

## Holding the Mallets

### Outside mallets 1 and 4

Start with the arm hanging at the side — wrist and fingers relaxed. Raise the forearm from the elbow until it is parallel with the floor. Turn the wrist so that the surface of the thumb nail is parallel to the ceiling.

Slip the shaft of a mallet between fingers 2 and 3. Rest it on the second joint of the third finger. Now curl fingers 3 and 4 around the shaft until the tips of the fingers just touch the section of palm near the base of the fingers. Adjust the length of the mallet so that only  $\frac{1}{8}$ th of an inch protrudes beyond the third section of the fourth finger. The shaft of the mallet should touch the second finger in its first section, closer to the second joint than the first.

Check the following points before proceeding:

1. Fingers should be relaxed — mallet **hangs** in position.
2. Weight of mallet heads should pull up slightly on ends of fingers 3 and 4 — more so on 4.
3. Shaft should lie on top of second joint of third finger and beneath first section of second finger, close to, but not beneath second joint.
4. Edge of hand should face floor.
5. Compare with figure 3.



3

### Inside mallets 2 and 3

Place the end of the mallet handle lightly into the palm flesh 1 to  $1\frac{1}{2}$  inches beneath the base of the thumb. Set the shaft down on the side of the third joint of the first finger. The weight of the mallet will be distributed like a hanging lever: the end of the handle will pull up on the flesh beneath the thumb, and the shaft will push down on the first finger. The mallet should be **balanced** in position.

Check the following points before proceeding:

1. Fingers and wrist should be relaxed.
2. Position of fingers holding the outside mallet should not have changed (if so, vom anfang!).
3. Inside mallet should **hang** between flesh in base of thumb and third joint of first finger.
4. Compare position with figure 4.

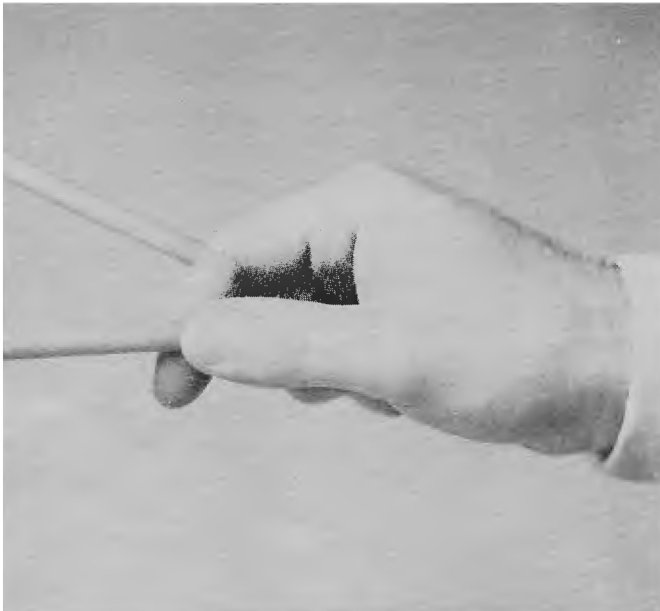
Drop thumb onto handle. Curl joints of second finger so that third section of second finger touches end of shaft. Check over-all position with figures 5, 6, & 7.



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Check the following points:

1. Hand and fingers should look graceful, curved, and natural.
2. Mallets should **hang** in hand with both hand and fingers relaxed: expend no more energy than is necessary to keep mallets from falling out of hand.
3. Inside mallet should be  $\frac{1}{2}$  to 1 inch longer than the outside. (Of course, this assumes that the student was clever enough to start this section with a matched set of mallets.)
4. Mallet heads should be at the same playing height (distance from floor).
5. If mallet heads are not at the same height, do one of the following:
  - (a) Move end of inside mallet **up**, closer to base (first joint) of thumb.
  - (b) Curl finger 2 farther into the palm in order to make room for the first finger to be pulled down by the weight of the mallet.
  - (c) Pull **down** slightly with fingers 3 and 4 to pull outside mallet head **up**.
6. There should be a natural, open curve between thumb and first finger.

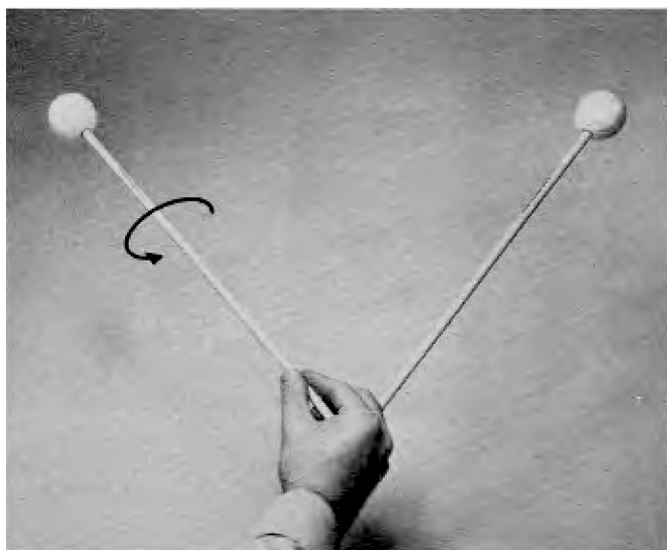
It is highly recommended that in the initial stages of study, the student refer to this hand position description whenever there is the **slightest** bit of tension or awkwardness in holding the mallets. Remember, holding the mallets **correctly** is almost effortless.

## Interval Changes

Problems related to interval changes can plague the first few years of marimba study. To prevent these physical hindrances, it is essential that from the inception of holding the mallets, the student learn to move them correctly. Since the subject is so complicated—and therefore potentially confusing without on-the-spot demonstration and correction—the following is offered only as a guideline of the most critical aspects of efficient interval control.

### General considerations

1. Keep the hand and fingers **relaxed** up to intervals of a tenth. Security of movement is a product of coordination, not strength.
2. Tension will negate the superior interval changing capacity of this grip. If the student wants to play with tension, it is recommended that he switch to traditional grip.
3. Hand and fingers should **look** graceful and curved up to intervals of a tenth. A contorted or angular looking hand position is a sure sign of tension. Remember that tension is both a **symptom** of something wrong and a **cause** for further things to go wrong. Get rid of it **NOW** before the muscles can familiarize themselves with the feeling.
4. The muscles controlling the outside mallet are slower to develop than those controlling the inside. One should not be concerned if several months go by with comparatively little of the outside mallet interval changing capacity being used.

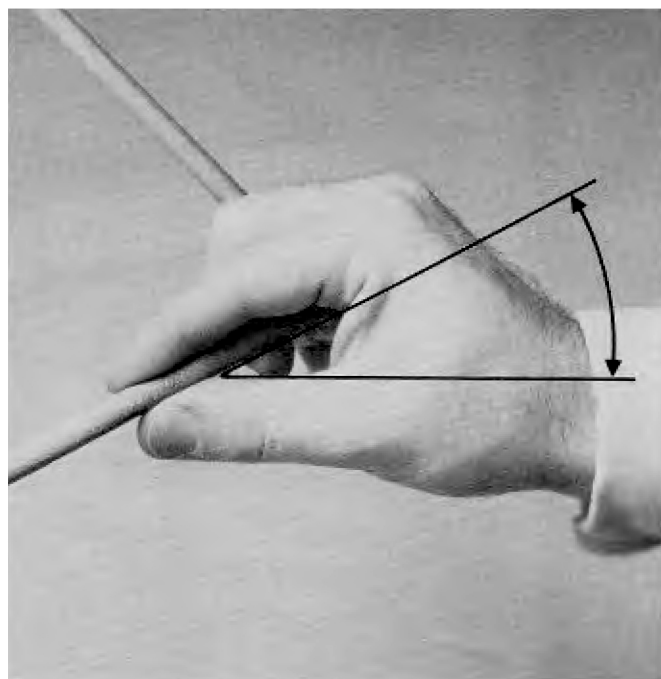


8

### Specific considerations

While bearing in mind the above general considerations, the student should memorize the content of the following particulars (**memorize**, not familiarize).

1. The inside mallet will spin slightly between the thumb and the first finger as the interval changes. When the interval is **opening**, the mallet in the right hand will spin counterclockwise; the mallet in the left hand will spin clockwise. The direction of spin will be opposite when the interval is **closing**. See figure 8.
2. The **first finger straightens** as it flips the inside mallet up and out. As the first finger straightens, it moves from its position under the mallet to a position on the side of the mallet. See figure 9.
3. When the mallets are spread to about the position of a third, the hand configuration will be **identical** to the basic “rest” position described in the section on holding the mallets. The inside mallet is **centered** under the thumb and is in a straight line with the length of the thumb. As the interval opens and the mallet spins between the first finger and thumb, the spinning motion will roll the mallet from its central position under the thumb to a position on the side of the thumb. There is now an acute angle formed by the thumb and shaft. See figure 9.



9

4. If the large interval position (partially described in item 3) is to be maintained for an extended period — perhaps a passage in one-handed octaves — then the position of the thumb may be “corrected” by centralizing the pad of the thumb over the shaft. However, the shaft will not form a straight line with the length of the thumb as it did in the position of a third. The thumb merely changes its point of contact with the shaft from the side of the thumb to the pad. This realignment of the thumb is usually unnecessary and should be undertaken only when there are extended large interval passages or when extra support is needed for Neanderthal strokes. See figure 10.

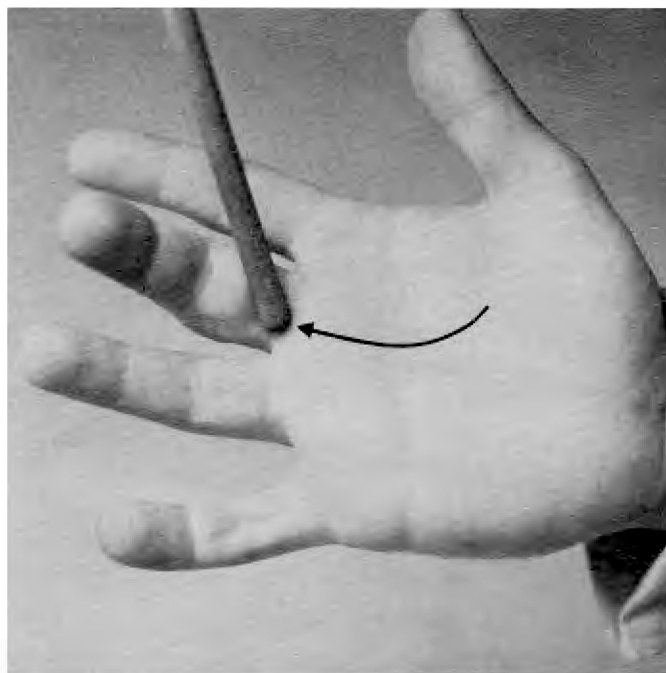
5. The first finger and thumb remain in juxtaposition. The first finger should not curl under the mallet during large intervals. The thumb and first finger work **together**. If the thumb is very long in relationship to the first finger, the student may have to bend the second joint of the thumb to keep it opposite the first finger on large intervals.



10

6. As the interval opens and closes, the end of the inside mallet will inscribe an arc in the palm of the hand. See figure 11. This path that the end of the mallet travels is a slightly curved line extending from its resting place beneath the base of the thumb (thirds), to the first joint of the second finger (very large intervals).

7. If there is any tendency for the thumb and first finger to change their point of contact on the length of the shaft, the mallet is being held at an incorrect length. If the end of the shaft catches or drags on the flesh of the palm when interval changes are being made, the mallet is being held **too short**. In this case the student should return to a hanging rest position (section VI) and move the end of the inside mallet **up**, closer to the base of the thumb to lengthen the grip on the shaft. If the student feels that the end of the shaft is not obtaining support from contact with the palm, the mallet is being held **too long**. In this case the student should return to a hanging rest position and move the end of the mallet **down**, away from the base of the thumb to shorten the grip on the shaft.



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8. The second finger helps to open and close the interval and is the major means of supporting the end of the shaft in the palm. Points **a** through **d** refer to the operation of the second finger.

(a) The second finger **never** uncurls. Joints 2 and 3 remain bent. The second joint of the second finger strays very little from a 90 degree bend. The third joint of the second finger will vary from about 110 degrees (thirds) to 90 degrees (large intervals). The only joint of the second finger which ever straightens is the **first** joint.

(b) The second finger pushes and pulls the end of the shaft through the arc described in item 6. Most of the pushing and pulling power of the second finger comes from the first joint; that is, the connection point of the finger to hand. As the interval grows larger and the end of the shaft is pulled toward the base of the second finger, the **first** section of the second finger approaches a straight line with the back of the hand. See figure 12.

(c) Since the second finger is the major means of supporting the end of the mallet in the hand, it is kept in firm contact with the last inch of shaft. The second finger applies more pressure on large intervals and when extra support is needed. The pressure is released when the interval is changed.

(d) The second finger is snapped back into its position under the shaft to help close the interval.

9. Except for intervals **larger** than a tenth, the thumb is never placed between the shafts. See figure 13. The thumb should rest on top of the shaft for small intervals and roll off to the side for large intervals — except as noted in item 4.

10. The **outside** mallet is moved principally with fingers 3 and 4, although the first section of the second finger **follows** along and remains in light contact.

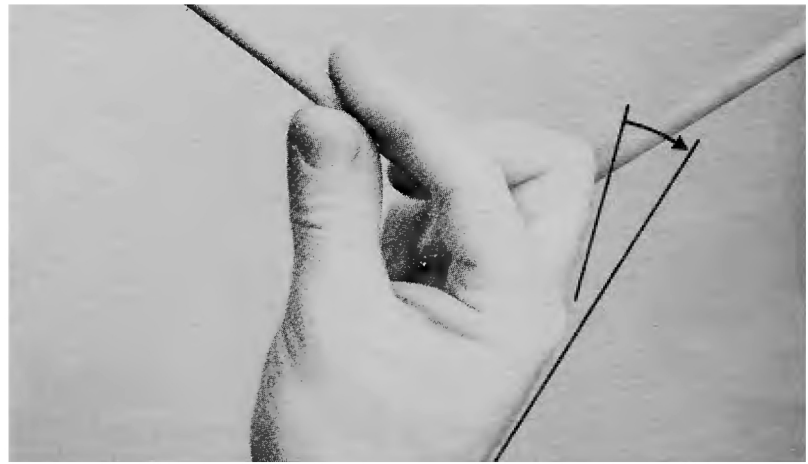
11. The motion used by fingers 3 and 4 in opening the interval is similar to that of the second finger. The second and third joints bend progressively as the interval opens. Simultaneously the angle formed by the first sections of fingers 3 and 4 and the back of the hand approaches a straight line. See figure 14.

12. The muscles which control the outside mallet may be strengthened with the following exercise:

(a) Attempt to scratch an imaginary itch in the first joint of fingers 3 and 4 with the tips of fingers 3 and 4. See figure 15.

(b) Repeat until it doesn't itch anymore.

13. Study the large interval position sequence shown in figures 16, 17, & 18.



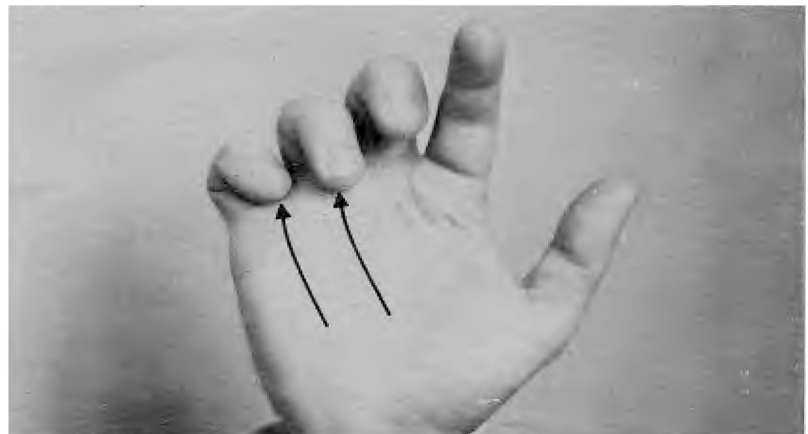
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## Stroke Height

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One of the simplest but rarely articulated truths of playing percussion instruments is that soft notes are easier to play with a short stroke than with a long stroke, and that loud notes are easier to play with a long stroke than with a short stroke. If this fact is not obvious, the student should try to play fortissimo first with a one-inch stroke and then with an eight-inch stroke; pianissimo first with an eight-inch stroke and then with a one-inch stroke. In fact, there is a “correct” starting height for every dynamic level. Facile players are able to produce greater volume from a given height than inept players. Hard, dense mallets can produce greater volume from a given height than soft, light mallets.

Although the general rule is easy to understand — louder = higher and softer = lower — it is difficult to refine. What if the starting height of a mezzo-forte stroke with a medium mallet feels “OK” anywhere from three inches to six inches? One should choose the **lowest** stroke height that preserves a natural, smooth acceleration of the mallet heads. If the starting point is too **low**, the stroke will feel pinched and tense. If the stroke starts too **high**, it will feel cushioned and restrained.

Why choose the **lowest** comfortable height? It is easier for a marimbist to hit a “bull’s eye” at three inches than at four inches. This one-inch difference does not make playing **much** easier, but it may keep a few of the thousands of bulls’ eyes necessary in a performance from sounding like some other portion of a bull’s anatomy.