clarinets will frequently be playing in the altissimo register, thereby admitting a possible intonation problem. The 1st, 2nd and 3rd clarinets may look better on the score but unison treatment of this section is the only sensible one for the marching band.

The flutes and piccolos are used to best advantage in doubling the melody. Although the flute and piccolo parts will be written an octave above the 1st cornet, sounding an octave and two octaves higher respectively, they will still serve as a reinforcement of the 1st cornet melodic line. As a matter of convenience in copying parts, the bell-lyre can read the C-flute part. However, if the arranger were to write a highly embellished line for the flutes, a separate part would have to be written for the bells since they are played with only one mallet and cannot execute rapid passages. If the part is to be played by the glockenspiel as well as the C-flutes and C-piccolos, the arranger should write the part in octaves so that the glockenspiel player can read the lower notes since his instrument sounds an octave higher than it is written.

The E-flat alto horns and E-flat alto saxophones will play the same part, functioning as reinforcement for the low notes of the 3rd cornet part wherever necessary.

The B-flat tenor saxophones are well-suited to the countermelody.
The E-flat baritone saxophones are employed best as reinforcement for the bass part. If the bass line descends below the staff, the arranger should write the part in octaves to accommodate the baritone saxophone player, unless a separate treble clef part is copied for his specific use.

Keeping the preceding instrumental considerations in mind, it would be well at this point to assign specific musical duties to the instruments. The following list is for general use, and, while it does not admit any variations of the musical factors, the arranger will find it the most practical guide for straightforward, effective scoring.

**TABLE V**

**MUSICAL DUTIES OF THE INSTRUMENTS IN THE MARCHING BAND**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Best Musical Duty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Piccolos</td>
<td>Melody (double 8va)</td>
</tr>
<tr>
<td>2. Flutes</td>
<td>Melody (8va)</td>
</tr>
<tr>
<td>3. Clarinets</td>
<td>Harmony (8va)</td>
</tr>
<tr>
<td>4. Alto Saxophones</td>
<td>Harmony</td>
</tr>
<tr>
<td>5. Tenor Saxophones</td>
<td>Countermelody</td>
</tr>
<tr>
<td>6. Baritone Saxophones</td>
<td>Bass</td>
</tr>
<tr>
<td>7. 1st Cornets</td>
<td>Melody</td>
</tr>
<tr>
<td>8. 2nd Cornets</td>
<td>Harmony</td>
</tr>
<tr>
<td>9. 3rd Cornets</td>
<td>Harmony</td>
</tr>
<tr>
<td>10. Horns</td>
<td>Harmony</td>
</tr>
<tr>
<td>11. Baritones</td>
<td>Countermelody</td>
</tr>
<tr>
<td>12. Trombones</td>
<td>Countermelody</td>
</tr>
<tr>
<td>13. Basses</td>
<td>Bass</td>
</tr>
<tr>
<td>14. Drums</td>
<td>Rhythm</td>
</tr>
<tr>
<td>15. Glockenspiel</td>
<td>Melody (8va)</td>
</tr>
</tbody>
</table>
Occasional deviations from Table V, page 47, are sometimes necessary for variety and change of color. Everyone likes to play the melody, and the arranger should frequently assign a four- or eight-measure segment of the melody to the instruments that ordinarily play harmony, countermelody or bass parts. A particularly strong device available to the arranger is that of unison treatment of the instruments. In this case, all instruments are assigned to the melody, and, since the supporting musical factors are absent from the structure, the unison passage is usually not very prolonged. Its length depends entirely upon the adaptability of a melodic phrase to this technique. For instance, the melody we associate with a ponderous movement, such as elephants walking, can be treated in a unison manner throughout.

\[ \text{Fig. 28} \]

An excellent effect is obtained by assigning the above melody in unison to the whole band, or to the lower-pitched instruments only. (The term 'unison' as applied to instrumental music refers to the same notes in any octave, not merely at one pitch level.)
An experienced arranger will often use a concert sketch or condensed score, in which case he might use as few as two staves to notate the different parts of the arrangement. Unless very carefully constructed, a concert score of two or three staves can be confusing and is of little use unless the arranger does his own copying of parts. Sometimes a two-staff condensed score is included in a published selection for band so that the conductor may have all the harmonic, rhythmic and melodic elements at his fingertips. In any case, it is difficult to follow an individual line of notes when the score is compressed in such a manner. The average arranger and particularly the beginning one will find it to his advantage to use a concert score, with one staff assigned to each necessary musical factor. If the arranger does his own copying, he may write the parts directly from the concert score, making the necessary transpositions as he writes each part. If some other person is to do the copying, it will be necessary in most instances for the arranger to write a transposed score from his original concert sketch or score.

Some arrangers are capable of writing a transposed score at the same time that they are creating the arrangement, and, in some instances, they have the ability to make an 'on-the-spot' arrangement, writing out the parts without any score at all. Arrangers with such talent are
few in number and although their work is quickly done, their arrangements contain a certain sameness due to the fact that they must necessarily think vertically rather than horizontally. In any case, the simplest procedure is to write a concert pitch score first, using as many staves as necessary; then, if needed, a transposed score. By writing in concert pitch, the arranger is relieved of the added burden of transposition while he is creating and molding the necessary musical factors of the arrangement. Any short-cut methods that do not hamper the musical result should be used.

The number of staves used in the concert pitch score depends on the number of musical factors to be included in the arrangement. The following Table illustrates the essential elements of the five-line score:

TABLE VI
THE FIVE-LINE SCORE

<table>
<thead>
<tr>
<th>Staff Number</th>
<th>Musical Factor</th>
<th>Best Instrument Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Brass: basic Woodwinds: reinforcing</td>
</tr>
<tr>
<td>1</td>
<td>Melody.............</td>
<td>Cornets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Piccolos (double 8va) Flutes (8va)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Glockenspiel (8va)</td>
</tr>
<tr>
<td>2</td>
<td>Harmony.............</td>
<td>Horns</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alto Saxophones</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clarinets (8va)</td>
</tr>
<tr>
<td>3</td>
<td>Countermelody........</td>
<td>Baritones</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TENOR Saxophones</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trombones</td>
</tr>
<tr>
<td>4</td>
<td>Bass..............</td>
<td>Basses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Baritone Saxophones</td>
</tr>
<tr>
<td>5</td>
<td>Rhythm.............</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Drums</td>
</tr>
</tbody>
</table>
The five-line score represents the minimum in simplified scoring for the marching band. In the average high school band, where the horns might be too few in number to carry the harmonic structure, it is necessary to divide the cornets, placing two-thirds on the melody, and the remaining third on the harmony part with the horns.

A solid-sounding arrangement is difficult to obtain with the five-line score because one harmony part will not produce sufficient vertical structure, and, as a result, the countermelody will probably become merely another harmony part in order to give a more complete chord sound. Another disadvantage of the five-line scoring technique is the resulting open voicing of chords when the melody line is in a high register. The following Figure illustrates this point:

![Musical Score](image)

**Fig. 29**

In Figure 29a, the melodic line is low and the resulting harmonic structure is good. In Figure 29b, the open
Spacing is unavoidable because of the high melodic line. Interval distance between the bass and countermelody may reach two octaves without bad results, but when the interval distance between the upper voices is also unusually open, a feeling of strain as well as emptiness is placed on the vertical structure. The five-line score is, in a sense, an outgrowth of the four-part harmony exercise, and since it is musically adequate, it should be considered as a possible vehicle for the simplified band arrangement.

The six-line score is a comparatively new method of simplified arranging. It has been employed successfully at Ohio State University by Professor Manley R. Whitcomb for the past few years, in arranging special music for the all-brass marching band. The following Table illustrates the essential elements of the six-line score:

**TABLE VII**

**THE SIX-LINE SCORE**

<table>
<thead>
<tr>
<th>Staff Number</th>
<th>Musical Factor</th>
<th>Best Instrument Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Brass; basic</td>
</tr>
<tr>
<td>1</td>
<td>Melody.........</td>
<td>1st Cornets</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Harmony........</td>
<td>2nd Cornets</td>
</tr>
<tr>
<td>3</td>
<td>Harmony........</td>
<td>3rd Cornets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Horns</td>
</tr>
<tr>
<td>4</td>
<td>Countermelody.</td>
<td>Baritones</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trombones</td>
</tr>
<tr>
<td>5</td>
<td>Bass...........</td>
<td>Basses</td>
</tr>
<tr>
<td>6</td>
<td>Rhythm.........</td>
<td></td>
</tr>
</tbody>
</table>
The addition of a second harmony part solidifies the vertical structure and allows much greater freedom in the horizontal motion of each line.

The six-line score will serve as a general, all-purpose arranging procedure, and since the musical result is better than that attainable with the five-line scoring technique, it follows that the arranger may want to extend further the possibilities of the six-line scoring method for even finer musical results.

There are two effective and sometimes necessary variations of the six-line scoring technique. The horns are listed in Table VII, page 52, opposite the second harmony part. The primary function of this assignment is to bolster the low tones of the 3rd cornet part. However, when this line gets too high for a comfortable horn range, the horns will necessarily play a lower part. Wherever the range limitations of the horns would require an adjustment to a lower part, it could be best accomplished by having them fill in the chord in the case of added-sixth, seventh or ninth chords. Other possibilities in order of preference are: to assign the horns the next lowest chord tone; to double the melody an octave lower; or on rare occasions, to reinforce the countermelody.

The second possible and often desirable variation in the six-line scoring technique is obtained by writing a separate clarinet line. As a general rule, the clarinets will play an octave transposition of the first harmony.
line (2nd cornet part). This will, in most arrangements, satisfy the rather limited range assigned to the clarinets in this thesis. However, a freer treatment of this upper clarinet line is often necessary and it may well assume the characteristics of a countermelody.

In view of the preceding considerations with regard to the horns and clarinets, the arranger might want to refine the six-line procedure in order to produce the best musical arrangement possible with this technique. The separate clarinet line can be written on the same staff with the melody, with the stems of the melodic line down and the stems of the clarinet part up. Likewise, the horn part can be written on the same staff as the 3rd cornet part. Actually it is immaterial whether the arranger follows this method or adds two more staves to his score; but that he might always be conscious of the horizontal motion of each line, it would clarify the visualization of the material if the clarinet and horn parts were written on separate staves. The resulting concert score would then have eight staves, and may be summarized as follows:
## TABLE VIII
THE EIGHT-LINE SCORE

<table>
<thead>
<tr>
<th>Staff Number</th>
<th>Musical Factor</th>
<th>Best Instrument Distribution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Free use of first harmony 8va, or upper countermelody..</td>
<td>- - - -</td>
<td>Clarinets</td>
</tr>
<tr>
<td>2</td>
<td>Melody..........</td>
<td>1st Cornets</td>
<td>Piccolos (Dbl. 8va)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Flutes (8va)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Glockenspiel (8va)</td>
</tr>
<tr>
<td>3</td>
<td>First Harmony..</td>
<td>2nd Cornets</td>
<td>Clarinets (8va)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(unless used as in staff number 1)</td>
</tr>
<tr>
<td>4</td>
<td>Second Harmony.</td>
<td>3rd Cornets</td>
<td>- - - -</td>
</tr>
<tr>
<td>5</td>
<td>Second Harmony (or: third harmony, double lead, next lowest chord tone)</td>
<td>Horns</td>
<td>Alto Saxophones</td>
</tr>
<tr>
<td>6</td>
<td>Countermelody..</td>
<td>Baritones</td>
<td>Tenor Saxophones</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trombones</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Bass............</td>
<td>Basses</td>
<td>Baritone Saxophones</td>
</tr>
<tr>
<td>8</td>
<td>Rhythm..........</td>
<td></td>
<td>Drums</td>
</tr>
</tbody>
</table>

Any further division of the musical factors or instruments would be a detraction from the simplification process. A specific musical item such as a fanfare might occasionally admit a greater division, particularly in the brasses, but, for all general scoring purposes, the eight-line score will suffice for outdoor arranging requirements.
of the marching band at both high school and college levels.

Every arranger develops certain procedures in the actual writing of the score. It is highly improbable that an absolute routine could be set forth, since arranging is a creative and inspirational craft. However, the more laborious task of notating the musical ideas demands that the arranger work in a systematic manner. The experienced arranger might consider the following routine entirely too elementary, but, upon closer examination, would probably find that he follows a procedure strikingly similar to it.

1) After selecting a proper key center for the selection, write the melody on the first staff. Do not elaborate!

2) Next, sketch in lightly a possible countermelody, keeping the original harmony in mind. Generally speaking, an arranger's first thoughts are his best ones. Adjustments can be made as the work progresses.

3) At this point, write the filler parts. The motion and direction of the harmonic part or parts is often in parallel agreement with both the rhythm and the rise and fall of the melodic line.

4) Pause here to check the work at the keyboard. If the sound is good when played on the piano, it will be so in the instruments. If the original harmony has been changed in an attempt to get a
smooth line, the harmonic revision should be checked before proceeding.

5) If the second harmony line is too high at any place for the horns, write a lower part for them by:
   a) Filling in the chord in the case of added-sixth, seventh or ninth chords.
   b) Using the next lowest chord tone.
   c) Doubling the melody at the lower octave.
   d) Reinforcing the countermelody. (rare)

6) If the separate clarinet part is desired, the arranger should write it at this point. It may be written in the manner of an upper countermelody and still serve as reinforcement for the first harmony.

7) Write the bass part. It will move primarily from the root to the fifth of the chord. The third of the chord may sound well in the bass when the melody is on the root or the fifth of the chord. Be sure to take advantage of stepwise motion.

8) Write the drum part. Keep in mind the possibility of a 1-, 2- or 4-measure pattern for use throughout the selection.

9) As a final check on the work, mentally sing or play each part through. The horizontal motion should be smooth and natural for easy memorization. Make sure that there are not too many
notes in the countermelody, bass or drum parts to be played with ease at a fast tempo.

10) Now copy the parts or write the transposed score.

As was pointed out earlier, dynamic markings, phrase lines and similar devices are not absolutely necessary for marching band music. The accent mark (>) should be used sparingly. A comma (') placed at the end of a phrase will indicate where a breath should be taken. Keep in mind that long phrases are impractical for a marching performance.
CHAPTER V

ILLUSTRATIONS AND REMARKS

The following illustrations and remarks are designed to demonstrate the simplified scoring techniques discussed in the previous chapters. The first illustration is designed to elucidate and explain some of the more common faults of the beginning arranger.

Figure 32, page 63, is a concert score arrangement of Reuben and Rachel done in the six-line technique. At first glance, this score appears to be satisfactory; the harmony is consonant and there are apparently no serious problems in range or rhythm. However, upon closer examination, the following objectionable features are revealed.

1) A better key selection would have been E-flat or F. Measure five, the peak of the melodic line, is above the comfortable range of both voices and instruments.

2) To facilitate a quicker and easier reading, this selection could have been arranged in cut-time.

3) The two harmony parts are rhythmically weak in measures one and three. The tied half-note nullifies the punch that could be gained by having these parts play the same rhythmic pattern as the melody.
4) The countermelody, on the other hand, should sustain or be varied in some manner in measures one and three instead of moving rhythmically parallel to the melody.

5) The second harmony line is too high for the horns in measures five and six. Notice the two-octave interval span between the countermelody and the second harmony in measure five. This open structure is likely to sound strained. The arranger should, if possible, avoid such a vertical structure, and in this instance, could have done so by writing a separate horn part below the 3rd cornet line. The countermelody could also be written in a slightly higher register at this point.

6) The interval skips of a seventh at the beginning of measures two and four in the first harmony part are the result of poor voice leading. Skips of this type can easily be avoided. Compare the following chord structures and note the easier motion of Figure 30b.

![Fig. 30a (as used)](image1) ![Fig. 30b (better)](image2)
If the arranger would assign the horns and alto saxophones to the fifth of the chord, D, and the countermelody instruments to the third, B, the cornets could be arranged in the following way:

Fig. 31

7) The horizontal motion of the harmony lines is not the best possible. In the last measure of the first harmony part, 'fa' moves up to 'sol' when, for natural resolution, it should move the half step down to 'mi'.

8) Instrumental writing often contains parallel fifths and octaves resulting from doubling the chord structure in one or more octaves. This is not objectionable, and furthermore, it is unavoidable in tutti scoring. However, the parallel fifths and octaves found in measure five are not good, since they are the result of poor harmonic structure. The harmony as used in measures five and six reads as follows:

\[
\begin{align*}
    \text{IV} & \quad \text{III} \\
    \text{IV} & \quad \text{V} \\
    \text{I} & \quad \text{I}_4
\end{align*}
\]  

A better harmonic structure at this point would be:

\[
\begin{align*}
    \text{I} & \quad \text{III} \\
    \text{IV} & \quad \text{I}
\end{align*}
\]

This sequence sounds better and lessens the likelihood of poor voice leading. In connection with chord choice, the first chord of the last measure is a
\[ V^7, \text{ and while it is a possible harmonization,} \]
\[ \text{a better choice would be II.} \]

9) The drum part contains the following errors:

a) Since it contains little or no pattern, memorization would be difficult.

b) The bass drum should play only on the strong beats, except occasionally at the cadence point. The tied bass drum note from measure four to five is an impossible technique. The only way that any drum can sustain is by rolling.

c) The cymbal crash in the last measure is badly placed.

d) The tied roll in the side-drum part, measures six and seven, would be hard to execute and is rhythmically absurd.

e) In this selection, a good one-measure rhythmic pattern could be established for both bass and side drum.

10) The basses should also play primarily on the strong beats. This bass part has too many notes.

11) A rather obvious mistake has been made by the arranger in placing a key signature on the drum staff. If the arranger does his own copying of parts, he will undoubtedly ignore the key signature and automatically correct it when copying the drum line. This error is pointed out here in order to stress the fact that if someone else does the copying, the arranger should be certain that his \text{score} contains all, and only those, markings necessary for proper performance.
Fig. 32  Reuben and Rachel
Figure 34, page 67, illustrates a more straightforward scoring conception of the same selection. Nearly all of the errors found in the previous arrangement have been corrected. By choosing the key of F as the tonal center, the arranger has placed the melodic line in a better range. At the same time, the second harmony part has been lowered, and although the 3rd cornets have been placed in a range that is almost consistently low, the part now lies in a very comfortable horn range. The arranger has employed the horns properly by using them to bolster the 3rd cornets, but unfortunately, to the disadvantage of the latter. It becomes increasingly apparent with every arrangement that separate harmonic lines are very often necessary so that both instruments might play in comfortable, audible ranges.

Notice the ease in reading made possible by use of the cut-time signature. The harmony has been improved. The countermelody, bass and drum parts have been simplified and will now be much more effective. In simplifying the countermelody, however, the arranger has failed to create a musically interesting line. The horizontal motion is rather static since it is confined largely to F and A.

The clarinets will play the first harmony part one octave higher. The arrangement of this part is not the most consonant possible. A better scoring technique is the use of the first harmony in a consonant relationship with the
melody. When the part is played an octave higher by the clarinets, its consonant sounds will produce a line of greater musical interest. Consequently, the second harmony must be carefully written so that the horizontal interest will in a sense equalize its lesser consonant relationship with the melody.

A device that will aid both memorization and sight-reading is the numbering of repeated measures when there are more than two. Observe the application of this technique in the first four measures of the bass part and the first six measures of the drum part in Figure 34, page 67. The small numbers written above each repeated measure refer to the actual number of measures the pattern is employed, counting the original written measure as 'one'. If a two-measure pattern were to be repeated, it could be written as follows:

Fig. 33

Although the drummer does not have the advantage of melodic contours to follow, his part may be written so that the rhythmic phrasing is obvious. The visual impact in Figure 33 above is immediately noticeable and the drummer can easily grasp the whole sixteen measures in a single
glance. The small circled numbers, 8 and 16, that appear at the ends of the staves signify the number of measures that the pattern is used. If the copyist finds it necessary to crowd additional measures onto each staff in order to conserve on manuscript paper, he should at least write an even number of measures on each staff rather than nine, eleven or thirteen. If a four-measure pattern is to be used, it would be better to write out the part completely. The visual impact can still be maintained, even in the absence of a pattern, if the part is copied in rhythmic phrase groups, generally eight measures to each staff on the small, march-size manuscript paper.
MELODY
1st Cors., Fls., Picc., Bells

1st HARMONY
2nd Cors., and Clarinets

2nd HARMONY
3rd Cors., Hrn.
Alto Sax.

COUNTERMELODY
Trbs., Bars., Tenor Sax.

BASS
Basses and Bar. Sax.

RHYTHM
Drums

Fig. 34 REUBEN AND RACHEL
Figure 35, pages 69 and 70, is an eight-line concert pitch score of the same selection. This is an effective arrangement but should not be used as a consistent scoring practice. Shifting the melody to the lower-pitched instruments for the first four measures affords temporary relief from the usual color. The harmonic structure of the last four measures serves a similar purpose in relieving the monotony of the original harmony, but harmonic elaboration can easily be overdone. Notice the arrangement of the drum part in the last four measures. It is rhythmically simple and serves also as a relief from the usual drum scoring.

The higher-pitched instruments need not be tacet in the first four measures, but a short breathing space now and then is welcome, particularly in the cornets.

Measure five contains parallel fifths as a result of the harmonic structure (III-IV-III). In this instance, they are not too objectionable because the horizontal motion is good. Notice the stepwise motion of the descending countermelody and bass lines, measures four through seven inclusive.
CLARINETS

1st CORNETS
(Fls., Picc.,
Bells)

2nd CORNETS

3rd CORNETS

HORNS
(Alto Sax.)

TRBS. & BARS.
(Tenor Sax.)

BASSES
(Bar. Sax.)

DRUMS

Fig. 35 REUBEN AND RACHEL
Figure 36, page 73, illustrates the best all-purpose scoring. The key center of E-flat places the melodic range well within the tessitura of all the instruments.

The following items should be noted and might be included in the technique of every arranger using the simplified style of scoring for the marching band.

1) Notice the unison treatment in measure seven.

2) The horns and 3rd cornets are separated for the first six measures. This puts them both in comfortable playing range. The horns are filling in the chord structure and, at the same time, are moving rhythmically and harmonically with the countermelody.

3) In the first and third measures, the cornets are arranged in unison, moving into harmony in the second and fourth measures as the melodic line ascends. This results in smoother voice leading as suggested in Figure 31, page 61. At the same time, this device reinforces the low melodic line.

4) The first harmony, being entirely consonant with the melody, will make a good clarinet line at the octave above. The 3rd cornet is adjusted to the less savory intervals in measure five, and yet maintains good horizontal motion.

5) In measures five and six, the bass line moves in half-note values. This adds support to the har-
monic color without any loss to the rhythm.

6) Added punch is given to the final cadence by momentarily stopping the drum pattern on the first beat of measure seven, to come in again on the last two chords.

7) The musical factors are purposely kept simple and straightforward. Arrangements that elaborate melody, harmony or rhythm often lose their intended flavor after repeated playings. A selection should seldom be transplanted from its original idiom. Added-sixth, ninth and augmented element chords are common to popular music and may be used when arranging a 'pop' tune. They are, however, entirely out of place in the arrangement of a folk-song.
The actual number of staves used in the transposed score depends entirely upon the manner of distribution of the instruments, both transposing and non-transposing. Once this point has been settled, all transposed scores will contain the same number of staves regardless of the number used in the concert score.

Figure 37, pages 75 and 76, illustrates a transposed score written from the concert score on page 73. The standard transposed score for band will often contain as many as twenty-four staves. By grouping the instruments in the manner suggested in Chapter IV, the transposed score can be reduced to twelve staves. It follows that the copying of parts is also greatly reduced.
Fig. 37 REUBEN AND RACHEL (transposed score)
Fig. 37 (continued)  REUBEN AND RACHEL
While this thesis does not propose to expound all the possibilities of scoring for the marching band, the essential points herein contained should aid and direct the arranger towards the best type of scoring for outdoor use.

Just as the research scientist attempts to find the simplest process for the manufacture of a certain drug or product, so the arranger must reduce his arranging procedure to the simplest techniques when scoring for the marching band. Intricate and more delicate scorings must be left for the discriminating tastes of the orchestral and concert band arranger.

Knowledge of the instruments and general musical craftsmanship are necessary, but sureness in the arranger's steps comes from experience tempered with musical common sense.
BIBLIOGRAPHY

White, William C., Military Band Arranging
New York: Carl Fischer, 1924

Adkins, H.E., Treatise on the Military Band
London: Boosey & Hawkes, 1945

Yoder, Paul, Arranging Method for School Bands
New York: Robbins, 1946

Andersen, Arthur, Practical Orchestration
Boston: Birchard, 1929

Lang, Philip J., Scoring for the Band
New York: Mills, 1950

Hind, Harold C., The Brass Band
London: Hawkes & son, 1934

Chidester, Lawrence, International Wind-Band Instrumentation, San Antonio: Southern, 1946

Hoby, Charles, Military Band Instrumentation
London: Oxford, 1936

Goldman, Edwin F., The Band's Music
New York: Pitman, 1938

Forsyth, Cecil, Orchestration
New York: MacMillan, 1937