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An Investigation of the Musical Instruments Mentioned in the Massoretic Text

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A. INVESTIGATION OF THE MUSICAL INSTRUMENTS 
MENTIONED IN THE MASORETIC TEXT

by

Kenneth A. Stewart

A thesis submitted in partial fulfillment of the 
requirements for the degree of Master of Arts 
College of Religion.

Division of Graduate Instruction 
Butler University 
Indianapolis 
1942
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>PROBLEMS, BASIS, AND ORGANIZATION OF THE STUDY</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>The Problems</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>The Basis</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>The Organization</td>
<td>3</td>
</tr>
<tr>
<td>II.</td>
<td>THE ORIGIN, CHARACTER, AND USE OF HEBREW MUSIC</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>The Origin</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Its Character</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Its Use</td>
<td>13</td>
</tr>
<tr>
<td>III.</td>
<td>MUSICAL INSTRUMENTS OF THE NEIGHBORS OF THE HEBREWS</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Musical Instruments of the Egyptians</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Musical Instruments of the Mesopotamians</td>
<td>24</td>
</tr>
<tr>
<td>IV.</td>
<td>HEBREW PERCUSSION INSTRUMENTS</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>מֵקֶדֶח</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>מִשְׁמַר, מַכּוֹב</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>נַפּ</td>
<td>34</td>
</tr>
<tr>
<td>V.</td>
<td>HEBREW STRUNGED INSTRUMENTS</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>מְנַשְׁתָּה</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>מִשְׁמַר</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>נַפּ</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>נַפּ</td>
<td>51</td>
</tr>
<tr>
<td>VI.</td>
<td>HEBREW WIND INSTRUMENTS</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>מְנַשְׁתָּה</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>מִשְׁמַר</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>נַפּ</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>נַפּ</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>נַפּ</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>נַפּ</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>נַפּ</td>
<td>65</td>
</tr>
</tbody>
</table>

77818
## VII. OTHER BIBLICAL TERMS

<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>כָּלִי־שָׁוֶּר</td>
<td>69</td>
</tr>
<tr>
<td>נַפְלִי</td>
<td>70</td>
</tr>
<tr>
<td>גּוֹבֵג</td>
<td>71</td>
</tr>
<tr>
<td>נְדוֹרֵי</td>
<td>72</td>
</tr>
<tr>
<td>בּוֹן</td>
<td>73</td>
</tr>
<tr>
<td>סֵפֹר</td>
<td>74</td>
</tr>
<tr>
<td>שֵׁרֹא</td>
<td>75</td>
</tr>
<tr>
<td>שֵׁרֹא אֱלֹהִים</td>
<td>75</td>
</tr>
<tr>
<td>שֵׁרֹא אֱלֹהִים</td>
<td>76</td>
</tr>
<tr>
<td>שֵׁרֹא אֱלֹהִים</td>
<td>77</td>
</tr>
<tr>
<td>שֵׁרֹא אֱלֹהִים</td>
<td>78</td>
</tr>
<tr>
<td>שֵׁרֹא אֱלֹהִים</td>
<td>79</td>
</tr>
<tr>
<td>שֵׁרֹא אֱלֹהִים</td>
<td>80</td>
</tr>
<tr>
<td>שֵׁרֹא אֱלֹהִים</td>
<td>81</td>
</tr>
<tr>
<td>שֵׁרֹא אֱלֹהִים</td>
<td>82</td>
</tr>
<tr>
<td>Terms in Psalm Titles</td>
<td>83</td>
</tr>
</tbody>
</table>

## VIII. CONCLUSIONS

<table>
<thead>
<tr>
<th>Summary</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarizations of Contents of Thesis</td>
<td>83</td>
</tr>
<tr>
<td>Specific Contributions of Thesis</td>
<td>84</td>
</tr>
<tr>
<td>Values of Thesis</td>
<td>85</td>
</tr>
</tbody>
</table>

## BIBLIOGRAPHY

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIBLIOGRAPHY</td>
<td>101</td>
</tr>
<tr>
<td>APPENDIX A</td>
<td>104</td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>105</td>
</tr>
<tr>
<td>APPENDIX C</td>
<td>106</td>
</tr>
<tr>
<td>APPENDIX D</td>
<td>107</td>
</tr>
</tbody>
</table>
CHAPTER I
PROBLEMS, BASIS, AND ORGANIZATION OF STUDY

For a number of years there has been a growing interest in the lives of the Hebrew people from the aesthetic point of view. This has been evident in a closer investigation of the Psalms and other poetical portions of the Old Testament. It is natural that along with this should come an increased interest in the musical standards of these people. References to music are frequent in their literature. One phase of the music of the Hebrews has presented itself as doubly interesting, e.g. their musical instruments.

I. THE PROBLEMS

The major difficulty presented in the study of the musical instruments of the Hebrews is the almost complete lack of any objective archeological evidence of such in Palestine proper. Most of the materials -- the wood, reed, hide, gut, and even much of the metal -- which went into the construction of the ancient instruments have not survived the climatic conditions of the land and have long since disintegrated. In the neighboring countries of Mesopotamia and Egypt such a study is made easier by the presence of many sculptured scenes which show musicians and their instruments,
but such as these were considered to be forbidden, among the Hebrews, by the second commandment. It is probable that this is the reason such representations were seldom made. In fact, the only representations of musical instruments which we can be assured the Hebrews themselves made are found on several coins of relatively late minting, and also a representation of a pair of trumpets found on the Arch of Titus.

Further difficulty is encountered with the realization of the fact that the Old Testament itself gives us no definite information as to the form, construction, or materials of most of the instruments which are mentioned upon its pages. Occasionally there is some term which is used with the instrument and which may give some information about it. Yet, such instances are indeed rare, and even when they occur they do not supply sufficient information.

II. THE BASIS

It is necessary then, under the circumstances, to attempt to arrive at conclusions regarding the identification of the musical instruments of the Hebrews from other sources than archeological representations or remains.
Conclusions must be based upon the etymology of the terms used for musical instruments in the MT, the few other descriptive words used in the text, such inferences as seem logical that may be derived from various translations, statements in other Hebraic and Jewish literature, the Church Fathers, analogies with present Palestinian instruments which might be survivals from antiquity, comparison with known musical instruments in the surrounding nations as revealed in archeological discoveries, and also consideration of those musical instruments used in the worship of modern Judaism. These are the chief sources from which we derive our ideas of the instruments which stirred or entertained the ancient Hebrews. It is true that such sources "fall very far short of affording us definite and precise information, and have given rise to an endless diversity of opinion on almost every detail," yet it is hoped that recent discoveries and studies will have added sufficient to this field so that this particular effort at identification will not be without value.

III. ORGANIZATION

Some general knowledge of the music of the Hebrews

is necessary for a proper understanding of the particular phase of that music with which this study is concerned. With that in mind a short discussion of Hebrew music as a whole will be made. This chapter will deal with the origin and character of Hebrew music as well as its use. Its use will be discussed from both the secular and the religious standpoints.

The neighboring lands to Palestine and peoples contemporary with the Hebrews furnish us with much valuable information in a study of the instruments of the Hebrews. They contributed much to a general knowledge of the music and musical expression in the lives of these people. It is advisable therefore, that consideration be given to the music of some of those making such contribution. A brief comment is made about Egyptian and Mesopotamian music and musical instruments.

The foregoing is to be classed as introductory. The main body of this thesis is concerned with the actual identification of musical instruments mentioned in the Old Testament scriptures. This main portion of the study will fall into four parts. The first three are the natural, logical classifications of types of instruments; viz., percussion instruments, stringed instruments, and wind instruments. The fourth
part will deal with such terms used in the Old Testament which are of questionable identification, but which have been considered in the past to have been musical terms. In each of these parts the various terms will be treated as fully as possible, and will be dealt with alphabetically (Hebrew), rather than by any arbitrary order on the basis of importance. Each instrument will be studied with three points in mind; identification, description, and use. In some cases certain scriptural passages will be cited or quoted in full. However, no attempt will be made in the body of this thesis to quote, or to include a citation of, all the scriptural passages which contain each term considered.

A short chapter of conclusions, which will attempt to summarize the results of this study and to suggest certain matters wherein it is felt that this thesis has made contribution to the fields of Semitic knowledge or Hebrew music will follow the main body of the thesis. The concluding chapter will also summarize material about which doubt remains.

A bibliography, listing source material used in the preparation of this thesis, follows the concluding chapter. An appendix, which gives a complete listing of the scripture
references for each term discussed, concludes the study.

The quotations from the English Bible are all taken from the American Standard Version unless otherwise specified.
CHAPTER II
THE ORIGIN, CHARACTER, AND USE OF HEBREW MUSIC

It would be impossible to gain an adequate concept of the musical instruments of the Hebrews without some general idea of Hebrew music as a whole. Although it cannot be anything but brief, it shall be the purpose of the chapter to present a general idea upon which the particularized study may be based.

I. THE ORIGIN

The origin of Hebrew music is obscure. The first Biblical reference to music is in Genesis.\(^1\) One of the three sons of Lamech, Jubal by name, is spoken of as being the father of "all such as handle the harp and pipe." Since Jubal's brother, Jabal, is spoken of as the father of those dwelling in tents and having cattle, it seems a fair assumption to link this first reference with pastoral work. It may be that Judges 5:16 suggests the earliest type of musician -- a shepherd calling his sheep or beguiling away the tedious hours of his watch. The song of Moses\(^2\) was spontaneous. But the record shows that Moses made a musical contribution

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\(^1\)Gen. 4:21.

as well as a legal one to his people. While lack of material for any conclusions on this point must be confessed, it is not easy to agree with so extreme a statement as that of Dickinson.

The Hebrews never invented a musical instrument. Not one in use among them but had its equivalent among nations older in civilization. And so we may infer that the entire musical practice of the Hebrews was derived first from their early neighbors, the Chaldeans, and later from the Egyptians; although we may suppose that some modifications may have arisen after they became an independent nation.1

It has been rather a fad in recent years to suggest that wherever there is discovered similarity between the Hebrews and their neighbors, it was always the Hebrews who did the borrowing. It is not the purpose of this study to enter into a discussion of the truth or falsity of such an assumption, but it should be said that a statement like the above is not to be taken unqualifiedly. However, the statement may be true. Certainly the Old Testament does not insist that we believe in the musically inventive genius of the Hebrews.

For the purpose of this study it is sufficient to note that nothing definite can be said in regard to the origin of Hebrew music -- we may only suppose that it came into being and developed in much the same way that it began and developed in other nations of antiquity.

II. ITS CHARACTER

Here again there is little basis for certainty, and as one would suppose, there is difference of opinion among scholars. There is no direct evidence of scales, melodies, harmonies, or other technical points. It is fair to assume that such finer points as counterpoint were unknown in Palestine as in other ancient lands.

There is no reason to suppose that music was further developed among the Hebrews than among the most cultivated of their neighbors. Their music, like that of the ancient nations generally, was entirely subsidiary to poetic recitation and dancing; it was unharmonic, simple, and inclined to be coarse and noisy. 1

Regardless of how ancient music might have sounded to ears trained to appreciate modern music it undoubtedly met the needs of the people of that age. Ecclesiasticus 44:5 suggests that music was regarded as a high and noble art. Appreciation of music is shown by the numerous archeological representations of neighboring lands of Palestine. Music, both vocal and instrumental, had a large place in the worship of the Hebrews. This fact is evidence of a general appreciation. Moreover, it may be said that among the Hebrews, as among other peoples, music was of such a character as to affect the actions of the people mightily. This may be seen

1Ibid., p. 20.
in the ecstatic results which were achieved by the prophets,\(^1\) the soothing effect of certain types of music,\(^2\) and the seeming natural desire to express musically great events or triumphs.\(^3\)

Differences of opinion among scholars are more evident when they begin to examine Hebrew music for evidences of technical knowledge. While, as has been stated, there is no definite evidence, there is some evidence which certain scholars feel points toward a knowledge of this or that technical matter. For instance, there are some scholars who insist that 2 Chronicles 5:13 is evidence that all of the music of the Hebrews was performed in unison.

Of one feature of Hebrew music we may be tolerably sure: it was rendered in unison. It was destitute of harmony or counterpoint. For its effect it would depend on contrast in quality of tone, on the participation of a larger or smaller number of singers, on antiphonal singing, so clearly indicated in many of the Psals, and on the coloring imparted by the orchestra.\(^4\)

The passage in Chronicles which is considered decisive reads, "...it came to pass, when the trumpeters and singers were as one, to make one sound to be heard in praising and thanking

\(^{1}\) Sam. 10:5, 10; 19:20. 2 Ki. 3:15.

\(^{2}\) Sam. 16:16ff.

\(^{3}\) Exo. 15:1ff; Jud. 5:1ff; etc.

Jehovah." This does seem a rather slender thread to hang so dogmatic a statement as "no harmony". As G. Stewart has said, "One might as well assign a technical musical significance to Chaucer's description of the singing of the birds 'al of oon accordes'."1 Further, while Dickinson admits that it is impossible to assume a real system of harmony, he does say,

That music was always performed in unison and octaves, as has been generally believed, is, however, not probable. In view of the fact that the Egyptians possessed harps over six feet in height, having twelve or thirteen strings, and played with both hands, and that the monuments of Assyria and Egypt and the records of musical practice among the Hebrews, Greeks, and other nations show us a large variety of instruments grouped in bands of considerable size, we are justified in supposing that combinations of different sounds were often produced.

Certainly the number of instruments listed as having a part in the worship services of the Hebrews must be taken into account here. It is hardly possible that all of these, especially the harps which demanded two hands and also the double-pipes, would be played together without departure from simple unison playing.

Although it has been insisted that the Hebrews knew nothing of musical notation a recent study by M. Raoul Guns-

2op. cit., p. 19.
bourg may be significant in this regard. Gunsbourg insists that harmony was pretty well understood by the Hebrews. He bases his argument on material discovered in the Bible of Kovno, an ancient parchment Torah. In this manuscript it seems that points similar to Hebrew vowel points were used for musical notation in much the same way that the ancient Greeks used letters of their alphabet.

Irrefutable proof was found in the presence at the beginning of the lines of Hebrew text of the word (words) and at the beginning of the mysterious lines of points, of the word, Chir, (chant). There was also what appeared to be a musical direction, Chir erov mat (sing very sweetly).

Such discussions as this are of interest, but need not be carried further, as they are not important for this particular study. Suffice it to say that we may assume, with a fair degree of certainty, that the character of the music of the ancient Hebrews was similar to that of their neighbors. There was really very little, if any, knowledge of what today would be considered the technical points. More of its practical characteristics will be noted in the discussion of the uses of Hebrew music which will follow.

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1"Ancient Hebrew Music," Living Age, Feb. 25, 1922, pp. 492f., cites the article of Gunsbourg which it says appeared in Figaro.

2The writer has been unable to find further reference to this Bible of Kovno.

3Living Age, op. cit., p. 493.
As Hebrew life is portrayed in the Bible, it is difficult to separate it into the classifications of the secular and the religious. A major source for our knowledge of these people is Biblical, and naturally the distinction is not so evident as among modern peoples. However, for the sake of clarity, attempt will be made here to make some such division so far as the use of music is concerned.

Secular. The earliest references in the Old Testament to music have no special religious connection as we have already seen. Rather they suggest the use of music in the semi-nomadic life of the sheep-herder in his comparatively lonely existence. Even when the lives of these folks, as recorded in the Bible, became more complex and communal, music was not always associated with religious things. One of the greatest authorities on music has said of these early Hebrews,

...unlike Babylonia and Egypt, Israel did not know professional musicians or professional dancers. Everyone practiced music; singing, playing, and dancing were common achievements.¹

While the later history of the Hebrews did bring forth a more definitely professional group of musicians, throughout their

history (Biblical), music also had a place in their everyday lives. Music seems to have been customary at even such ordinary events as that of bidding farewell to a departing guest.\(^1\) It was used extensively as part of the celebration over victory in battle.\(^2\) It has a place at feasts and convivial meetings.\(^3\) Marriages usually were not complete without their share of music.\(^4\) At various events of the king's court,\(^5\) and at various public ceremonies\(^6\) music made the occasions happier ones. It appears that on some occasions the young men may have met just for a period of music together.\(^7\) The ill-advised business of prostitution was aided through the possibilities of music.\(^8\) Nor were joyous times the only ones which made use of music. It has a place in mourning as may be seen from the instances of Jeremiah mourning for Josiah,\(^9\) and David for Saul and Jonathan.\(^10\) In other words, music had a significant place in Hebrew life.

**Religious.** The first Old Testament reference to music with a definite religious connotation is in Leviticus 25:9. Here are instructions that the sound of the trumpet

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2. Ex. 15:1ff; Jud. 5:1ff.
5. 2 Sam. 19:35; Ecc. 2:8.
6. 1 Ki. 1:40; 2 Ki. 11:14.
7. Lam. 5:14.
8. Isa. 23:16.
9. 2 Chron. 35:23.
10. 2 Sam. 1:18-27.
is to be heard in the land on the day of atonement. The reference appears to suggest not so much religious music but more the use of an instrument to signal that a religious rite is to be observed. Much the same significance must be given to the passage,

Also in the day of your gladness, and in your set feasts, and in the beginnings of your months, ye shall blow the trumpets over your burnt-offerings, and over the sacrifices of your peace-offerings; and they shall be to you for a memorial before your God.¹

Mention may be made here of two other references which suggest music used with a definite religious connotation, but which do not suggest organized worship. The first of these is to the use of music and instruments by the prophets.² The second is to the bringing of the ark of the covenant from Baale-judah.³ While these do not show much, they do suffice to show that even in the early period of their history the Hebrews recognized that music had a real place in religion. It may be said to have been a part of the expression of religious feeling.

The writer of the books of Chronicles attributes definite organization of Temple music, both instrumental and

¹Num. 10:10.
²1 Sam. 10:5.
³2 Sam. 6:5.
vocal to David. According to these passages there appear to have been twenty-four groups or schools of musicians, each group taught by twelve master-teachers. These twenty-four groups together formed three larger guilds, bearing the names of Asaph, Heman, and Juduthun. This plan was continued by Solomon as the actual Temple service was realized. The guilds, under Asaph, Heman, and Juduthun took part in the ceremony when the ark was brought into the new Temple. The superscriptions of certain of the Psalms suggest that, like all the minstrels of antiquity, these guilds not only sang but often composed the words for their songs. It appears that at least the sons of Asaph received fixed salaries. It is probable that at least a part of the time all those who worshipped sang with the Temple singers. It is also likely, from the parallelism of some Psalms, that part of the music of the Temple was of an antiphonal nature with the singers giving forth the first line and the congregation responding.

The reorganization of the Temple music seems to

1It is held by Millar, ("Music," International Standard Bible Encyclopedia, Vol. III, p. 2096), that this is a description of musical arrangements in the second Temple, but he admits that even so it sheds light on those adopted in the first Temple.

21 Chron. 25:1.  4Ps. 1, 79, 89, 44, 6Ps. 27:6.
32 Chron. 5:11-14.  49.
5Neh. 11:23.
have played a vital part in reformations of religion brought about in the time of Hezekiah\(^1\) and of Josiah.\(^2\) After the edict of Cyrus and the return of some of the Hebrew exiles the musical part of Temple worship was started again, along with other parts of the worship. Music had a prominent part at the dedication of the Second Temple\(^3\) and at the dedication of the walls of Jerusalem.\(^4\)

From the passages in Chronicles and Nehemiah it is seen that the singers were accompanied by a sort of orchestra consisting of psalteries, harps, and cymbals.\(^5\) According to the Mishna\(^6\) the Temple orchestra included psalteries, a minimum of two and a maximum of six; harps, a minimum of nine and no maximum limitation; pipes, a minimum of two and a maximum of twelve; and one set of cymbals.

There is a passage in Amos suggesting further use of music religiously, yet which was likely not concerned with the Temple.\(^7\)

Sacred songs were sung to the accompaniment of psalteries in the ancient Israelite sanctuary:

\(\text{Ch. 29:25}\)  \(\text{Ch. 34:12}\)

\(\text{Neh. 12:17}\)

\(\text{Chron. 13:8; 15:16, 19-21; 16:5;}
\text{Chron. 9:11; 5:12; 20:28; 29:25;}
\text{Neh. 12:27}\)

\(\text{Arachin II:3,5}\)

\(\text{Am. 5:23}\)
turies, at least as early as the middle of the eighth century (Am. 5:23), but if we believe Amos, this music was crude [sic.] and noisy.

Thus is seen the fact that music had a place of great significance in the lives of the Hebrew people, both secularly and religiously.

CHAPTER III

MUSICAL INSTRUMENTS OF THE NEIGHBORS
OF THE HEBREWS

Of great importance in the identification of the musical instruments of the Hebrews is some understanding of those of their neighbors. Most important of these were Egypt and Mesopotamia with both of which the Hebrews came in contact. Consequently this chapter deals with the musical instruments of these two countries. Unless otherwise stated, the material in this chapter comes from a recent English work of Curt Sachs, the great German authority on the subject of the history of musical instruments.¹ It may be stated here that this work is partly an English translation of his former German publications and partly based upon more recent material.

¹MUSICAL INSTRUMENTS OF THE EGYPTIANS

Research in the matter of the musical instruments of the Egyptians is helped by three main factors. First, the aridity of desert soil has preserved many representations and some actual portions of instruments. Second, magic was im-

important to the Egyptians. This took tangible form, among other ways, in the belief in the magical power of painting and sculpture. And third, philological sources are comparatively definite and rich. For instance,

Egyptian art works are explained by short, naive, texts written between the human figures wherever an empty spot is left. "He is playing the harp," they read, or, "He is playing the flute." Thus, we know the authentic names of practically all Egyptian instruments.¹

Percussion instruments. "Clappers" and concussion sticks which are very similar to the sticks called "bones" used by small boys today were in existence in Egypt before 3000 B.C. "Castanets" were developed from these, as really they are nothing more than clappers hollowed out to give fuller resonance. They were used comparatively late, as specimens have been preserved in Christian tombs in Egypt.

"Cymbals" were used in ancient Egypt, but appear to have been imported from Greece. Even at so late a time as that of the Coptic translation of the Bible there was evidently no native word to designate them and so this translation was forced to adopt the Greek word kymbala. Many of these Egyptian cymbals had a wide, flat brim, and pictures show that they were probably struck with a horizontal stroke.

Rather strangely, "drums" were absent until about

¹Ibid., p. 87.
2000 B.C. From then they are found to have been of both the cylindrical and barrel type. Generally they had wooden frames which were covered with skins made of leather. In playing, they were struck on both skins with the bare hands, not with drum sticks.

The "sistrum" was a term adopted to designate a certain shaken instrument. This particular instrument traveled widely. The kind that went abroad was called iba, or sehem. The sistrum was simply a handle plus a horseshoe-shaped frame with the closed end at the top. Large holes were made in the frame in which wires were inserted in such a way that they were free to slip back and forth and give out a jingling sound. Later, metal discs were added.

*Stringed instruments.* Two types of harp were known. The "arched harp," the first type, came from Jumer. It had a small body fitted with a long stick. The strings were attached to both body and stick. This harp was usually placed upon the ground, the strings running vertically and facing outward, with the stick next to the player. It has been discovered in various sizes. Some were large enough to accommodate nineteen strings. Other forms have been found which were much smaller and which rested upon a slanting leg and the knees of the seated harpist. The even smaller
"shoulder harp" was of this same general type. There was also the "angular harp," the second type, which came from Asia. This had a tall, narrow, upright body in one piece. This was sewn into a piece of leather, part of which served as a sound-board. This type of harp often numbered twenty-one or twenty-three strings.

The "lyre" had a shallow and usually square soundbox with two divergent and asymmetric arms. The arms were connected at the other end by an oblique crossbar from which the strings ran to the sound box. This instrument was played by the right hand scratching over all the strings with a plectron while the left hand would deaden those strings which were not supposed to sound. This instrument was never very common in Egypt. There seems to have been no name for it, except its Semitic name, k-en-r.

The "lute" had a long handle which pierced the small oblong body lengthwise. Usually it had only two strings. It was played with a plectron.

Wind Instruments. The Egyptian "trumpet" was an instrument of yellow metal, conical in form, and about two feet in length. It had a distinct mouthpiece. In addition to its use as a sacred instrument in the worship of Osiris it was also used for military purposes. The Egyptian name for this instrument was snb.
The "vertical flute" was made of metal or reed and was held much as the modern clarinet, rather than our modern flute. The instruments of this type discovered have varied in the number of finger holes, having from two to six. This instrument shared the name ma-t or mā-t with both clarinets and oboes.

The "double clarinet" of the Egyptian produced the tone from the vibration of a single beating reed, as do the modern clarinets. However, the Egyptian instrument was "double" -- i.e., it was made of two canes, each about a foot in length which were glued or tied along side of one another. Both were put in the mouth at the same time, one hand playing upon the finger holes of one cane and the other hand upon the other cane. There were from four to six finger holes in each. This instrument has continued down to the present day, Sachs says that it has existed for five thousand years "without the slightest change."¹ The Arabic name is zummara.

The "oboe" was an instrument making use of the double reed. It always seems to have been played in pairs, one a drone and the other carrying the melody. Usually it had only three or four finger holes.

A. Z. Idelsohn calls attention to the fact that in

¹Ibid., p. 32.
the period of Egypt’s greatness not all of these instruments were used religiously.¹ Until after the Hyksos, and the beginning of the decay of Egypt only stringed instruments were generally so used. After that period, however, percussive and wind instruments were used more and more. He also suggests that, while other instruments may have been used in religious rites, the sistrum was used only as a signal instrument.

II. THE MUSICAL INSTRUMENTS OF THE MESOPOTAMIANS

The task of scholars is here not so easy. It is true that many actual instruments and many depictions have been excavated, but the task of matching them to the few names given in contemporaneous texts has been exceedingly difficult.

A few ideograms can be traced back to pictures of things; an ear of corn, a bull’s head, a hand, a man, a door. In the advanced cuneiform script the original pictures are so schematized that they are unrecognizable, and it is impossible to deduce the form of an instrument from the particular arrangement of the wedges in the cuneiform ideogram or its name. If the ideogram had been recognizable even in their time, the Sumerians would not have helped the reader by occasional determinatives, that is, specifying prefixes to make up for the ambiguity of the phonetic symbols. With musical instruments, such determinatives indicate the material of which they are made: kus or su — "skin," gi — "cane," gis — "wood," urudu — "metal."²

²Jachs, op. cit., pp. 68f.
It may be said, that this is also true of the Egyptian language. Nevertheless, even when names can be identified, scholars have found that they face still further difficulties. They have discovered that different names do not necessarily designate different instruments, and that often, different instruments do not even have different names.

Percussion instruments. Much the same sort of instruments of percussion were in this locality, as were in Egypt. Concussion clubs and short clappers were both found. The sistrum was known, and seems sometimes to have had little metal pieces in addition to the wires. Two forms of cymbals were found. One form, more cone-shaped, was held horizontally and struck softly in a vertical movement. The other was held vertically and was struck with great vigor horizontally.

Four types of drums were used. One of these was a frame drum which was very shallow. This was found in many sizes. Another was a small cylindrical drum which was held in a horizontal position. A third was a large footed drum, and a fourth was a small drum with only one head. This last one was carried vertically on a belt worn by the player and was struck with either or with both hands.

Stringed instruments. In the harps the plane of the strings was always vertical, not parallel, to the sound board.
There were two types, "arched" and "angular." The angular type had a definite angle between the sound board and the arm, while the arched type was more like a bow. One type was always played with a plectron, the other with the bare hands.

Instead of having a neck with two symmetrical arms and a cross-bar, the Mesopotamian lyres had arms which were asymmetrical. The shorter arm was held next to the player. The instrument had eight or eleven strings, and was plucked with both hands.

The Mesopotamian lute had the usual small body and long neck. It also had many frets. The two strings were played with a plectron.

Mind Instruments. "Pipes" seem to have been rare. There were some "flutes" which were named ti-gi. It is likely that there were some reed instruments, and perhaps some of them were double. Concerning the "oboe" Sachs says,

Instead of a Sumerian term adapted to Akkadian, the oboe had the Semitic name halhallatu, equivalent to Hebrew Halil; written with Babylonian wedges, this word was read sem in Sumerian.¹

Concerning this particular type of instrument Sachs has this further to say,

¹Ibid., p. 72.
A second name impubu or eebubu, used in a text from Assur written about 800 B.C., is Semitic as well, and corresponds to Hebrew and Syriac aubub. The terms may have been synonyms, as Talmudian tractates asserted that aubub and halil in Hebrew designated the same instrument.\footnote{Ibid., p. 73.}

Idelsohn calls attention to a bas-relief of Ashuraklibul which shows the procession of an orchestra.\footnote{Idelsohn, \emph{op. cit.}, p. 6.} From this representation it may be learned that to the Mesopotamian the instruments of percussion were of minor importance.

There appear to have been more singers than instrumentalists.

It is rather strange that an orchestra no larger than the one pictured should have been the one sent to meet a victorious king on his triumphal return to the land. In this bas-relief only seven stringed instruments and two double-pipes are depicted.
CHAPTER IV

HEBREW PERCUSSION INSTRUMENTS

This chapter deals with the terms used in the Hebrew Bible for the various musical instruments of percussion. It is probable that percussive instruments were the first to be developed in all ancient civilizations. Rhythm has always been of prime musical importance. Percussive instruments help establish the rhythmic beat. The Hebrews had at least three such instruments.

I. י"א יד

Identification. The term י"א יד is found only once in the MT, in 2 Sam. 6:5. In American Revision it is translated "castanets."

And David and all the house of Israel played before Jehovah with all manner of instruments made of fir wood, and with harps, and with psalteries, and with timbrels, and with castanets, and with cymbals.

The term is translated κύμβαλα in the LXX, and sistra in the Vulgate. The LXX also uses κύμβαλα as the translation of other terms.

is probably from the verb יד, which has the primary meanings, to nod, to waver, to reel. It also
means, to **vibrate**, to **wave**, to **swing to and fro**, to **shake**.
The form **יָּתַנְתָּן** has been identified as the **pāpel** participle from this verb.¹

It might be suggested that the term ought to signify no more than one of the numerous types of rattling vessels which have been unearthed in neighboring lands. But these were too often merely children's playthings, as similar rattles are today, rather than ceremonial musical instruments. Objection to identification with the **sistrum** has been based primarily upon the fact that this instrument was used in the rites of Isis worship in Egypt. It has been felt that any instrument which was so wholly dedicated to such worship would not have found place in the worship of the Hebrews. However, recent excavations in Egypt have shown that sistra were often used entirely unconnected with cults of Isis.

It is probable then, that the **יָּתַנְתָּן** can be identified with the Egyptian **sistra**. This would fit both the root meaning of the term, as the sistrum was vigorously shaken, sending forth a jingling sound from its wires and metal discs, and also fits well with the Vulgate. The **LXX** appears to be confused here. Following the translation of **יָּתַנְתָּן** as **ἐὖ**

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(10) This correct, there is no term in the MT to correspond to κύμβαλους. If this identification is correct the ὁδόντα were instruments having short handles with oval frames. These frames had holes punched through them in which lengths of wire were inserted. Sometimes small metal discs were added to provide more noise. Occasionally the wires formed cross bars from one side of the frame to the other, and the discs placed upon them both inside and outside the frame. Always the wires fit loosely so that a maximum of jingling would result from any movement of the instrument.

Use. There is nothing in the MT to give any idea of the use of this instrument, except the fact that it was used in connection with other musical instruments, strings and percussion, and in religious procession. In other lands the sistrum appears to have been an instrument of joy, used primarily in processions and dances. It is likely that such was the case among the Hebrews.

II. שׁיר and פָּה

Identification. It seems correct to consider these as slightly different terms for the same musical instrument.
Both appear to be derived from the same root, and in two parallel passages^ one is used in one case and the other in the second. מְסָרָה is found three times in the MT. 2 Twice the LXX translates it κύμβαλα, and once α'κλοι. 3 The Vulgate in all three instances translates it cymbala. מְסָרָה appears thirteen times in Chronicles, Ezra, and Nehemiah. 4 Once the LXX translates it as a participle, rendering it κυμβαλίζοντες .5 In the other instances it is translated κύμβαλα. The Vulgate has cymbala in each instance.

Scholars agree on assigning both these forms to the basic root מְסָרָה, which according to Gesenius means, "to tingle," "to quiver," "to resound." 6 The dual ending of the one (מְסָרָה) points to a double-instrument of some kind. Sachs points out 7 that kindred terms in other oriental languages, such as zil in Arabic and Turkish, salasil in Arabic, and sil-sil in Tibetan, signify cymbals. In addition, it appears that usually the context in which מְסָרָה and מְסָרָה appear favors the identification with some such instrument as cymbals. 8 All these considerations taken into account,

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12 Sam. 6:5 and 1 Chron. 13:8 7 Sachs, op. cit., p. 122
22 Sam. 6:5, Ps. 150:5 (twice) 8 See especially 1 Chron. 15:19; 16:5, 42; Ps. 150:5
32 Sam. 6:5 4 See Appendix A
5Neb. 12:27
it is believed that the interpretation cymbals for both of these terms is correct. Finesinger\(^1\) suggests the possibility that in 1 Chronicles 16:5, Asaph is referred to as using castanets. This is possible, but it is hardly probable when we consider that Oriental music was, and is, far noisier than ours. The chances are that the leader really needed an instrument that would make more noise than castanets, in order to be adequately heard.

**Description.** First Chronicles 15:19 notes that the מְנַעֲרַיִם were made of brass. No Palestinian cymbals have been unearthed, but there have been some uncovered in Egypt and Mesopotamia.\(^2\) One pair of Egyptian cymbals measure five and one-half inches in diameter and have holes, presumably into which the handles were fitted. Assyrian cymbals have been found of both brass and bronze. Two kinds of Assyrian cymbals have been found. The flat disc-shaped, short-handed kind, and also some which are more cone-shaped, and which have comparatively long handles. The former are not unlike the cymbals used today in modern bands and orchestras. Josephus says, "the cymbals were broad and large instruments,

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\(^1\)Finesinger, *op. cit.*, p. 68.

\(^2\)Finesinger, *op. cit.*, p. 69f mentions scholars including representations of these in their works.
and were made of brass.\(^1\)

Descriptive terms used in Psalms 150:5 may suggest that the Hebrews knew and used two types of cymbals.

It is not possible to tell the exact difference between the יָדָכִים and the מִשְׁמְרָתָם, though it is most probable that the usual interpretation, i.e. that the former are smaller cymbals with a moderate sound, while the latter were larger with a loud sound, is correct.\(^2\)

יָדָכִים may be translated simply sound-cymbal or music-cymbal without the suggestion of type of cymbal. מִשְׁמְרָתָם should probably be translated noisy cymbals, or loud cymbals. But this passage does not necessarily imply two different types of cymbals. The structure of the verse may just be the parallelism which is so common in Hebrew poetry.

Use. We are again faced with the fact that the Old Testament tells us little by which we may determine the use to which these cymbals were put. It may be understood that they were instruments of praise and joy. They were most certainly used in connection with the religious services of the Hebrews. They were not considered to be solo instruments, as they are always mentioned in connection with other instruments. They were used at both the dedication of the founda-

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\(^1\)Josephus, *Antiquities*, 7:12,3.

\(^2\)Finesinger, *op. cit.*, pp. 67f.
tion of the Temple,¹ and the dedication of the wall of Jerusalem.² It is possible that the fact the cymbals are spoken of as having been given to the leaders of the singers,³ shows that they were used to give the beat and tempo to the musicians.⁴

III. ⁷paginator

Identification. Of the sixteen instances where the term ⁷paginator is found in the MT,⁵ it is translated μαθηρίου only once by the LXX.⁶ In the other cases the LXX renders τυμπάνου. The Vulgate consistently renders it tympanum. The term appears to be derived from the verb ⁷paginator, which has the basic meaning, to strike, to beat. In Psalms 68:25 (MT 68:26), the feminine plural participle ⁷paginator is found. This is translated playing with timbrels. Literally, of course, it would simply be strikings or beatings. The term ⁷paginator is quite evidently related to the Arabic duff which is a small frame drum about ten inches in diameter and some two inches in depth. It has been usually played by women, to accompany

¹Ezra 3:10 ¹⁵See Appendix A
²Neh. 12:27 ⁶Job 21:32
³1 Chron. 15:19
⁴Stewart, op. cit.

The identification of \textit{q\textupsilon} with some kind of drum would appear to be correct since it is taken for a drum or tamborine by nearly all investigators. It is suggested that \textit{q\textupsilon} in the MT is most likely a general name for all small drums, including the tamborine-like instrument.\footnote{Finesinger, op. cit., p. 64.}

**Description.** Sachs says\footnote{Sachs, op. cit., p. 108.} that the old Semitic frame drum, to which class belong the Hebrew \textit{q\textupsilon} and the Arabic \\textit{dur}, was generally made of a wooden hoop which probably always had two skins, and which did not have any jingling contrivances or sticks. Among the Egyptians and Mesopotamians there were many varieties of drums. Some were round, some were oblong. Some were very shallow and some were deeper. It is likely that some had metal rings in the rim. They have also been found in many different sizes. With several of the biblical texts in which the term is found it is evident that the \textit{q\textupsilon} was often an instrument small enough to be portable, especially since it was used so often by women. Consequently it may be said that probably the term \textit{q\textupsilon} had best be considered as applying generally to the small hand-drum.

**Use.** The \textit{q\textupsilon} was not a solo instrument. It is
almost always mentioned in connection with other instruments. It does not appear to have been used in the worship service of the Temple, but that does not mean that it had no place in the religious music of the Hebrews. Contrariwise, it was definitely used in religious processions. It was an instrument for merriment and gladness, and also revelry. It was used in times of exultation and triumph. It was an instrument associated with prophets and prophetesses. Perhaps it had special place in the arousing of ecstasy of these groups.

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12 Sam. 6:5; 1 Chron. 13:8; Ps. 68:25.

2Gen. 31:27

3Isa. 5:12.

4Ex. 15:20; 1 Sam. 10:6.

5Ex. 15:20; 1 Sam. 10:5.
CHAPTER V

HEBREW STRINGED INSTRUMENTS

This chapter deals with the terms used in the Hebrew Bible for the various stringed instruments. The Hebrews had at least four of this type. It is thought that stringed instruments developed gradually from the simple bow-like instrument after some ancient hunter noticed the pleasing sound given forth as the arrow was sent upon its flight. The idea for use of a sounding-box may have been born when the end of the bow rested one time by chance upon a hollow log. Stringed instruments have had a major place in the music of all civilizations.

I. חֵן

Identification. In the Bible the חֵן is the most frequently mentioned stringed instrument of the Hebrews. The term appears forty-two times in the MT. In translation we find more variation for this Hebrew term than with the percussive instruments. Of the forty-two times, the LXX renders חֵן twenty times with the term κιθάρα, seventeen times

1See Appendix B.
with κινύρα, four times with ψαλτήριον, and once with ὀργανον. The Vulgate, on the other hand is a bit more consistent. Thirty-seven times it has cithara, twice it has lyra, twice psalterium, and once organum. The κιθάρα and κινύρα are related terms. It is known that the Greek κιθάρα resembled the lyre, which consisted of a rectilinear-shaped sound box from which rose two arms, connected above by a cross-bar. The strings ran from the bar to the box. The etymology of the term ἡρτος is unknown.1 There are, roughly speaking, three groups of opinions regarding the identification of ἡρτος. There are those that consider it a harp, those that consider it a lute or guitar, and those that consider it like the lyre or κιθάρα. It would appear that, in the light of the LXX especially, the last opinion is more nearly correct. This is the opinion of Sachs, who says, "The last doubt is silenced by the fact the κινυῖρ [sic.] designated the same lyre in Egypt."2 It is not likely that the LXX would translate ἡρτος so many times by κιθάρα, the character of which was so definitely known, any instrument which was radically different from the κιθάρα. In addition, against the identification with the lute, it may be said that so far there does not seem to be any evidence on the monuments that the

1Gesenius, op. cit.
2Sachs, op. cit., p. 107.
lute was used by Semitic peoples. There has been one representation of a lute-shaped instrument in Nineveh, but this one example is not adequate proof of popularity. Consequently, it is probable that the נגון is not to be identified with the lute. It will be seen later in this thesis that the harp is given in the MT the term, נב, which is often mentioned in connection with the נגון. In view of this fact the latter should probably not be identified with the harp. Further, it is noted that, in Assyrian monuments, the קְדֵבָּרָה is played along with the harp, just as in the MT the נגון was used with the נב. There are numerous lyre-shaped instruments to be found on monuments. One of the oldest known of such representations is Beni-Hasan monument dated c. 1900 B. C. It shows a Semitic immigrant using a plectrum in the right hand and apparently deadening some strings with the left. A second representation is on an Assyrian relief showing three Semitic captives playing lyres under the eye of an Assyrian guard. There has also been found a picture of an Egyptian girl of the 18th Dynasty using a lyre-shaped instrument. It is considered likely that this instrument was of Semitic origin rather than Egyptian or Grecian. In fact, James Millar definitely says
that it was originally a Semitic instrument.\(^1\)

There are other evidence which lend support to this identification of נגון with the Greek κιθάρα or lyre. Sachs\(^2\) calls attention to the fact that in Abraham Ben Meir ibn Ezra's commentary on Daniel it is said that the נגון is shaped like a candelabrum. He continues,

The old Jewish candelabrum, with its parallel branches arranged in a semicircle can easily be compared with Cretan, Mycenaean, Cyprian, Phoenician, and early Greek kitharas -- that is, those lyres which chronologically and geographically come near to the Hebrew lyre. No doubt this small, rounded lyre was held in a slanting position, the upper end away from the player as all Syrian lyres of that time.

Evidence of late Jewish coins, though not in itself conclusive, must not be overlooked. Those which have been stamped with representations of lyre-shaped instruments have been assigned to 142-135 B. C. or to 66-70 A. D.\(^3\) On one side of these coins is a kithara-like instrument of three or more strings with a sound-box resembling a kettle. It is true that these coins are of a late date, and that the form of the instruments shown on them has probably been modified some by Greek influence, but so conservative a people as the Jews would hardly have adapted a completely foreign object for their coinage.\(^4\)

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\(^{3}\)Millar, *op. cit.*
Briefly, in view of the evidence of G, in view of the arguments mentioned above, and also in view of the fact that the Semitic monuments and coins portray instruments of the type of the Greek κύθάρα and αὐρα, it is reasonable to conclude that the kinor resembled these instruments.¹

Description. Consideration of the identification of the גית has brought out some points in regard to its description. It has been stated that the גית was a lyre-like instrument, which means that it was made up of a sound-box, two arms, a cross-bar, and a number of strings. The representations found in Assyria and Egypt, mentioned above are of this type. They are not identical, but are enough alike to be considered the same type of instrument. They appear with different numbers of strings, and some appear to have been played with a plectrum. The sound-box, pictured on the late Jewish coins is a kettle-shaped one, while the frame is nearly square. There appear to be from three to six strings. The comment of ben Ezra is that the גית was shaped like a candelabrum. The Greek κύθάρα had a rectilinear-shaped sound-box. It is likely that the Hebrew גית was not always the same shape exactly. But it seems correct to say that any difference was generally some modification of the above. Josephus says that the גית had ten strings.²

¹Finesinger, op. cit., p. 36.
²Josephus, op. cit.
There is little in the MT to help in a description of this instrument. However, both 1 Kings 10:12 and 2 Chronicles 9:11 inform us that it was made of wood.

It may be understood further, that the כנור was portable, and so must have been comparatively light. It could be played while it was carried in processions or dances. Some scholars insist that it was played without use of a plectrum, in spite of Josephus' statement to the contrary.¹ Their assertion is based upon the instance of David's playing before King Saul, "with his hand."² However, Sachs believes that the mention of David's playing with his hand would be unnecessary if that was the normal manner.³ He further notes that David did not sing when he so played.

His point is that the use of the plectrum, as stated by Josephus, shows that the כנור was an accompanying instrument. This appears to be born out in the MT.⁴

Use. It has been noted that the כנור was used in processions and dances. These were probably both religious and secular.⁵ It was a popular instrument at banquets.⁶

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¹Ibid.
²1 Sam. 16:23.
³Sachs, op. cit., p. 106.
⁴1 Chron. 16:42; 2 Chron. 9:11; 1 Ki. 10:12.
⁵Gen. 31:27; 1 Sam. 10:5.
⁶Isa. 5:12.
and was definitely a token of merriment.\textsuperscript{1} Its function as an accompanying instrument has also been noted. It had a real place in the worship of the Hebrews. It was one of the instruments David chose for a use in the Temple worship.\textsuperscript{2} It found place again in the reform under Hezekiah.\textsuperscript{3} The Psalms suggest the quality of praise and joy of this instrument.\textsuperscript{4} During the dejection of some of the Hebrew captives in Neo-Babylonia the harps were no longer played.\textsuperscript{5} Truly it was an instrument of joy, of hope, and of gladness.

II. \textsuperscript{271}

Identification. Twenty-six times the term \textsuperscript{271} is used in the MT, designating a musical instrument.\textsuperscript{6} In the LXX the term is generally rendered either \textit{váb'la} (fourteen times), or \textit{waltípíon} (eight times). The usual translation in the Vulgate is \textit{psalterium} (seventeen times), although \textit{lyra} and \textit{nablium} also appear. Obviously \textit{váb'la} and \textit{nablium} are transliterations. Of the times the term is translated, \textit{waltípíon} and \textit{psalterium} are in the majority. These terms point to the

\begin{itemize}
\item \textsuperscript{1}Isa. 24:8; Ezek. 36:13.
\item \textsuperscript{2}1 Chron. 16:5; 2 Chron. 5:12.
\item \textsuperscript{3}2 Chron. 29:25.
\item \textsuperscript{4}Pss. 33:2; 43:4; 57:8; 71:22; etc.
\item \textsuperscript{5}Pss. 137:2.
\item \textsuperscript{6}See Appendix B.
\end{itemize}
harp.

The basic meaning of the Hebrew word appears to be a skin, or a skin-bottle. This fact has suggested to some scholars the bag-pipe, but this instrument was not well known in antiquity.

The  עני has been considered to be the lyre, the harp, the lute, the Assyrian dulcimer, a bow-shaped instrument, and even a wind instrument. Sachs says that both the Greek word ηαλτήρων and its Latin equivalent designate the vertical angular harp, but this is not substantiated. The body of this type of harp had a sound-box rising above the string holder, rounded and completely covered with a skin, which Sachs says, is reminiscent of an oriental skin bottle. Finsinger agrees with this identification, holding that, since the עני has been identified as the cithara and lyre, it would be strange if the harp, which was such a common instrument in the East, had been unknown to the Hebrews.

That עני is the harp is confirmed by Egyptian sources. Egyptian bin. t, harp, is the equivalent of עני. As is well known, Semitic i often becomes i in Egyptian (e.g. ib < íb < íb < ỉ = heart). In bin. t, the t is the feminine ending; hence bin. < bin < nob < עני. That bin. t denotes harp is seen from the fact that the word is often written with

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the harp as determinative. This comparison should, I think, settle definitely that ἡλιθία is a harp, nothing else. ¹

The ἡλιθία has been identified with the dulcimer by some scholars. ² This identification has been based, mainly, upon the fact that the dulcimer’s Arabic name, santir, appears to be a corruption of the Greek ψαλτήριον, which is the equivalent of ἡλιθία. However, this must not be considered conclusive, since the term ψαλτήριον seems sometimes to have embraced a whole class of stringed instruments. ³ It seems to have been applied especially to every stringed instrument played on with fingers of both hands, instead of by one hand and a plectrum held in the other. Therefore, the Greek name for harp was also ψαλτήριον. ⁴ The very fact that ψαλτήριον appears to have been a generic term makes it especially appropriate for the harp, which varied greatly in both size and shape. Since the harp was not very common among the Greeks themselves, it is understandable that the LXX should have transliterated ἡλιθία more often than attempting to translate.

Josephus says that νάπλα was played without a plectrum, which fits the idea of it being a harp. ⁵ Ovid also

²G. E. Post, op. cit., also James Millar, op. cit. ⁵Josephus, loc. cit.
³Liddell and Scott, op. cit.
considered the rášša to be a harp. The Church Fathers make a distinction between instruments with a sound-box below and those having the sound-box above the strings. They include the סָגָה in the latter class. While both large and small harps are known to have existed in Egypt, all appear to have had the sound-box in the base. However, among Semitic people in Assyria, on a bas-relief at Kouyunjik there are depicted seven harps which have the sound-box above. Consequently, the Assyrian harp was probably similar to the Hebrew סָגָה. However, the סָגָה must not be limited to a harp of any definite size or number of strings. Rather, it should be considered a general word for instruments of the harp type.  

Description. The fact that סָגָה refers to harps in general, rather than to any specific type, does not mean that it is impossible to get a general idea of its description. It has already been stated that it probably had its sound-box above as the Assyrian harps. This was one of its two distinctive features. The sound-box usually had the flat surface downward, the convex arching above. The strings were not stretched athwart the sound-box, but rather were perpendicular, or else at an acute angle to the resonant surface.

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1 G. E. Post, loc. cit., cites Ovid, Ars. Am. iii, 327.
2 Ibid., cites Augustine on Ps. 42, Jerome on Ps. 149:3, and Isidore, Etym. III, xxii, 2.
3 Ibid., p. 461.
4 Finnesinger, op. cit., p. 42.
running down to a supporting arm at the other end. Those depicted on the bas-relief at Kauyunjik were portable, supported by a belt. The sound-box sloped upward and forward from the player. It was pierced by holes, and strings descended from it to a cross-bar or string holder beneath which the loose ends fell. The performer played with both hands, without a plectrum, while marching. It has already been noted that Josephus says that the \( \mathcal{H} \) was played without the plectrum. He also says that it had twelve strings. Sachs notes that the Talmud implies that the strings of the \( \mathcal{H} \) were of thicker gut than those of the \( \mathcal{C} \), and that the \( \mathcal{H} \) was the louder of the two.\(^1\) He concludes from this fact that the \( \mathcal{H} \) must have been larger and also lower in pitch.

Biblically we should note that, along with the \( \mathcal{C} \), the \( \mathcal{H} \) is said to have been made, at one time at least, of algum wood.\(^2\) The reference to the number of strings being only ten,\(^3\) does not necessarily mean that Josephus should be discounted. It has already been shown that there likely was little uniformity among the harps. Archeological discoveries in Assyria have shown that harps had different numbers of strings. The statements in the Psalms should be understood

\(^1\) Sachs, op. cit. p. 116; cites Qinnim III:6 and Arachin II:6.

\(^2\) 2 Chron. 9:11.

\(^3\) Pss. 33:2; 144:9.
to mean only that sometimes the כְּלוּר had ten strings. The expression כְּלוּר יְִּנֶּהוּ הָּעָה,¹ has been understood by some scholars to indicate that the כְּלוּר had some sort of an opening in its resonator or sound-box. The accuracy of such an assumption is not to be assumed without further evidence, as the word יִנֶּהוּ is used for the sound of as well as for an opening in, in other instances as well.²

Use. The כְּלוּר was used mainly by the Hebrews as an instrument in their worship services.³ Like the נַנְנָן it was primarily an instrument of accompaniment.⁴ It was used in concert with other instruments,⁵ and may sometimes have been used alone.⁶ It had a part in the dedication of the walls of the re-built Jerusalem.⁷ It was placed in the Temple service at the command of David himself.⁸ It found place, along with other instruments, in the music of wandering bands of prophets.⁹ The כְּלוּר was also used as a secular instrument. In the triumphant return of Jehoshaphat after the Moabite defeat it was a part of the victory parade.¹⁰ It appears to

¹Am. 6:5. ²Ps. 144:9. ³Gen. 45:21; Ex. 17:1; Ps. 49:14. ⁴Neh. 12:27. ⁵All the references to כְּלוּר in Psalms and Chronicles see Appendix B. ⁶1 Chron. 15:16. ⁷1 Chron. 13:8; 1 Ki. 10:12; 2 Chron. 9:11; etc. ⁸1 Sam. 10:5. ⁹10:2 Chron. 20:28. ¹⁰1 Chron. 13:8; 15:16; 28:2 2 Chron. 25:1; Pss. 57:8; etc.
have been a mark of luxury and revelry, of feasting and banqueting.\textsuperscript{1} Isaiah mentions it was played at the feasts of those who "regard not the work of Jehovah."\textsuperscript{2}

III. פֶּשֶׁר

**Identification.** The term פֶּשֶׁר usually means ten. It appears to be used of a musical instrument three times, all in the Psalms.\textsuperscript{3} In two of these instances,\textsuperscript{4} the term is used in connection with_THevity, as noted in the discussion of that instrument. This may imply that the_THevity sometimes had ten strings. However, in the third instance in which the term פֶּשֶׁר is used of a musical instrument it appears to present a different idea. Psalm 92:3 (MT 92:4) reads, אֵלָיו תְבוּק עַשְׁרוֹן פֶּשֶׁר which probably is best translated "on עַשְׁרוֹן and on תְבוּק." Nearly all translators identify the עַשְׁרוֹן as some instrument with ten strings.

The תְבוּק was a separate instrument and probably neither a lyre nor a harp, as its name is mentioned with the תְרוּעָל in the 33rd and 144th Psalms, and with both תְרוּעָל and קִינּוֹר, in the 92nd Psalm. There is but one possible family of stringed instrument left that could be furnished with ten strings: zithers.\textsuperscript{5}

Sachs continues his discussion of the identification of the עַשְׁרוֹן with the Phoenician zither, citing an illustrated

\begin{itemize}
\item \textsuperscript{1}Isa. 14:11; Am. 5:23; 6:5.
\item \textsuperscript{2}Isa. 5:12.
\item \textsuperscript{3}Pss. 33:2; 92:3; 144:9.
\item \textsuperscript{4}Pss. 33:2; 144:9.
\item \textsuperscript{5}Sachs, op. cit., p. 117.
\end{itemize}
letter which is attributed to St. Jerome. This letter was addressed to Dardanus. In it, under the title psalterium decachordum, the artist depicts a rectangular zither, exactly the shape of the Phoenician zither, and writes in explanation: 'It has ten strings, as it is written; I shall praise you on the ten-stringed psaltery.' He also adds that the instrument had four sides. Then characteristically, he says that the ten strings meant the ten commandments, and the four sides the four Gospels.\(^1\) It is not probable that the דּוֹקִיאס was the lute as the necks of contemporary Egyptian and Assyrian lutes were too narrow to accommodate the strings. It is probable that it was the zither.

**Description.** Nothing is known from the Biblical record of the description of this instrument except that it had ten strings. However, representations of the Phoenician zither are to be seen in an ivory pyxis of the 8th century B.C. The front is a small rectangular frame with ten strings running across, parallel to the smaller sides. The instrument is held upright in the hands of the player.\(^2\)

**Use.** This was an instrument of praise and thanksgiving. Probably it was used primarily in religious services, as such is the suggested usage in the Biblical passages

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\(^1\)Ibid., p. 118.

\(^2\)Loc. cit.
in which the term is found.

IV. כּוֹסְפָּרִים

Identification. This instrument is mentioned, with a number of other instruments, four times in the book of Daniel. It finds place in this thesis, not because it is thought to have been a Hebrew musical instrument, but, because it is mentioned in the Hebrew Bible. The LXX renders it ψαλτήριον in each instance. The Vulgate has psalterium, and the Peshito version has כּוֹסְפָּרִים. There seems to be no doubt as to its identity with the Greek ψαλτήριον. But the problem of knowing just what instrument the term ψαλτήριον signifies is a difficult one. The כּוֹסְפָּרִים has been variously identified. Heffer and Weiss take it to refer either to כּו ו or כּו ו ד; Jahn identifies it with ככ; Millar and others take it to mean the harp. Stainer regards it as the Assyrian dulcimer. It appears best to hold to the conclusion, reached in the discussion of the ככ , that the ψαλτήριον is probably a designation for a class of harps. However, just which type this כּוֹסְפָּרִים of Daniel represents, it is impossible to say with any degree of accuracy. It is probable that Stainer's identification with the Assyrian dulcimer, also considered above, is incorrect.

1Dan. 3:5,7,10,15.  
2Finesinger, op. cit., p. 45.  
3Ibid., p. 46.
Description. No description is available, unless one definitely makes the identification with some form of harp. This is evidently what Driver has done, since he is quoted as saying that the "harp" is a "stringed instrument of triangular shape" with the "sounding board above the strings."¹ This is quite possibly correct, but there is no evidence which enables one to make a definite statement regarding either its type, or appearance.

Use. There is no information as to its use. In the only place where it is mentioned in the MT, it appears to have been used, along with other instruments, in the sounding of a particular musical signal of some sort.

CHAPTER VI

HEBREW WIND INSTRUMENTS

Musical instruments of this third general classification were also used by the Hebrews. Six terms are used in the MT which may be considered as referring to wind instruments.

I. ɵ

Identification. This term is found only six times in the MT. It is usually rendered αὐλὸς in the LXX, although it is mistranslated once as ἐχορευν ἐν χοροῖς, and tibia in the Vulgate. Of the two possible root stems, ฿, to dance, and  %% to bore through, to perforate, the latter appears the more likely to be the root. As a matter of fact, it is stated that it could not be from ฿. The word might have been applied because of the hollow character of reed out of which it was made, or from the fact that it was actually pierced, or bored, either lengthwise, in order to make a hollow instrument, or just in the making of finger holes.

While there seems to be no disagreement about 汭

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11 Sam. 10:5; 1 Ki. 1:40 (bis); Isa. 5:12; 30:29; Jer. 49:36.
21 Ki. 1:40.

Firesinger, op. cit., p. 50.
being a wind instrument, there is some difference as to just what type of wind instrument. Finesinger, identifying it with the flute, cites Pfeiffer, Jahn, et al., as agreeing, though some of these would suggest that it might have been the double as well as the single flute. Stainer's identification of the \( y\) with the oboe is also held by Sachs. Finesinger admits the possibility that \( y\) may have been a general word for flute, either single or double, and either oblique or direct, but says, "There is hardly any doubt that it signifies flute." On the other hand, while ancient artists never depicted a flute, all over the ancient world pipers used the double oboe. He holds that the translations of the LXX and the Vulgate (\( \alpha\) and tibia), since these are terms associated with the oboe, add weight to the belief that the Hebrew pipes must have been oboes rather than flutes. The term \( y\) is not used of any Bible story before time of Saul. Attention may be called to the fact that during the period of the monarchy, all the pipers pictured in the surrounding countries were playing the double oboe.

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1 Loc. cit. 3 Sachs, op. cit., p. 119.
2 Sachs, op. cit., p. 119.
Many different varieties of pipes are seen on the monuments of Egypt and Mesopotamia, but there are no means of deciding which variety is the one used by the Hebrews. Perhaps several were used. There seems to be no way of telling for sure, whether the תַּדָּנ was an instrument with a double reed (oboe) or without any reed (flute). There are evidences which appear to suggest either.

**Description.** Long, slender, reed instruments with various numbers of finger holes have been found in both Egypt and Mesopotamia. They have been found singly and also in pairs, glued or tied together. Some appear to have had mouthpieces, others do not. Just which of these types may have been used by the Hebrews it is impossible to tell.

**Use.** The תַּדָּנ was used for a variety of purposes. It could suggest joy and praise, it could also express sadness. It was used for both secular meetings and for certain types of religious meetings. It was in use at feasts and at mourning. It found a place among the musical instruments of the wandering bands of prophets, and it appears to have been used sometimes in religious processions to a place of worship. However, there is no mention of it being used among

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1 Isa. 5:12.
2 Jer. 49:35.
31 Sam. 10:5.
4 Isa. 30:29.
the instruments which took part in the worship of the Temple.

II. קְשַׁרָה

Identification. This term is used some twenty-nine times in the MT. The LXX translates it σάλπιγξ and the Vulgate translates it tuba. The etymology is uncertain. Gesenius postulates a root, קָשָׁר, which he says perhaps is onomatopoetic.

It has been said that this instrument, the קְשַׁרָה, is the only Hebrew instrument of which we have an indubitably authentic representation. The reference is to that representation found on the Arch of Titus. The קְשַׁרָה is considered by most scholars to be a metal horn. It is unnecessary to try to equate the קְשַׁרָה with some instrument of Egypt or Mesopotamia, because of this universal agreement, however, such equation would not be difficult, as many such horns have been discovered in these lands.

Description. In 70 A.D. the Romans erected an arch for the Emperor Titus after his conquest of Jerusalem. They depicted on this arch his triumphal return to Rome with certain holy objects which he had taken from the Hebrew Temple. Among these depictions was that of a trumpet. This Hebrew trumpet corresponds to the many trumpets depicted on Egyptian

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1 See appendix C.
2 Gesenius, op. cit., p. 348.
3 Rinesinger, op. cit., p. 63.
4 Loc. cit.
reliefs and paintings. Representations have also been found on various coins. The Jewish historian, Josephus, gives a description of this instrument which corresponds closely with that instrument depicted upon the Arch of Titus. He says,

Moses was the inventor of the form of their trumpet, which was made of silver. Its description is this: in length it was little less than a cubit. It was composed of a narrow tube, somewhat thicker than a flute, but with so much breadth as was sufficient for admission of the breath of a man’s mouth; it ended in the form of a bell, like common trumpets.1

There are two references in the MT which suggest that the ἄλαμπδα was made of metal. In 2 Kings 12:13 this instrument is listed among other vessels which were made of either gold or silver, and Numbers 10:2 expressly says that the trumpets were made of silver at the command of Jehovah to Moses. There is no logical reason to think that the description given by the historian Josephus, and the depiction on the Arch of Titus, are not accurate.

Use. The MT suggests that there were two trumpets made by Moses, which were to be used for the calling together of the congregation and for the journeying of the camps.2 Its use as an instrument for signaling remained a major use. They were to be taken and used in campaigns of war, and also to sound a general alarm.3 The LXX use of ἐμηρμέριζον, war-trumpet,

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1Josephus, op. cit., 3:12,6. 2Num. 10:8-10; 31:6; 1 Chron. 16:8. 3Num. 10:2. 2 Chron. 13:12; Hos. 5:8.
as a translation, is a good rendering. They were to be used "in the day of your gladness, and in your set feasts, and in the beginnings of your months.... over your burnt-offerings, and over the sacrifices of your peace-offerings."  

They sounded both the death of Athaliah, and the triumphant return of Jehoshaphat.  

David made use of them in his religious services.  

They were heard at the dedication of the foundation of the second Temple.  

They were also used in combination with other instruments.  

The הָרָכִּים was an instrument of challenge and of praise, as is seen in LXX.

III. הָרָכִּים

Identification. As in the case of the מִסְרָאֵל, this instrument is mentioned only in the book of Daniel, in which it is found four times.  

In each instance it is rendered סְגוֹנִים by the LXX and fistula by the Vulgate. It is probably derived from פָּרֶשׁ meaning to hiss, to whistle. The LXX indicates that the Panspipe is meant.

Although it is difficult to tell whether syrinx comes from a Semitic stem or vice versa, it is most likely that syrinx is a Semitic loan word. Even if mashroqita and syrinx are not connected there is no doubt as to what instrument we are here dealing with. The rendering of the versions shows that the syrinx

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1 Num. 10:10.  
2 Kings 11:14ff.  
3 2 Chron. 20:28.  
4 1 Chron. 13:8; 15:28; 16:6; 42.  
5 Ezra 3:10.  
6 2 Chron. 5:12f.  
7 Daniel 3:5, 7, 10, 15.
was meant; while on the Semitic side, too, the etymology from *sarag* may very well point to the Pan's pipe, because of its ready tone. 1

The "Pan's pipe" has been considered a Panpipe by Pfeiffer and Forkel; a flute by Worman; a double flute by Ambros; and the equivalent of the *lily* by Jahn. 2 Sachs says that it designates any form of pipe, though probably a double oboe. 3 J. D. Prince believes that it is either like the *lily* or some development from the double flute. 4 Of all these terms the syrinx, or Panpipe, appears to be the best identification. The hissing effect which is more pronounced in playing the syrinx than these other instruments, fits the root meaning best. 5 The syrinx is mentioned in Homer (Il. 10:13; 18:526) as the shepherd's flute.

**Description.** The syrinx, or Panpipe, was originally supposed to have had seven reeds or pipes. However, this was not always the case later, as some have been found in which the number of reeds is as high as thirteen. In some cases the pipes or reeds were bound by a cord, and in others they were inserted in a sort of box, which kept them together. Usually the reeds varied in length, but occasionally they were of uniform length. The method of blowing also varied.

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2 *Loc. cit.*


Usually it was blown into at the top, like the modern mouth-organ, but sometimes it appears to have been blown across the top, like the flute.\(^1\)

**Use.** Originally for the solace of the lonely shepherd, there is nothing in the MT to inform us of its use among the Hebrews, except that it, in the account given in Daniel, was one of a number of instruments which were sounded together as some sort of a signal.

**IV. \(\text{יִמְּרוּאָה}\)**

**Identification.** The MT has this term in four places.\(^2\) It is rendered in three different ways in the LXX, twice as \(\text{ψαλμός}\), and once each as \(\text{κύθαρα}\) and \(\text{θραυσμόν}\). The Vulgate is consistent with the rendering \text{organum}. The matter of identification becomes even more complex if one turns to the Peshito Version, which uses four different terms to render \(\text{יִמְּרוּאָה}\).\(^3\) The etymology of the term is only conjecture, and as such cannot be decisive in any identification. Gesenius and others hold that it is possibly from \(\text{יִמְּרָא}\) a verb which means to lust, to love.\(^4\) If that be true some instrument should be sought which is noted especially for its sensuous or appealing tones. On the other hand, the conjecture has

\(^1\) Finesinger, loc. cit.
\(^2\) Gen. 4:21; Ps. 150:4; Job 21:12; 30:31.
\(^3\) Gesenius, \textit{op. cit.}
been made that 띠_mean _to blow in._ Consequently, 띠 may have been a term used of any wind instrument, or of wind instruments in general. This interpretation would do no violence to any of the passages in the MT in which the term is found, and two of the passages seem to favor some such interpretation.

The 띠 has been identified with the Panpipe by Pfeiffer, Forkei, Jahn, Engel, Kitto, and Worman; with the bagpipe by Zinner and Cornill. More recently, however, identification with the flute or with wind instruments in general has been favored. There is no evidence to support the view that 띠 was either a Panpipe or a bagpipe. Proof has been attempted by appealing to the Hebrew version of Daniel 3:15 where 띠 is given as the rendering of הִּשְׁעִיתוּן. Millar then makes the equation, הִּשְׁעִיתוּן equals bagpipe, with which this thesis disagrees, and arrives at his conclusion that the 띠 was some sort of a Panpipe. He does, however, admit the possibility that 띠 should be considered a general term for wind instruments. Sachs holds to the identification of 띠 with the flute. He bases his conclusion upon the root meaning of 띠, to love, saying,

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1 G. E. Post, op. cit. 4 Millar, op. cit.
2Finesinger, op. cit., p. 53. 5 Local. cit.
6Sachs, loc. cit.
that of all the wind instruments, the flute was the most closely connected with the love charm. He continues, "The dark color of the word ugab more properly reflects the hollow, oo-like timbre of a long, wide vertical flute."  

The Targum has always rendered חלוב as עגב which according to Gesenius means a flute. This may be considered to be a fact adding weight to Sach's conclusions.  

However, in the light of the two MT passages which seem to favor a less concise rendering of חלוב as woodwind instruments in general, we are inclined to favor that interpretation. It is very likely, however, that in the places where the term appears to apply to a single instrument, the flute is meant. It has been suggested that it is not unlikely that originally חלוב was the name of the flute, and then later became a more general term for any woodwind.

**Description.** In the light of the above, it may be seen that a description of the חלוב is really out of the question. However, if one were to follow Sachs, in his identification with the flute, the חלוב might be described as a long, wide, reed or metal instrument, held vertically instead of horizontally as are modern flutes. Such flutes

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1Loc. cit.  
2Finesinger, loc. cit.  
3Sellers, op. cit., p. 40.
have been discovered in both Egypt and Mesopotamia. The number of finger-holes is variable.

Use. So far as the MT is concerned, the הַֽיָּד was used in addressing praise to Jehovah. However, it seems to have been employed for secular purposes also. In the latter use it is found at times of mourning, and also at times of rejoicing. There is no mention of its use in the Temple worship.

v. מִיָּד

Identification. Aside from its appearance in Daniel, in the form מִיָּד, the term is used in the MT only twice where it may apply to a musical instrument. The term itself is used otherwise many times in the MT, but always with its original significance as the horn of some animal or metaphorically of power or of greatness, or to refer to the horn-like projections at the corners of the altar. There is no doubt that the reference in Joshua 6:5 refers to the מִיָּד as a musical instrument, or perhaps, more properly, as a signal instrument. Here it is definitely a horn, upon which a blast was blown. Its use in the other passage, 1 Chronicles 25:5, has been questioned. However, from the fact

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1 Ps. 150:4.
2 Job. 30:31.
3 Job. 21:12.
4 Daniel 3:5, 7, 10, 15.
5 Josh. 6:5 and 1 Chron. 25:5.
6 Gen. 22:13; Dan. 8:5,8,9.
7 Deut. 33:17; 1 Sam. 2:1, 10; Lam. 2:17; etc.
8 1 Ki. 1:39; 50; 2:28; etc.
that the term is used in a passage which deals with musical instruments and song, it is possible that the term is so used here, denoting the ram's horn. On the other hand, Gesenius suggests that the term here may be used to give the idea of dignity.1 By some scholars it is equated with the רעוש.2 They suggest that in Joshua 6:4,5 the terms seem to be synonymous. As a result, the two terms are regarded as signifying the same instrument. It appears that such identification is correct, particularly if one agrees that the רעוש, in addition to being simply a horn made from a ram's horn, may also have meant any kind of horn, either ram, or neat, or metal.3 In either case there is no doubt about the רעוש being a very simple horn.

Description. Whether the רעוש was the natural horn of some animal, or was made of metal, it is likely that the shape was much the same; i.e. it curved in the natural way of the animal horn, with no attempt to straighten it out. It is thought that usually there was no separate mouthpiece. This made the instrument very difficult to sound.

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1Gesenius, op. cit.
2Sachs, op. cit., p. 112; Millar op. cit.
3Tinesinger, op. cit., p. 63 states that this latter is possible, by citing Rabbinic material to show identification with neat horn, and calling attention to the Greek use of κέφατίνα instead of κέφατίνα in translating רעוש.
Use. In the passages which definitely use the term רֶֽזֹּף as a musical instrument, it appears to have been used only as a signal instrument. As a matter of fact, in the Daniel passage, it is used in connection with other musical instruments not necessarily signal instruments.\(^1\) Yet, in this passage, these other instruments also appear to be employed for the purpose of signaling.

For further treatment of the horn, as it was known among the Hebrews, see the discussion of the רֶֽזֹּף below.

VI. רֶֽזֹּף

Identification. The term רֶֽזֹּף occurs seventy-two times in the MT.\(^2\) It is rendered in the LXX by two words, σαλπιγγίς (42 times), and κέρατον (25 times).\(^3\) The Vulgate also uses two terms, buccina (38 times), and tuba (29 times). Technically it can hardly be considered a musical instrument, as it was in reality a signal horn. There appears to be no doubt as to its identity. It is the only instrument of the Hebrews which has come down through the years until the present day, and still finds use in their worship. That the term רֶֽזֹּף sometimes denoted a ram's horn is evident, not only from the form of the instru-

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\(^1\)Dan. 3:5, 7, 10, 15.

\(^2\)See appendix C.

\(^3\)Finesinger, op. cit., p. 55 notes that the LXX mis-translates this word in four places; Jos. 6:2, 3; Hos. 8:1; 1 Chron. 15:28, and omits it altogether once.
ment today, but also from its etymology. The word is connected with the Assyrian sapparu or ram. This may be further seen in the expression, ובו מעבר התיבה, where והו means ram. Let it be said, however, that this very phrase may imply that there were horns made of other materials. As has been noted above, there are some who equate רותא with דַּרְדַּר. Finesinger notes the general agreement of scholars, saying that with few exceptions, all have taken the רותא to be the ram's horn. As exceptions, he mentions Schneider and Engel who considered it to have been made of metal, at least in some cases, and Risheh, who thought that, particularly in later times, it was made of metal. However, that may be, it seems probably that רותא originally meant ram's horn.

Description. In modern Judaism the רותא is often straightened and flattened by being heated, but it is thought that originally it retained its natural shape. It may or may not have had a mouth-piece. It was difficult to play, and hence did not find place among the regular musical instruments of the Hebrew Temple worship. This may be the reason that the verb יָדַע is generally found with it instead of יָדַד. The former connotes more the idea of to strike; i.e. much as today the words hit a tone are used. Sachs mentions the four blasts which are sounded by the רותא;
1) an appoggiatura on the tonic prefixed to a long blow on the fifth, 2) a rapid alternation between tonic and fifth, 3) a quavering blow on the tonic, ending on the fifth, and 4) a longer sustenuto on the 5th, always played at the end.

Use. The "trumpet" was widely used as a signal instrument. Its call preceded the fall of Jericho.1 It was sounded while Moses met God upon the mountain.2 It was to be sounded to call the people to the day of atonement.3 The small army of Gideon found these trumpets to be of use in terrifying the enemies of the Lord Jehovah.4 It was employed to notify the people of the triumphs of Saul.5 It heralded the procession with the ark of the covenant, led by David.6 It was blown at the coronation of Solomon.7 At the rebuilding of the wall of Jerusalem under Nehemiah’s leadership, a guard was kept, and the people were to gather for battle if they heard the sound of the "trumpet".8 It was to be blown as a signal for some of the Hebrew festivals.9 It seems also to have been used at times in praising Jehovah.10 Its mention in

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1Josh. 6:20. 2Ex. 19:16, 19; 20:18. 3Lev. 15:9. 4Judges 7:16ff. 51 Sam. 13:3. 62 Sam. 6:15. 71 Kings 1:34ff. 8Neh. 4:18ff. 9Ps. 81:3. 10Pss. 98:6; 15:3.
the prophetic books appear to signify generally an instrument that sounds an alarm, signaling trouble and hardship ahead.¹

¹See Appendix C for occurrence in prophetic books.
CHAPTER VII

OTHER MUSICAL TERMS

In addition to the terms already considered, which refer to musical instruments, and about which it is possible to come to some fairly definite conclusions, there are a number of terms in the MT which have been considered as being musical terms. Some of these have actually been identified with certain musical instruments by scholars. But in reality all of them are debatable terms. It cannot be expected that this thesis will be able to settle the questions relating to each of these terms, but it is hoped that some contribution may be made in that direction. The terms will not be treated alphabetically. It may be found necessary to give considerable space to some of them while others may be disposed of quickly. Let it be kept in mind that for the most part, these are debatable, questionable terms.

1. ש"ת ש"ת

The first of these musically related terms to be considered is made up of two words, and appears to be a general term for all kinds of musical instruments without regard to type. This combination of words is found eight times in the
MT. 1 In six instances the translation is *instruments of music*, once *instruments for the songs*2 and once *musical instruments*.3 The term כִּ֖לֶם, applying to instruments of music, is found in three other places in the MT. In 1 Chronicles 16:42 it is used alone, in the plural, כִּ֖לֶם with the instruments. In 2 Chronicles 29:26, 27 it is used with the proper name גָּ֖דֶר, and is translated *instruments of David*. Finally, in 2 Chronicles 30:21 is found, כִּ֖לֶם which should be translated with *loud instruments*, or with *instruments of strength*.

It is possible that the rendering of כִּ֖לֶם by the term *music* is not absolutely accurate. If so it would appear that a better translation is *song*. Consequently the phrase, כִּ֖לֶם גָּ֖דֶר, may imply that among the ancient Hebrews instrumental music was used largely for the accompaniment of singing.4

II. גָּ֖דֶר

In the titles of three of the Psalms appears the term גָּ֖דֶר.5 It appears to be a feminine adjective-noun from the Hebrew word for Gath, but its meaning is uncertain. It has

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1 See Appendix D. 4 Prince, op. cit.
2 1 Chron. 16:42. 5 Pss. 8, 81, 84.
3 Neh. 12:36.
been explained to be a musical term;\(^1\) either a Cittite musical instrument, following the Targum on Psalm 8, which gives, "on the kithara which was brought from Gath;" or a melody or march which was popular in Gath. The LXX renders the term as concerning the vintage, and may possibly have regarded these particular psalms as having been sung to some popular melody related to a festival of the wine-press. H. G. May, who has made a special study of some phrases in Psalm-titles, favors the view that \(\text{getNode}(\text{Ps} 16)\) should be considered related to some such festival, rather than to some musical instrument.\(^2\) Although it is impossible to be sure, this conclusion does appear to be more correct. It may be considered allowable on the basis of the root meaning of the term. On the other hand, there is no real basis for the equation with a musical instrument.

### III. \(\text{getNode}(\text{Ps} 16)\)

This term, in various forms, is found in a number of places in the MT, where it seems to be a musical term.\(^3\) It is derived from \(\text{getNode}(\text{Ps} 16)\), to touch, to strike, which is also given the added meaning in Gesenius, to play on a stringed instrument. Participial forms of this verb are translated

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1 Millar, op. cit.

2 H. G. May, "getNode(\text{Ps} 16)....!", In the Superscriptions of the Psalms, AJSL, January 1941.

3 See Appendix D.
minstrel,\textsuperscript{1} player,\textsuperscript{2} and was playing.\textsuperscript{3} In 1 Samuel 16:16 it is used definitely of playing upon a stringed instrument, because the instrument (\textit{כּוֹנֶה}) is mentioned. In Psalm 68:25 the בָּרָי are contrasted with the maidens who are playing other instruments (יְהוֹנֹד). Since the verb from which the term בָּרָי is derived has the rather definite connotation of playing on a stringed instrument, it is probable that בָּרָי means stringed instruments in general. Even in cases where it is translated simply as song, the connotation may be that the song was accompanied by some stringed instrument.\textsuperscript{4} This general conclusion finds agreement among scholars.\textsuperscript{5} Sachs thinks that בָּרָי, as it appears in Psalm-titles, probably means the "thing struck" or the melody, rather than an instrument.

IV. בָּרָי

This term appears only in the title of Psalm 5. Most former conjectures have considered it to have been a musical instrument of the wind type. Gesenius suggests the possibility of it being from the root בָּרַע, and so having reference to some wood-wind instrument.\textsuperscript{6} Another conjecture is that it

1Ps. 68:26. 1Sam. 19:9 5Millar, \textit{op. cit.}, May, \textit{op. cit.} p. 70.
21Sam. 16:16. 4Ps. 77:6; Job 30:9; Ps. 69:13; Sachs, \textit{op. cit.} p. 125.
Lam. 3:14. 7Gesenius, \textit{op. cit.}. 
is derived from \( \text{πμπ} \), to get, to possess, or to inherit.\(^1\) This latter is the meaning given the term by the LXX which translates it κληρονομιον, inheriting. Therefore, the term may possibly designate simply some ancient melody which was known to the Hebrews, but is not known to us. This is in accord with the recent study of May. He concludes that the phrase \( ..\text{πυ} \) usually has an allusion to a melody and should be considered a tune title.\(^2\) On the other hand, it is suggested by Millar that since we have considered \( \text{πμπ} \) as a general term for the stringed instruments, perhaps the term \( \text{πμπμπ} \) should be considered as a general term for woodwind instruments.\(^3\) The margin of the American Revision of the Bible renders "wind-instruments" for this term.

For a long time this term puzzled translators. It is found only in Ezekiel 28:13 in a list of precious stones, and jewelry. It has been held by some scholars, that this term referred to some sort of a double flute. It is rendered \text{pipes} in both the Authorized Version and the American Revision of the Bible. The verse in which the term is, reads:

\(^{1}\)See Gesenius, op. cit.\(^{2}\)May, op. cit., p. 80.\(^{3}\)Millar, op. cit.
Thou wast in Eden, the garden of God; every precious stone was thy covering, the sardius, the topaz, and the diamond, the beryl, the onyx, and the jasper, the sapphire, the emerald, and the carbuncle, and gold: the workmanship of thy tabrets and pipes was in thee; in the day that thou wast created they were prepared.

This older rendering is now disputed by some. As a matter of fact the difference dates back as far as Jerome, who explained that לְפִּי meant merely the setting of precious stones. Gesenius agrees with this idea, stating that both לְפִּי and אָגֶר in this verse are to be considered as technical terms of "jeweller's work." Such a conclusion seems perfectly satisfactory with לְפִּי by itself, since the root meaning of the verb from which it was probably derived, לְפִּי, is to excavate, or to hollow out. But it seems to demand that אָגֶר be translated somewhat improperly even though the root means primarily to beat. The LXX does not suggest either musical instruments or technical jewelry terms. Rather, it appears to suggest places where jewels and gold are stored. καὶ ἔπειτα ἐτύμλωσὲν τοὺς ὄνομαροὺς σου καὶ τὰς ἀμφίθεκες σου should be translated "and you filled up your treasures and your storehouses with gold." Since the LXX does not favor the theory that these Hebrew words were musical instruments, in the light of Jerome's understanding, and the context, it appears that

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1 See especially Millar, loc. cit., and Post, op. cit.
2 Gesenius, op. cit.
the explanation of technical terminology is probably the more satisfactory, although it is best not to be dogmatic on this point.

VI. אַרְמָוָה

This term, which is found only in Daniel, is a much disputed one. The LXX renders it in each instance ὑμφωρία, and the Vulgate does likewise, symphonia. In the light of this fact נֵמְשָׁה is generally taken to be the equivalent to the Greek ὑμφωρία. But just what the term ὑμφωρία meant is difficult to determine. Forkel, Gesenius, Engel, and Barry take it to be the bagpipe, while Saalschutz considers it to have been the double flute, and Jahn considers it a reed-pipe or flute. The ancients appear to have known the bagpipe, but whether or not its name was ὑμφωρία is not clear. According to Montgomery, Driver suggests that the term ὑμφωρία early meant simply harmony, and not until later did it denote the bagpipe. Driver's point is well taken, as the original meaning of the word, according to Liddell and Scott, was concord or unison of sound; also, harmonious unison of many voices or sounds, concert. This same reference work, however, states that ὑμφωρία came to mean a single musical instrument,

1Dan. 3:5, 10, 15.
2Finesinger, op. cit., p. 56.
3Montgomery, op. cit., p. 203.
4Liddell and Scott, Greek English Lexicon.
citing, in addition to Daniel 3:5, the use of the Latin symphonia for a kind of drum, Isidore, Etym 3.22.14, and a wind instrument, Pliny, HN 8.157. In the pages of the Journal of Biblical Literature, and the Monist, Philips Barry and G. F. Moore carried on a discussion as to whether or not ὑμβούβια meant bagpipe, and whether or not the bagpipe was a Hebrew instrument. No agreement was reached.

Recently Sachs has come out with the statement that ὑμβούβια did not mean bagpipe, or any other single instrument. He says that the word signified simultaneous sound, playing together, orchestra, or band. He continues his discussion of the term with the following: 3

About 600 A.D. a learned Spaniard, St. Isidore of Seville, connected it for the first time with a special instrument... he defined symphonia as a hollow wood covered at either end with a stretched skin, which musicians struck on both sides with sticks....

Thus, the symponia might be interpreted as a drum with two skins of different diameter and pitch, if one insisted that the Aramaic word meant a single instrument. But it would be hazardous to follow a single written source written about seven hundred and fifty years later in a foreign country, and to neglect the other sources of earlier, contemporaneous and later times, which agree in calling symphonia a band, not an instrument.

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2Sachs, op. cit., p. 84.
3Ibid., pp. 84f.
If this suggestion were accepted then this passage in Daniel would mean something like this: "As soon as you hear the sound of the horn, the pipes, the lyre, the horizontal and the vertical harp, the full consort and all kinds of instruments...." This sounds strange to modern hearers. But Sachs goes on to say that oriental music was, and is, much different from occidental music, and that often in the Near East the orchestral manner of playing is for the various instruments first to sound separately, and then to play together. He concludes with the suggestion that in Daniel the passages in which the term is found refer to an orchestral performance, rather than to a description of the orchestra. However, Sachs appears to have overlooked the fact that the passage in Daniel connotes, not an orchestral concert, but a signal. There is a possibility that the reference is to a concert, the beginning of which was the signal to bow down and worship the image, but this is not probable. It might be that signals were sometimes given in the way Sachs suggests, i.e., one instrument sounding after another, and then all together in harmony. This, however, is only conjecture. The problem of this term must be considered unsolved as yet.

\[1\text{Ibid.}, \text{p. 85.}\]
VII. דְּשֶׁך

This term is found only in Exodus, where it represents some ornament or charm which was to hang upon the hem of the high-priest's robe. The etymology appears to be the verb דְּשֶׁך, meaning strike, hit. It is agreed that this term meant some small bell or jingle. It probably should not be considered as a musical instrument of the Hebrews, as we have no reference of it as such in the MT.

VIII. רַפְּל

There seems to be general agreement that רַפְּל is simply a loan word from the Greek language signifying the Greek κιθάρα. This term appears only in Daniel.

IX. דַּבְּרָה וְשָׁרוּת

This phrase occurs only once, in Ecclesiastes 2:8. It is translated musical instruments, and that of all sorts, in both the Authorized Version and the American Revision of the Bible, although the latter gives the marginal note, "Or concubines very many. The meaning of the Hebrew is very uncertain." According to Gesenius the meaning is unknown, although נַשָּׁה may be the feminine of יְרָשׁ, lord. If that is

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1 Ex. 28:33, 34; 39:25, 26.
2 Sachs, op. cit., p. 108, says, "Here, as always, the bell is used as a defence against evil spirit."
3 Loc. cit., and Gesenius, op. cit.
4 Gesenius, op. cit., Post, op. cit.
5 Dan. 3:5, 7, 10, 15.
correct the translation, a wife and wives, may be considered a fair one, the singular being referred to the queen; and the plural to the king's other wives and concubines. This is, of course, only conjecture. The Lex is still different, having oinochoe kal oinochoas, which should be translated, "cup-bearer and female cup-bearers." It should be said that a variant reading is given in some editions of the MT. However, these do not solve the problem. The solution to the matter is not apparent, but, it may be said that the phrase should probably not be translated as "musical instruments and that of all sorts."

X. קודי

This term appears only in Daniel 6:18. It is there rendered in the English translations, instruments of music. The American Revision gives the marginal translation, dancing girls. It appears to be from the root קידי, which has the meaning, to thrust, to push, to strike, and may possibly refer to the striking of the strings of a musical instrument. On the other hand, Gesenius points out that the term is related to words in Arabic which mean concubine, and that such might be its meaning here. Any of these translations is

1 See 1 Kings 11:1ff.
2 Gesenius, op. cit.
arbitrary, and must not be insisted upon. The LXX has ἐσεόμαρα δόκειν ἐισονεπαν αὐτῷ, -- which is neither music nor women, but food or meat.

XI. ὑ'λό (ἁλό)

The form ἁλό is found in Psalm 45:8, and the form ἁλό is found in Psalm 150:4. The LXX translates as Χορδαι. The American Revision has, stringed instruments. Perhaps both forms are plurals of ἁλό, which means part, or portion. If this is correct, the plurals may be considered as sometimes meaning strings. Probably Finesinger's conclusion that the terms do not mean any specific instrument, but are general names for stringed-instruments, in the sense that the term strings is sometimes used today, is correct.¹

XII. ὅλῳ

The term ὅλῳ or ὅλῳ is found four times in Daniel.² The LXX has οἰμπίκη while the Vulgate has sambuca. The American Revision of the Bible renders it sackbut. On the etymological side there is the problem of determining whether the Greek οἰμπίκη was a loan-word from the Hebrew or the Hebrews borrowed it from the Greeks. This has not yet been

¹Finesinger, op. cit., p. 48.
²Dan. 3:5, 7, 10, 15.
settled. Liddell and Scott give as meanings of ρασάκην, "a triangular musical instrument with four strings," and "an engine of like form used in sieges." They suggest also that the term is of barbaric origin. There have been various conjectures as to the identification of this instrument. Engel considered it sort of a guitar; Kitto thought it a species of lyre or harp. Norman thought it a triangular instrument, or even the Assyrian dulcimer. Gesenius considered it a triangular instrument with four strings. Stewart called it a sort of small harp. However, it is to Sachs and Riehm that credit for the probable identification must go. Riehm states that among the Egyptians is found an instrument which appears to resemble a ship and ladder joined together. And Sachs, going a bit further than this, states that the sabka was a machine used in war. It was a specially constructed boat with an upright ladder. He sees a similarity between this boat and ladder and the horizontal angular harp. It is fairly certain that the English translation sackbut is incorrect, as the sackbut was a wind instrument, much like the modern trombone. Its equation with the Hebrew term ρασάκην is probably due only to some similarity in sound. It seems

1 Liddell and Scott, op. cit. 3 Gesenius, op. cit.
2 Finesinger, op. cit., p. 47. 4 Stewart, op. cit.
5 Sachs, op. cit., p. 83; and Finesinger, loc. cit., who cites the contribution of Riehm.
quite probable that the קָדִיוֹ was a small, horizontal angular harp, as Sachs has suggested. However, this angular harp may be equated with the four-stringed triangular instrument. Millar adds the suggestion that the קָדִיוֹ was a favorite of prostitutes, and that in Egyptian mural pictures such women are often pictured carrying a small triangular harp.¹

XIII. מְםַנְנֵי

This term has been called the most disputed musical term of the Hebrew language.² It occurs only in 1 Samuel 18:6. The LXX translates it κύμβαλα and the Vulgate has sistrum. Both the Authorized Version and the American Revision have instruments of music, but the latter notes in the marginal rendering, "Or triangles or, three-stringed instruments." From the etymology some instrument involving the number three is pointed to, such as, according to Gesenius, "a (three-stringed? three-barred? three-cornered?) musical instrument."³ Pfeiffer considers them to refer to castanets; Forke takes the word to apply to a three-stringed instrument; Jahn thinks it is the triangle; Haupt identified it with a small triangular harp; and Stainer thinks it is the lute.⁴

¹Millar, op. cit.
²Gesenius, op. cit.
³Gesenius, op. cit.
⁴Finæsinger, op. cit. p. 68.
It is impossible to determine what the salisim denoted. Judging from the one passage where it occurs, I hardly think that it could refer to a small harp; the sense demands some instrument capable of producing a good volume of sound. For the same reason a three-stringed lute would also be inappropriate. Of course, the word must have some connection with the numeral three. On this basis it might refer to the sistrum, which often has three bars. However, the number three is not characteristic of the sistrum, for it often has four bars.

Finesinger also calls attention to Isaiah 40:13 where י"ס is found. This term, which may be related to ב"ש, is rendered ס"כ by the LXX, and tribus digitis by the Vulgate, suggesting that quantity which can be taken up in three fingers, i.e. a pinch. This may possibly show that ב"ש refers to some instrument held in the three fingers. Castanets are attached to the thumb and the third finger, or to the thumb and the first two fingers. However, this identification should be considered only a possibility.

The triangle would be the most likely identification, but there is no evidence that such an instrument was ever used by Semitic peoples. Even the modern Arabs do not know the instrument. Further, there is no representation of the triangle as an instrument of percussion on the ancient monuments now available. An interesting proposition is put forth

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1Loc. cit.
2Ibid., p. 69.
by Sachs.\footnote{Sachs, op. cit., p. 123.} He holds that $\textit{b}^\prime \textit{w}^\prime \textit{v}$ does not refer to instruments at all. He bases his argument upon word order, failing however, to take accent marks into consideration, and upon the fact that no such use of the term $\textit{b}^\prime \textit{w}^\prime \textit{v}$ is found in other Hebrew writing. Although Sachs' explanation is not adequate, neither is any other so far furnished. The problem had best be considered unsolved. Perhaps the explanation identifying $\textit{b}^\prime \textit{w}^\prime \textit{v}$ with castanets is the most satisfactory of those offered.

XIV. Terms in Psalm-titles

There are a few other terms found in the titles of various Psalms which should be mentioned in this thesis. That some of them have musical connotation it is not doubted. But just what the terms themselves mean is not certain. There has been the idea that these headings show which instrument accompanied the various Psalms. But there is no proof that the Psalms were to be accompanied at all. If they were to be accompanied, why not by one of the well-known instruments of the Temple worship, -- perhaps the $\textit{r}^\prime \textit{v} \textit{c}$ or the $\textit{b}^\prime \textit{v} \textit{v} \textit{t}$ or the $\textit{t}^\prime \textit{v} \textit{b} \textit{m}$? Although some of these instruments are referred to in the text of various Psalms, not one is mentioned in a heading. It is strange that the so-called "classification by
the names of the instruments employed actually omits all definitely known names of musical instruments. The terms נַחֲנָה, נִחְנָה, and נִנְנָם, which appear in Psalm-titles, have already been discussed in this thesis. Others, such as בְּכֵאָה or אוֹרוֹר do not need discussion as there is no problem concerning them.

There are some phrases which have been puzzling for many. Recently, however, it has been suggested by scholars that these phrases might be merely the first words or lines of some song which was popular among the ancient Hebrews. These tunes were found to be suitable for use in singing some of the Psalms and the inclusion of these phrases in the titles was merely to let the singers know what tune was to be used. These phrases are: נַחֲנָה פִּי-֐י, probably best rendered the hind of the dawn; פֶּרֶה פִּי-֐י, probably destroy not; מְרַדְּכָּא פִּי-֐י, the dove of the distant terebinth, כָּנְכָּא פִּי-֐י die for the son, or death makes white; מְרַדְּכָּא לְלֵיל, lilies; and פָּרָה לְלֵיל, sickness. "י" signifies many things as a pre-

1Sachs, op. cit., p. 115. 5Ps. 9.
2Ps. 22. 6Ps. 45, 69.
3Pss. 57, 58, 59, 75. 7Pss. 53, 88.
4Ps. 56.
position. Its significance in these Psalm-titles is probably that of on or to, much as today the words "set to the 'Londonderry Air' mean "to the melody of the 'Londonderry Air.'"

It is the general conclusion of May, among others, that such phrases as these refer to a melody or a tune title.¹

Two other terms in Psalm-titles should be noted.² They are פָּנְיוֹזֵבָּד, generally translated maidens, and פָּנְיוֹזֵבָּד, usually rendered the eighth. The former probably has the meaning, if it too is not merely a title or melody indication, of like maidens, i.e. with a high voice. As for פָּנְיוֹזֵבָּד, the LXX renders it on the octave, as does also the Vulgate. These two terms are found in successive verses in 1 Chronicles 15:20 and 21. There the statement is that the פָּנְיוֹזֵבָּד are פָּנְיוֹזֵבָּד, and the פָּנְיוֹזֵבָּד are פָּנְיוֹזֵבָּד. This does appear to suggest the higher and lower registers. However, such has not yet been definitely substantiated. As a matter of fact, May insists that such is not the case, as there is absolutely no evidence that the Hebrews were familiar with the octaves.³ It appears to this writer that the octave suggestion is a good one. It is unlikely that all the instru-

¹May, op. cit., p. 81
²Pss. 6, 12, and 46.
³May, loc. cit.
ments known to the Hebrews would be pitched in the same octave, and that they should never have noticed the difference in the register of a man's voice from that of a woman's. Certainly, the smaller harps would be pitched higher than the larger ones, and the sound of the flute or oboe would be of higher register than that of some of the larger harps. In other words, despite the lack of evidence, it may be assumed that the octave was known, though perhaps not technically, by the Hebrews.
CHAPTER VIII
CONCLUSIONS

I. SUMMARIZATION OF CONTENTS
OF THESIS

This study has been made with the idea of gaining an understanding of the musical instruments used by the Hebrews. The first three chapters contain introductory material. The first chapter sets forth three main matters. It mentions briefly the problems which are involved in this particular study. In the light of these problems, a statement is made as to the basis upon which the investigation was carried on. Finally, there is a section sketching the organization of the remainder of the thesis. Chapter two presents, in very brief compass, a general survey of the music of the Hebrews. Some consideration is given to the probable origin of Hebrew music. Certain questions which have to do with the technical musical knowledge possessed by the Hebrews are noted, and an attempt is made to answer them. Not only are these technical points given consideration, but also the non-technical characteristics of Hebrew music are discussed. There is also in chapter two a section devoted to the study
of the importance of music in the life of the Hebrews, as it may be seen in the manner and way in which they employed music. In this section it is seen that music played a large part in the life of these people, both religiously and secularly.

Because of the importance of the contacts which the Hebrews had with their neighbors, and because it is known that Hebrew civilization was greatly influenced by the neighboring civilizations, chapter three deals with a discussion of the musical instruments of the two neighboring civilizations which probably influenced the Hebrews the most; i.e. the Egyptian and the Mesopotamian. The contribution which archeological research in the lands of Egypt and Mesopotamia has made to any study of ancient civilization of the Near East is great. It is especially so in the study of the art and music of the ancients. The climatic conditions of these lands, as well as certain characteristics of their ancient inhabitants, have aided greatly in the reconstruction of many phases of their lives and experiences. However, this fact is not true of Palestine especially in view of the repeated foreign invasions and their consequences. Nevertheless, because of the numerous contacts which the Hebrews had with the peoples of these neighboring lands, attention is given briefly to the contemporary musical instruments known
to have been played in Egypt and Mesopotamia. Each type of instrument is noted, as knowledge has been gained of it, especially in the light of recent archeological research. The writer of this thesis is particularly indebted to the recent investigations of Curt Sachs, published only two years ago under the title, The History of Musical Instruments. Because of the generally recognized authority of this scholar, his treatment of the instruments of Egypt and Mesopotamia has been very closely followed in this third chapter. Indeed, it may be said, Sachs's chapter on "Hebrew Music" has also been referred to often in the major sections of this thesis.

The main body of the thesis falls rather naturally into four sections, or chapters. Three of these deal with the three kinds of musical instruments: percussion, string, and wind instruments. There are certain Hebrew musical terms about which identification can be rather certain, in the light of present knowledge. Each of these Hebrew terms is discussed under the main heading of the group to which it belongs. Each Hebrew term is considered as to its identification, its description, and its use among the Hebrews. In identifying a particular term and equating it with some definite instrument, the identification is generally made on the following basis. First, the way, or "us," in which
the term was understood by various early translators is noted. Second, the Hebrew, and sometimes Greek, etymology of the term itself is determined, wherever possible. And finally, the identification which has been made by various scholars on the basis of archeological investigation in Palestine and in neighboring lands, plus other contributing material, is weighed, and a conclusion is reached. For the most part identification as to type of instrument has been attempted in these first three major sections of the thesis. However, in some instances, the writer has felt that definite equation with a specific instrument could not be made. Such instances are noted both in the main discussion of the Hebrew and Greek terms and in another part of this concluding chapter.

In giving a description of the instruments which were signified by the Hebrew terms, it has been necessary to describe, usually, similar instruments from one or both of the neighboring lands of Palestine, i.e. Egypt and Mesopotamia. In some instances, however, there are some contextual materials in the MT which have aided in the description of the instrument discussed.

In main, this thesis surveys the use of the particular instrument as it is found in the Old Testament. Wherever possible, attention has been called to both secular and
sacred usage. However, as may well be expected, in some
cases there is no information to guide in an understanding
of the use of a particular instrument.

The fourth division of the major part of this thesis
deals with Hebrew terms which have been problems to scholars
investigating this field. All of these terms have at one
time or another been considered as musical terms of some
kind, and many of them have been equated with certain musical
instruments. It may be said, however, that all of them are
debatable terms, and terms about which much discussion has
centered. This thesis does not claim to have settled these
matters once and for all, but an attempt has been made to
discuss these debatable terms, giving consideration to the
various possibilities of identification. Wherever it seemed
possible to establish identification in the light of more
recent knowledge some statement to that effect has been made.
If identification is not advisable because of incomplete
knowledge or technical disagreement, or if only a general
assumption can be made, such facts are noted as the various
Hebrew terms are discussed.

II. SPECIFIC CONTRIBUTIONS OF
THESIS

In a number of instances this thesis has agreed with
traditional identification of the Hebrew terms investigated. However, there are other instances where this thesis suggests that departure from the traditional view is more correct. In such latter instances there are some terms about which it has seemed possible to make some positive identification, either specific or general. There are also some terms, consideration of which has led to the conclusion that while the traditional identification is probably incorrect, there has not as yet been discovered sufficient material to enable one to make any definite identification.

1. Instances of Agreement with Traditional Identification

ןו and ל. These terms are to be identified as cymbals, in accord with the traditional rendering. This identification is based primarily upon the root meanings, kindred terms in other languages, and certain archeological discoveries in Egypt and Mesopotamia.

קנ. All evidence points definitely to a percussive instrument of the drum type. This thesis, however, does not agree with the somewhat prevalent idea that קנ represents an instrument similar to the modern tamborine. It is also held that, in most instances in the MT, the term refers probably to a portable drum.
This was some kind of a stringed instrument, but, it is difficult to say definitely just what the traditional specific identification has been. This thesis agrees with a general identification as to class of instrument, and adds the opinion that some type of harp is very probably signified.

That these terms should still be identified as the curved horn, either natural or metal, is borne out by investigation of etymology, context, archeology, and the opinions of competent scholarship. If that be insufficient, there is the added proof of continued use of the \( \text{דנש} \) down into modern Judaism as a part of the synagogue worship.

The traditional rendering, instruments of music, should be considered correct. The suggestion however, that instruments of song, instead of instruments of music, is a better rendering, may be of some value. Perhaps this is an indication that usually, although not always, the musical instruments of the Hebrews were used for accompaniment of singing, rather than for solo or for orchestral ensemble.

This should probably be identified as a general term for stringed instruments, which is the traditional
identification. It is possible that the term may refer to some melody or to the thing struck, in the Psalm-titles in which it is found. This, however, has been only a suggestion.

The traditional rendering as a small ball or jingle is to be understood as the correct one.

is merely a loan word from the Greek, signifying the . There has not been a problem in this particular identification in the history of Biblical investigation.

, or . These terms have usually been considered to signify strings or stringed instruments in general. This is probably correct.

and . In spite of recent disagreement of some scholars this thesis holds that these terms refer to some difference in pitch, especially where the two terms are used together.

2. Instances of Departure from Traditional Identification

. It is held that these instruments should probably be thought of as sistra rather than as castanets. This suggestion appears justified in the light of etymology, the Vulgate translation, and recent archeological discoveries. Recent archeological discoveries may be said to have removed
a stumbling block which was previously in the way of identification with the sistrum.

The departure from tradition is not radical in this instance. Instead of a harp, this thesis chooses to consider the נל with a lyre-like instrument. The identification with the harp, while not necessarily universal, is nevertheless, probably the traditional one. Perhaps the spiritual, "Little David, Play on Your Harp," has had something to do with this general identification.

The term psalter is rather confusing for it is a transliteration of the LXX and Vulgate, instead of a translation of the Hebrew word. This thesis suggests the identification of נל as a general name for harps, probably those harps similar to the Assyrian harp. Identification is based primarily upon the rather peculiar appearance of the Assyrian harp. Its sounding board, covered with a skin, on the top instead of beneath the strings, sets it off as being different from more conventional harps. It is probable that the נל was of this Assyrian type. This identification also fits the root meaning of the Hebrew word.

This term should not be translated sackbut, which is an instrument similar to the modern trombone. The נל may have been an angular harp. It may have been a four-
strung small triangular harp. However, it is possible that the angular harp, similar to a type of siege-instrument of ancient warfare, and the small triangular harp should be equated with each other.

There are phrases and terms in Psalm-titles which should probably be understood as referring to some familiar melody to which the words were to be sung, rather than to be considered as referring to some instrument of music. These are: 

3. Instances where it is felt that Departure from the Traditional Interpretation is Justified, but where no Adequate Solution has yet been Found.

This is probably neither the harp, nor the psaltery, nor the lyre, as traditionally identified. The possible consequent identification is with the zither (like the Phoenician zither). This, however, is not certain, although such identification may be permissible in the light of some archeological discoveries and of a letter attributed to
St. Jerome.

\( \varepsilon \varepsilon \eta \), the traditional rendering of this term is pipe, with the usual specification of flute. Many varieties of pipes have been discovered in the Near East, but there is no definite information as to which kind the \( \varepsilon \varepsilon \eta \) may have been. Recently the double oboe has been suggested, with some supporting evidence given. Possibly this is correct, but at the present time the identification is not positive.

\( \pi \eta \varepsilon \eta \). The traditional interpretation has been that this was some sort of wind instrument. It has been more recently suggested that it was a general term for wood-winds from the root \( \varepsilon \varepsilon \eta \). Another suggestion has been made, based upon the idea that the term was derived from \( \varepsilon \varepsilon \eta \). If this is correct, the term may designate some ancient popular melody having to do with inheritance. There is doubt as to which of these explanations is better, or if either is correct.

\( \varepsilon \rho \lambda \). It is not likely that this term signifies any musical instrument, as it would be out of place in a list of jewelry. On the other hand, it is impossible to be certain that it is a technical term having to do with jewelry, although this is a possibility.

\( \varepsilon \varepsilon \theta \varepsilon \beta \iota \). There is as yet no explanation which the writer of this thesis considers satisfactory.
There is a real question as to whether this term means instruments of music, or dancing girls. There is the possibility that it means neither. The matter is unsolved.

There are numerous possibilities for identification. The triangle, the small harp, the castanets may be suggested, but no real conclusion can be reached as to a positive identification at this time.

III. VALUE OF THIS THESIS

It is hoped that this thesis, in addition to bringing together and carefully examining materials sufficient to shed some light upon the matter of the identification of the musical instruments which are mentioned in the MT, may also contribute something to the general field of Semitic knowledge. While such has not been the main purpose of this investigation, the thesis may possibly add something to an appreciation of the aesthetic life of the Hebrews. Further, the writer has desired that through this investigation some contribution might also be made to the field of the history of musical instruments. If the abilities of the writer have not been such that any contribution of importance have been made directly from his consideration of the matters discussed in this thesis, perhaps just the gathering of this material
together, and the listing of the various passages from the Holy Scriptures which use the Hebrew musical terms, will not be without some little value to one seeking to investigate this field.
BIBLIOGRAPHY

A. BOOKS


B. REFERENCE WORKS


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C. PERIODICAL ARTICLES


D. TEXTS


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# APPENDIX A

## PERCUSSION INSTRUMENTS

<table>
<thead>
<tr>
<th>I. <strong>תָּרְדִים</strong></th>
<th>IV. <strong>נְגִים</strong></th>
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<tbody>
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APPENDIX B
STRINGED INSTRUMENTS

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105
# APPENDIX C

## WIND INSTRUMENTS

### I. חֶמוֹר

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APPENDIX C

107
# APPENDIX D

## OTHER TERMS

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(This certification-sheet is to be bound with the thesis. The major professor should have it filled out at the oral examination.)

Name of candidate: Kenneth Stewart

Oral Examination:

Date May 25, 1942

Committee:

Lorenzo W. Harker, Chairman

Harold F. Harlin

Thesis title:

An Investigation of the Musical Instruments mentioned in the Maimonides Text

Thesis approved in final form:

Date June 1, 1942

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