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Introduction
The purpose of the Marimba Basics manual is to guide a beginner-level percussionist through the basic information of mallets and the marimba. This includes the structure of both mallets and the marimba, mallet selection, and mallet grip instructions. The manual provides helpful tips and instructions that are essential for every new percussionist. Although this manual is designed for beginner-level percussionists, the reader must have basic music knowledge. This includes understanding how to read notes and musical terms, such as octaves, accidentals, and sound range. The topics covered in this manual are based on my personal experience (what I would have wanted to know when I was a new percussionist). This means that the manual is specifically designed to help you familiarize with your instrument, before you actually start to play it. The following section provides an overview of the topics in this manual.

Overview
The manual begins by introducing both mallets and the marimba. The Introductory chapter focuses on the different types and structures of both (mallets and the marimba). Once the basic structural information has been introduced, the reader is given tips on mallet selection. The next two chapters focus on detailed grip instructions for the two-mallet grip, and the two four-mallet grips. This manual also provides troubleshooting section for any problems that could occur. Continue reading to begin learning about Marimba Basics!
Chapter 1: Introducing Mallets and the Marimba
Mallets

Mallets are your main tools for playing the marimba. Mallets can be played with a single mallet in each hand, or even two in each hand. They are made of many different types of material. In addition, they can vary in length, size of head, shape of the head, yarn, core, and body. There is such a large variety of mallets, because they depend on not only the kind of marimba, but also the sound range of the instrument. The following sections discuss mallet structure and how to choose the right mallets for your instrument.

What are Mallets made of?
Simple marimba mallets consist of a shaft that is mainly made from either birch or rattan material. On top of the shaft is the mallet head. The head is made up of a core, which is wrapped in yarn. This prevents damage to the instrument and brings out a better sound.

Shaft
Mallet shafts are usually made from wood or synthetic material. Mallets with birch shafts are used with the Stevens Grip (Chapter 3) because they are thin and inflexible. This is necessary for a grip that involves pressure on the fingers. Mallets with rattan shafts are thicker and flexible, and are used for the Burton Grip. This involves more pressure in the middle of the hand.

Core
The core of a mallet is what brings out the sound from the marimba. Cores are made from a variety of materials such as copper, brass, wood, and plastic. The cores are usually covered in a layer of rubber. This is done to bring out a better tone, in addition to preventing damage to the instrument.

Yarn Covering
The yarn covering on the mallet serves as protection for the instrument in addition to providing a good quality of sound. Mallets can be wrapped in thick or thin yarn, depending on what kind of sound quality you want to achieve.

On the next page, you will be able to view a diagram of a birch mallet and a rattan mallet (Figure 1B and Figure 1C).
Mallet Structure
The figure below shows the structure of a birch mallet and a rattan mallet. Both mallets have the same structure, however the materials are different.

**Head:**
- Core *(Rubber Covering)*
- Yarn Covering

**Shaft:**
- Birch *(left)*
- Rattan *(right)*
Chapter 1: Introducing Mallets and the Marimba

The Marimba

The marimba is the instrument you will use. Marimbas come in many different sizes, shapes, and types, such as outdoor, indoor, and practice marimbas. They can also vary in their range of sound. All marimbas have the same basic structure, including the base and the top part of the instrument (where the bars are located). Some variations can occur depending on the kind of marimba. The following sections focus on the types of marimbas and their structure.

Types of Marimbas

Marimbas come in a variety, ranging from practice to outdoor, and even to indoor kinds. Practice marimbas have a different structure than outdoor and indoor ones, because they have foldable stands.

**Practice Marimbas**

Practice marimbas are usually much smaller than indoor and outdoor marimbas, because they are designed for younger students who need to practice at home. Practice marimbas can have an octave range from two to three octaves. The bars are usually made from synthetic material. These marimbas are easy to move around, and have a foldable stand.

![Figure 1D: Practice Marimba](image)

**Outdoor Marimbas**

Outdoor Marimbas are mainly used for practicing outdoors, marching or drumline competitions, and football games. These marimbas have a sturdier metal build and stronger wheels, compared to the indoor performance marimbas. Most outdoor marimbas have bars made of synthetic material and range from three to four octaves. In addition, outdoor marimbas have a bar at the front that can be used to clamp on other percussion instruments as shown in figure 1E.

![Figure 1E: Outdoor Marimba](image)

**Indoor Marimbas**

Indoor Marimbas are fancier than the other kinds of marimbas. These marimbas are usually larger, ranging from four to five octaves. These marimbas are used for professional performances, recitals, classical pieces, solos, and small ensembles. The base of an indoor marimba is usually wooden, making it less sturdy than the outdoor marimbas. The bars of these marimbas are made of real wood.

![Figure 1F: Indoor Marimba](image)
Marimba Structure
The Figures below show the basic structures of a marimba. Figures 1G and 1H focus on the base of the marimba, while figures 1I and 1J focus on the top area, where the bars are located. Both figures show the structure of a basic outdoor marimba.

Base

Figure 1G: Base of an outdoor marimba.

Figure 1H: Top view of base.
Top View

Figure 1I: Angled view of the top of a marimba.

Figure 1J: Bird’s eye view of the top of a marimba.
Choosing the Right Mallets

Now that you understand the basic structure of mallets and the marimba, you are ready to make a selection on the kind of mallets you’ll want to use. Choosing the right mallets depends on the kind of grip you want to use, the type of marimba, and the piece of music. All of these criteria flow into one another (rather than being independent of one another). Read the following sections to find out what kind of mallets you need.

Types of Mallets

The kind of mallets you need will be determined by the sound quality you are trying to achieve. For softer sound, you will want larger, lighter, and rounder mallets. In contrast, for clearer and louder sound you will want harder, heavier, and smaller mallets. If you are looking for mallets that produce great tones in the entire marimba range, then two-toned mallets are a good choice. These mallets fit to the size of the bar, and the pressure of the stroke. The grip will determine the kind of shaft, while the sound range of the marimba and the mood of the piece will determine the kind of head.

Grip

The grip you choose will determine the kind of shaft you want. When playing with a two-mallet grip, marimba players prefer to use birch shaft mallets, because they are less slippery than rattan mallets. In terms of four mallets, if you are using Stevens grip, you need to get mallets that have birch shafts for easy access to accidentals. However, if you are using Burton grip, you need to get mallets with rattan shafts for flexibility.

Marimba

The kind of mallets you choose depends on the instrument. Some marimbas bars are made of real wood, while others are made of synthetic material. Both kinds of bars can produce quite different sounds. One mallet may sound glassy and piercing on the synthetic bars, yet sound just the right tone on the rosewood bars. It is a good idea to try out mallets on the marimba you will use, to ensure a correct choice.
Chapter 1: Introducing Mallets and the Marimba

Sound Range
The range of where you are playing is an important factor. If you are playing on the lower part of the marimba, you will want to choose heavier, larger mallets. If you are playing on the high register of the marimba, then you will want to use harder mallets, even rubber. For four mallets, you can either play with a combination of softer mallets in the left hand, and harder mallets in the right hand. Another suggestion is to play with two-toned mallets.

Music
The music you choose plays a big part in the kinds of mallets you need. After picking a piece, you will be able to determine the mood of the piece; whether it is loud and dynamic, or soft and mysterious. You will need to find the mallets to fit with the mood of your piece. For quiet and peaceful music, you will want larger, lighter, and rounder mallets. For loud and clear music, you will want harder, heavier, and smaller mallets. In addition, the music will also determine the kind of grip that will be used. For some pieces, it is necessary to use Burton Grip, while in others it is necessary to use Stevens. In some cases, the musician can choose either grip. Both grip and music will be determined by the type of music.

Now that you understand the basic structure of mallets and the marimba, including which ones to choose, you are ready to learn about the basic mallet grips. These include a two-mallet grip and two four-mallet grips.
Chapter 2: Two-Mallet Grip
Two-Mallet Grip
You have finished learning the basic information about mallets and the marimba. You can now move on to learning the major mallet grips. The Two-Mallet Grip involves one mallet in each hand. This grip is good for playing fast runs across the marimba, and simpler music. The next section focuses on step by step instructions on how to hold your mallets.

How to Hold Your Mallets (Step-by-Step)
The instructions below separate the steps into two sections. The first section is for each single mallet. The final section is for putting both hands together. I recommend that you try each hand first, before putting the two together. The figures are numbered to show the matching steps.

Single Mallet
1. Relax your right hand.

2. Let your fingers curl naturally.

3. Let your third and fourth fingers (ring and pinky) curl naturally, and move your index and middle fingers out of the way.

4. Place a mallet in between the curl of the fingers (you should feel the weight of the mallet on your fingers).

5. Keep your fingers relaxed, but firm.

6. Try moving your wrist up and down.

7. Make sure the mallet stays in place (do not squeeze your fingers too hard).

8. Allow the rest of your fingers to curl back.

Figure 2A: Steps 1-3
Figure 2B: Steps 4-7
Figure 2C: Step 8
9. Angle your hand, so that when it is in line with your arm, it is completely flat on top.

10. Keep the mallet between where your thumb meets your index finger. (The index and middle fingers are there to help control the mallet, while the bottom fingers are the power behind the stroke.)

11. Try moving your wrist up and down.

12. Make sure the mallet stays in place (do not squeeze your fingers too hard).

13. Remove the mallet from your hand to try the other hand.

**Combined Mallets**

To combine mallets, follow the steps for each single mallet for both hands. The figures below show stroke movements at different angles.
Chapter 3: Four-Mallet Grip
Four-Mallet Grip

Once you understand the two-mallet grip, you can move onto the four-mallet grips. These grips include two mallets per hand, instead of one. There are two main types of four-mallet grips: Stevens and Burton. Both techniques favor certain parts of the hands over the other and are based on side-to-side rotations of the wrist. The following sections will show step by step instructions on each grip.
Stevens Grip

Stevens Grip is the preferred four-mallet grip for marimba players. This grip makes it much easier for players to reach accidentals. It is powerful, but requires a buildup of muscles, through practice, to reach that power. The instructions below separate the steps into three sections. The first two sections are for each single mallet. The final section is for putting both of the previous sections together. I recommend that you try each section before putting the two together. The figures are numbered to show the matching steps.

Mallet 1

1. Relax your right hand.

2. Let your third and fourth fingers (ring and pinky) curl naturally.

3. Place a mallet between the curl of the fingers (you should feel the weight of the mallet on your fingers).

4. Let about a centimeter of the end of the mallet stick out from underneath your fourth finger.

5. Keep your fingers relaxed, but firm.

6. Try rotating your wrist from side to side.

7. Make sure the mallet stays in place (do not squeeze your fingers too hard).

8. Remove the mallet from your hand to try the next mallet.
Mallet 2

1. Relax your right hand.

2. Curl your index finger until it is underneath the front of your thumb.

3. Place a mallet directly between where your thumb and index finger meet.

4. Make sure the bottom end of the mallet is resting in the middle of your hand.

5. Keep your fingers relaxed, but firm.

6. Try rotating your wrist from side to side.

7. Make sure the mallet stays in place (do not squeeze your fingers too hard).

8. Remove the mallet from your hand to try both mallets together.

Figure 3C: Steps 1-2

Figure 3D: Steps 3-5
Combined Mallets (1 and 2)

1. Start by following the steps for Mallet 1.

2. Keep your fingers relaxed, but firm.

3. Add the other mallet by following the steps for Mallet 2 (do this step once you have control of the first mallet).

4. Make sure your fingers are relaxed.

5. Rotate your wrist from side to side to check if the grip is comfortable and controllable.

Once you are comfortable with the right hand, try the grip with your left hand. You are ready to use the Stevens grip on the marimba!

Different Viewpoints

The following figures show different angles of view for the grip.

Figure 3F: Steps 1-2

Figure 3G: Step 3

Figure 3H: Bird’s eye view

Figure 3I: Lifted-up view

Figure 3J: Mid-stroke view

Figure 3K: Top of stroke view
Burton Grip
Burton Grip is also a grip that many marimba players use. Although it is not the most used grip on marimba, it makes getting around the board easier in some pieces of music. This grip allows for a much more powerful sound, and doesn’t require as much buildup to get that power. The instructions below separate the steps into three sections. The first two sections are for each single mallet. The final section is for putting both of the previous sections together. I recommend that you try each section before putting the two together. The figures are numbered to show the matching steps.

Mallet 1

1. Relax your right hand, palm facing upwards.

2. Place the mallet between your index and middle finger (along the line of the index finger).

3. Curl the rest of your fingers around the mallet.

4. Make sure to leave about three inches from the edge of your hand to the end of the shaft.

5. Keep your fingers relaxed, but firm.

6. Try rotating your wrist from side to side.

7. Make sure the mallet stays in place (do not squeeze your fingers too hard).

8. Remove the mallet from your hand to try the next mallet.
Mallet 2

1. Relax your right hand.

2. Place your hand above Mallet 2.

3. Pick up mallet 2, like you would pick up a single mallet.

4. Curl your fingers around the mallet.

5. Keep your fingers relaxed, but firm.

6. Try rotating your wrist from side to side.

7. Make sure the mallet stays in place (do not squeeze your fingers too hard).

8. Remove the mallet from your hand to try both mallets together.
Combined Mallets (1 and 2)

1. Start by following the steps for Mallet 1.
2. Keep your fingers relaxed, but firm.
3. Add the other mallet by following the steps for Mallet 2 (do this step once you have control of the first mallet).
4. Make sure your fingers are relaxed.
5. Rotate your wrist from side to side to check if the grip is comfortable and controllable.

Once you are comfortable with the left hand, try the grip with your right hand. You are ready to use the Burton grip on the marimba!

Different Viewpoints

The following figures show different angles of view for the grip.

Figure 3R: Mallet Arrangement

Figure 3S: Lifted-up view

Figure 3T: Downward stroke view

Figure 3U: Upward stroke view
Troubleshoot
Troubleshoot

There are a few problems that could occur during your use of mallets and the marimba. However, there are also solutions to solve those problems. These problems can range from mallets and the marimba, to grip issues. The following sections focus on problems and solutions for each kind of issue. The problems are listed first, and then the solutions are listed below. Each solution corresponds with the lettered problem above.

Mallet Issues

Problems

There are a three major things that could go wrong while using mallets.

A: Your mallets (shaft) could break, which makes them unusable.

B: The yarn covering could start to unravel, which leads to a frayed mallet head.

C: The core could break, which creates a clicking sound every stroke.

Solutions

A: If your mallet shaft breaks, then you need to throw it away immediately, because the jagged edges could be harmful. In addition, the mallets are unusable. You will now need to get new replacement mallets. If you have a warranty, then depending on the company you purchased the mallets from, you can get a new set of mallets.

B: If the yarn on your mallet head starts to fray and unravel, stop using the mallet. In this situation, you should send the mallet back to the company you purchased it from. Most Percussion companies will re-ravel the yarn for free, but some may charge you. Another option is that you can unravel and then re-ravel the yarn yourself. I recommend that you send the mallet back to the company to ensure a high quality re-ravel.

C: If you hear a clicking sound with every stroke, then your core is broken. There is no way to fix the core. I recommend that you dispose of these, and purchase a new set of mallets.

Figure 4A: Broken Mallet

Figure 4B: Unraveled Mallet
Marimba Issues
Problems
Most of the marimba problems involve and structural issues, except for the bars.

A: Parts of the marimba could break, such as the nodes, the resonators, or the string, making the instrument unusable.

B: The bar(s) of a marimba breaks, and now you’re missing a note.

Solutions
A: If your resonators break, then you need to contact professional help, or consult your director. Broken nodes are easily replaced by spare nodes, by simply hammering them in place of the old one. If your string breaks, then you can easily fix this problem. Ask a teacher to help teach and help you replace the broken string.

B: If the bar of a marimba breaks, you need to save the bar, send it back to the company, and buy a replacement. There is no way to fix a broken bar.

Grip Issues
Grip issues mainly occur when you first learn the grips. This is because your hand is not used to holding heavy mallets.

Problems
A: The grip is uncomfortable or painful.

B: You are unable to keep control of the mallets.

Solutions
A: The marimba grips can be painful at first, but it is because your hands are not strong enough to hold heavy mallets right from the start. Remember to keep your hands relaxed, but firm. Over pressurizing your hands will become quite painful and make you lose circulation. I recommend that you keep practicing, because your hands will familiarize with the grip and strengthen in the process as well.

B: If you are unable to keep control of your mallets, go back through the steps to make sure your fingers and the mallets are in the correct place. In addition, practice the grips daily, and as you begin to familiarize with the grip technique, you will gain better control.
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