

# West Kingdom Thrust and Throw weapon rules and specifications

Revision 1.0. January 29, 2008 - Artus Quintus, Earl Marshal

Javelin Construction method by Daid ap Morgant Dinefwr - Axe construction method by Owen Flechyr

## **In order to be authorized for TnT usage an already authorized Melee fighter must demonstrate the following:**

An understanding of the Hand Thrown Missile rules in the West Kingdom Armored Combat

Manual (abbreviated MHB) (<http://www.westkingdom.org/martial/>), including use and construction.

Proper field inspection of a TnT weapon.

Safe use of a TnT weapon.

All use of Thrust and Throw (TnT) weapons is governed by the Hand Thrown Missile section of the MHB, reprinted here.

Hand Thrown Missiles (Javelins, Darts and Throwing Axes)

1. Hand Thrown Missile combatants shall meet the minimum Society standards for a fully armored, heavy weapons combatant. The only exception to this rule shall be the "Archer's Gauntlet" (see Combat Archery section).

2. A Hand Thrown Missile combatant may be struck/killed in the same manner as any combatant on the field. A cry of "yield" shall be accepted. Once killed, they are treated as any other dead combatant, being removed from combat as soon as practical.

3. Hand Thrown Missile combatants may become a regular heavy combatant as long as he/she is authorized as a heavy combatant and does two things:

a. Discards, in such a way as to not cause a hazard, any PVC javelins held in the hands or arms and takes up an approved weapon and/or shield.

b. Either changes his/her "Archer's Gauntlet" for a combat-legal gauntlet or other hand projection that meets heavy combatant hand protection standards.

If a combatant is already armored with combat legal hand protection and is using a thrust and throw weapon (javelin, axe, knife etc) then no change is required.

4. PVC javelins shall not be used to block heavy weapon blows. Thrust and throw weapons may be used for blocking.

5. Hand thrown weapons may be field inspected and reused without being taken off the battlefield for inspection.

The "Archer's Gauntlet" shall be a minimum of a hockey glove with the fingers cut off, so that the back of the hand and the wrist are protected. Demigauntlets may be used in place of the "Archer's Gauntlet" described above, so long as they provide equivalent or greater protection and 6mm or ¼ inch of closed cell foam padding.

## FRAMEA (Thrust and Throw Weapon) Specifications

Throwing Weapons: These weapons may be used for striking and may also be thrown in melee scenarios where thrown weapons are allowed. May include thrust-and-throw javelins, axes, knives, etc.

- a. Shafts shall be constructed of rattan not less than 1¼ (31.8mm) inch in diameter along its entire length or of two layers of Siloflex or equivalent. The outer layer shall be 1 inch (25.4mm) inner diameter Siloflex (1¼ inch [31.8mm] OD) and the inner layer shall be 0.75 inch (19.1mm) inner diameter Siloflex.
- b. If Siloflex is used, both ends of the shaft shall be covered with either a schedule-40 PVC cap with an interior diameter the same as the outside diameter of the shaft (1¼ inch [31.8mm]), or with a rubber stopper or equivalent means to prevent the tubing from penetrating the thrusting tip(s), fastened securely in place by tape and/or glue.
- c. Thrusting tips shall be used on any tip that can be reasonably assumed to contact a fighter when the weapon is used or thrown. Tips shall be no less than 2 inches (50.8mm) in diameter/cross-section and have 2 inches (50.8mm) of resilient material in front of the rigid tip of the weapon, thereby providing progressively resistant give.
- d. If the weapon has a head, it shall not be constructed of solely rigid materials. The head shall be firmly and securely attached to the haft or handle. The head shall allow at least ½ inch (12.7mm) of progressive give between the striking surface and the weapon haft or handle.
- e. The weapon must have the owner's name, kingdom, and group clearly and legibly printed on it in English characters for identification.
- f. Total mass of the weapon shall not exceed 2 pounds.

## **Javelin Construction Method**

### **Parts:**

1- Five foot piece of rattan 1" 1/4

OR

1- Five-foot piece of 160psi Silo-flex 1" diameter or equivalent.

1- Five foot piece of 160psi Silo-flex ¾" diameter or equivalent.

2- 1" schedule 40 PVC end caps. '

1- 2" or greater thrusting tip.

Strapping tape prefer ¾" or better.

Assorted colors duct tape.

PVC Glue, optional.

### **Equipment:**

Dead blow or Rubber head hammer.

Saw

1 1/4" drill bit

Hand drill or drill press.

Scissors for cutting tape.

If using rattan, skip to Step 4

**Step 1:** Hand start the  $\frac{3}{4}$ " pipe inside of the 1" pipe and then take your hammer and drive it in until the piece has gone all the through the outer pipe. Note, it easier if you pour some rubbing alcohol in first as this lets the piece slide in easier and will evaporate out quickly. It also helps to have another person help hold the outer pipe.

**Step 2:** Cut the combined pipe to a length not to exceed 5' in length. It is best to cut this an inch shorter so when you put on the end caps it does not exceed 5'.

**Step 3:** Tape on the PVC end caps. Make sure you have enough length of tape so that at least 3" of tape goes down the shaft. A simple X pattern will work for this. You may Glue the top end cap on and then tape it if you wish. The bottom cap is not glued on for inspection purposes. You now will have the shaft of the javelin complete

**Step 4:** The easiest way to make a thrusting tip is to go down to your local discount or pool supply store and buy a pool fundoddle. These are available in a variety of colors and generally about 2  $\frac{3}{4}$ " in diameter. Make sure you do not buy the ones with a hole already in the center, it will just push through. You could also build one out of blue smurf foam. A nerf football is also another possible head that you can use. If you use the fundoddle cut it to a 5" length. An average fundoddle will give a enough material for about a dozen heads. Then take your drill and 1  $\frac{1}{4}$ " bit and drill out the center approximately 2  $\frac{1}{2}$  " deep. Using a nerf football cut one end off so that you have a 1  $\frac{1}{4}$ " flat spot. Then drill it to a depth of approximately half way. Then cut of the other end off so that you have a 1  $\frac{1}{4}$ " flat spot. This is to help against the head penetrating to far into a helm.

**Step 5:** Next take the head and push it onto the shaft. Make sure that it seats all the way down. I usually will smack the end of the javelin against something solid. A coffee table works well. Now tape the head down using strapping tape using an X pattern. Make sure this covers the whole head and extends about 3" down the shaft. I also add a piece of suede to the head just to protect against push through.

**Step 6: (SILOFLEX ONLY)** Spiral wrap the strapping tape on the shaft on both ends securing the end caps in place

**Step 7:** Next take your duct tape and smoothly tape the head making sure to cover the head completely and include the part of the shaft with the strapping tape also. Remember thrusting tips must be clearly marked in RED.

**Step 8:** You may now mark the rest of the javelin to you preference. Be sure to leave the standards marking the Silo-flex visible. This is for inspection purposes and it will be failed at inspection if they are covered.

**Step 9:** Now mark the shaft near the bottom end with your SCA name, Group and Kingdom. I find it best to print out a label with a self-adhesive back and stick it on. Then cover it with clear packing tape to keep the label from wearing off.

**Step 10:** Weigh your new TnT---IT CAN NOT BE MORE THAN 2 lbs. If it is, start cutting off rattan---a four footer still throws well.

# West Kingdom Throwing Axe Construction

By Owen Flechyr

The following instructions are to make a “thrust and throw” legal throwing axe according to West Kingdom Combat rules. The basic axe construction is in black type, and all steps that are optional are in blue. The axes I make are made so that only the striking edge will feel like a good hit, and other parts of the axe that are likely to strike the opponent (back of handle, bottom of handle, and back of head) are padded. This makes it so that skill in axe throwing is required for the opponent to feel the blow, and when the axe is thrown back by the other side, that thrower must be skilled as well for the blow to take.

## Step 1 - Materials

You will need the following to construct the axe: rattan (at least 1.25 “ diameter), rigid leather, strapping tape, cloth tape, leather cord, closed-cell foam. I use a kneeling pad from the gardening section of a hardware store for a thicker piece, but multiple pieces of thinner foam will work.



## Step 2 - Rattan

Use at least 1.25 " diameter rattan for the handle and clacker. If steaming the clacker start at the end and measure up the handle (I use 16 ") and then the clacker, or striking edge.



## Step 3 - Steam-curving the Clacker

I steam the clacker to give it a curve like an axe blade. It is much easier to curve rattan with a handhold, so that is why the handle is on the outside. Steam the rattan over rapidly boiling water for 10-12 minutes with foil over the pot to force the steam into the rattan. Once steamed, bend it over your knee and hold for 60 seconds. Be carefull, it is very hot at this point. Over bend it past the desired curve, as it will relax.





#### Step 4 - Cut the rattan

Saw the rattan and the clacker from the stave. Round the ends of both the handle and the clacker. Notice the curve on the clacker.



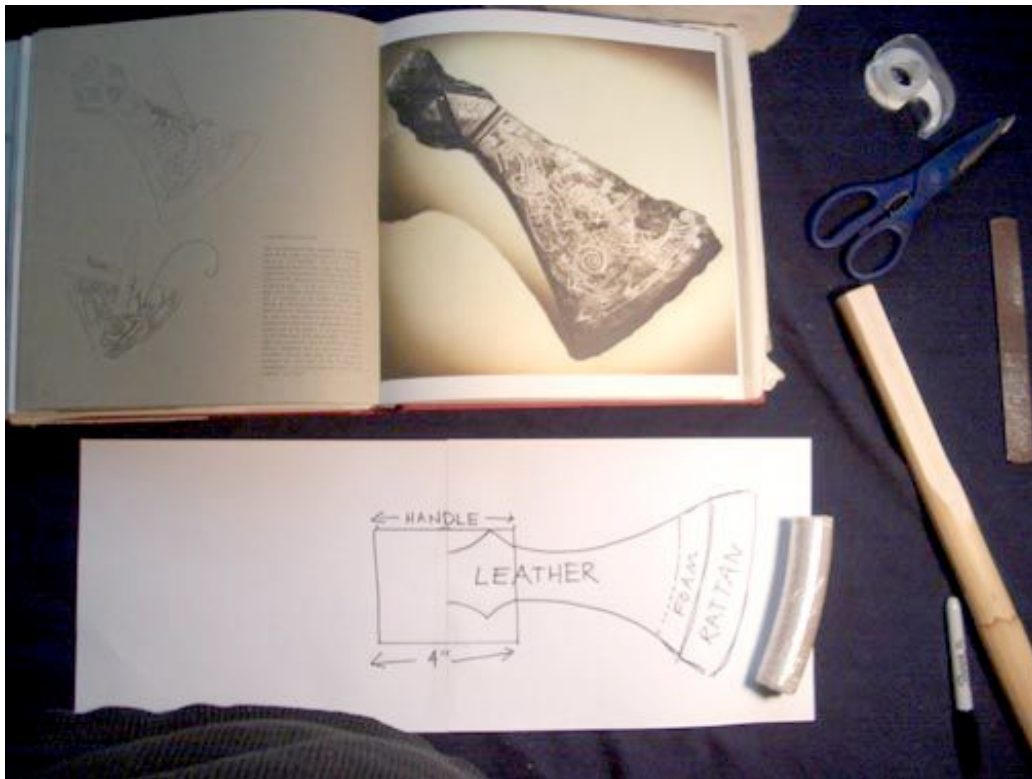
#### Step 5 - Rattan prep

Tape the clacker with strapping tape to prevent brooming. Carve the handle out along 1/3 the length. This will be the back of the handle, and will be filled with foam to prevent hard striking of the handle.



#### Step 6 - Axe shape

Draw the desired finished axe shape. I based this one on the Mamen Axe. At the middle of the design, allow 4" for the leather curving around the rattan. After you have drawn the shape, lay the clacker down on the edge and trace it, and then draw a line an inch further down. These will be removed from the pattern to make way for the clacker and the foam that will protrude past the sides of the leather. If the foam does not protrude, there will not be enough progressive give.



### Step 7 - Cutting out the leather

Double over the paper pattern and cut it out, leaving out the rattan and foam parts. Trace the design down to the rigid leather and cut it out. This piece will wrap around the back of the handle.





### Step 8 - Closed-Cell Foam

Place the leather around the handle, and insert the foam into the gap. Trace the head onto the foam or layers of foam, and be sure to add an inch of blade that extends past the axe edge. Tape the foam into the leather head. *If you cut the handle back, fill in the gap with foam (it will be compressed down to the round handle shape during taping).* Also add two layers of the thinner foam to the base of the handle to pad the handle end. This can strike a helmet and feel just like a good blow.



### Step 9 - Securing the head

Drill two holes in through the leather and the rattan. Insert a leather cord through one hole, and back through the other. Tie the loose ends tightly. This will prevent the head from rocking, and it is also a requirement that thrown axes heads be attached Securely to the handle.





## Step 10 - Taping

Tape the clacker securely to the head. Add two pieces of thin foam to the back of the head, opposite the striking edge. This is another point where the axe may contact a helm when thrown incorrectly. Padding this makes the blade the only strike that hits well. Tape the entire head with strapping tape (not shown) and then cover it with cloth tape. Tape down the handle grip. It is required to tape the striking edge with contrasting tape. It is also required to write your name and group (or kingdom) on all thrown weapons. I find the inside under the head to have the least wear.



## Step 11 - Weigh the weapon

Weigh the thrown weapon on a small scale. All thrown weapons must be under two pounds. Now you have a deadly thrown weapon, but only if you practice throwing it!



# LEATHER THROWING AXE HEAD PATTERN

