

You will need the following supplies to create one hinged mace (more commonly called a flail) with an 18" chain and striking surface and padded handle:

- 1 Funoodle™
- 1 length of 3/4" PVC pipe
(minimum 18" suggested length)
- At least 36" of 1/8" all purpose cotton cord. (Try to get a cord that does NOT stretch.)
- 2 3/4" CPVC End Caps
- 1 Racquetball
- 1/2 yard fabric of your choice for cover.
- 2 pieces of scrap open cell foam (sugg. 2"x4"x8")
- 1 piece of pipe insulation (only 4"-6" needed)
- PVC Glue (Optional)
- All-purpose Hobby Cement (or Contact Cement)
- Drill with 1/4" bit
- Scissors
- Hack Saw
- Duct Tape
- Spare foam/pipe insulation/Funoodle™ chunks

Substitutions can be made at your discretion, but for purposes of this 'how-to', we will assume you have the above materials and are making one flail. This design can easily be adapted to include multiple 'heads', larger striking 'heads', or any other desired version of hinged mace. Feel free to elaborate, but always remember: **SAFETY FIRST!**

*(**note: The flail in this how-to is designed with Wetlands weapons rules in mind. The basic rules observed are all 'potential' striking surfaces must be padded at least as well as 'intended' striking surfaces and there may be no 'tape knots' nor solid parts in the construction of flail heads.)*

*(**note: Some kingdoms require that the handle of a flail be less than 18" as well as the combined chain and striking surface. Check with you local GM of reeves to learn any limitations to hinged weapons before building your flail.)*

- 1) Cut the PVC to the length you desire for the handle. 18" is the most commonly seen handle length but some people prefer longer reach, and therefore a longer handle.
- 2) Cut a piece from your Funoodle™ approximately 7"-8" shorter than your piece of PVC— about 11" if you are making an 18" handle.
- 3) Drill a hole in the center of one of the PVC caps.

HOW TO MAKE A QUICK & EASY AMTGARD-LEGAL 'HINGED MACE' OR 'FLAIL'

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- 4) Drill a hole through ONE SIDE of your PVC about 1" from the end. (Fig. 1)
- 5) Cut a length of cord 36" long.
- 6) Cut 4 or 5 1" segments of pipe insulation.
- 7) Cut a 3/8"-1/2" hole in the Racquetball. Use scissors and BE CAREFUL. This can be harder to do than it sounds. You may find it easier to use an X-acto® Knife.
- 8) Push the ends of the rope, from outside through to the inside, through the hole you drilled into the PVC. (Fig. 1)
- 9) Pull the ends of the rope up through the end of the PVC. Push both ends through the hole in the PVC end cap, bottom to top.
- 10) Coat the ends (about 1/2" of each) in PVC cement or contact cement. Press end caps onto pipe with a half twist to insure good adhesive coverage.
*(**note: The ends of the rope should be hanging freely through this assembly.)*
- 11) Pull the rope ends so that all slack is taken up. Put the rope ends through the exposed 'loop' made by the rope coming through the holes in the pipe. Pull until snug and then knot into place. (Fig. 1)
- 12) Apply cement to 3/4 of the total length of the PVC with end caps (core). Apply adhesive evenly. 'Globbing it on' will make it dry slower and bond less durably.
- 13) Slide the core into the Funoodle™. If you have a

solid Funoodle™, cut a slit down one side and lay the core in like a hot dog in a bun. Leave about 8" showing for the grip and pommel. (**note: It is advisable to push the base of the core through first an then force the Funoodle™ over the rope.)

- 14) If you used a solid Funoodle™, tape the seam shut with the core inside.
- 15) This SHOULD leave you with a 'gap' where the ropes come through the hole made for the core. Plug this securely with a small piece of spare foam. It should be glued into place at the top of the core. Tape OVER it with a piece of tape to prevent slippage during use.
- 16) Tape the top and around the edge tightly so that it covers any sign of the core. A good flail is SAFE and as well padded on the handle as any legal striking surface would be.
- 17) Tape the bottom of the Funoodle™ to the core.
- 18) Thread the 1' sections of pipe insulation onto the rope. (They should be loose on the chain and slide back and forth freely.)
- 19) Tie a square knot 12" from the top of the handle.
- 20) Tie a knot around the middle of the open cell foam (sugg. 2"x4"x8") on top of the square knot you just tied in step 19. Fold the foam over so it covers the knot. (Fig. 3)

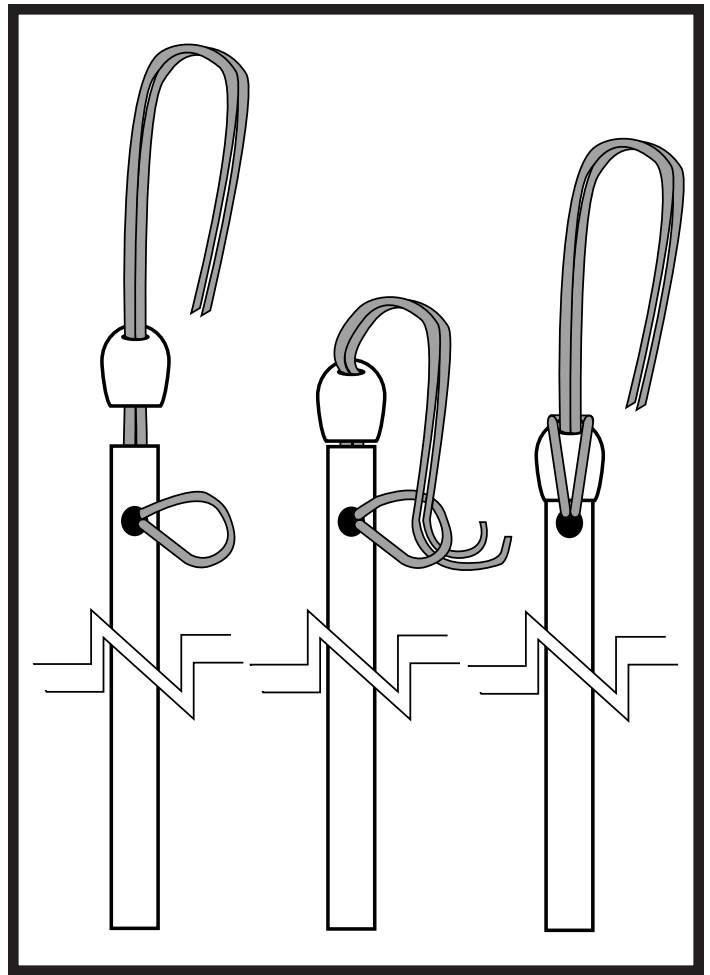


Figure 1: Detail of PVC, cap and rope assembly.



Figure 2: A large flail being used in mock combat.

- 21) Fold the other piece of open cell foam over the piece you just folded in step 20 and use a small piece of tape to secure it temporarily.
- 22) Check the length of the rope and striking surface. It should be only 12" long from the top of the handle to the square knot. The head should add another 5" to 6". The combined total length of chain and striking surface cannot legally exceed 18". If it does, either trim down your foam or shorten the distance between the square knot and the top of the handle.
- 23) Slide the cover over the top of the head of the flail, over the 'chain', and over the handle.
- 24) Space the pieces of pipe insulation on the rope with your fingers and then wrap a small piece of tape or tie off with a short piece of cover fabric. This will give the chain its 'knotted' appearance and allows flexibility while keeping the chain safe to opponents when in contact with them.
- 25) Pull the remainder of the cover over the handle and tape to core near the grip.
- 26) Tape the Racquetball (or sufficient padding) to the pommel. (Bottom of 'haft').
- 27) Wrap grip to taste.
- 28) Pretend for a moment that you need to repent for something and hit yourself a few times HARD with your new flail. If it hurts you, its likely to hurt your opponent. If it feels OK, (and it should if you followed these instructions), take your new hinged mace/flail out to the park and find some unsuspecting Amtgarder to try your new weapon out on!

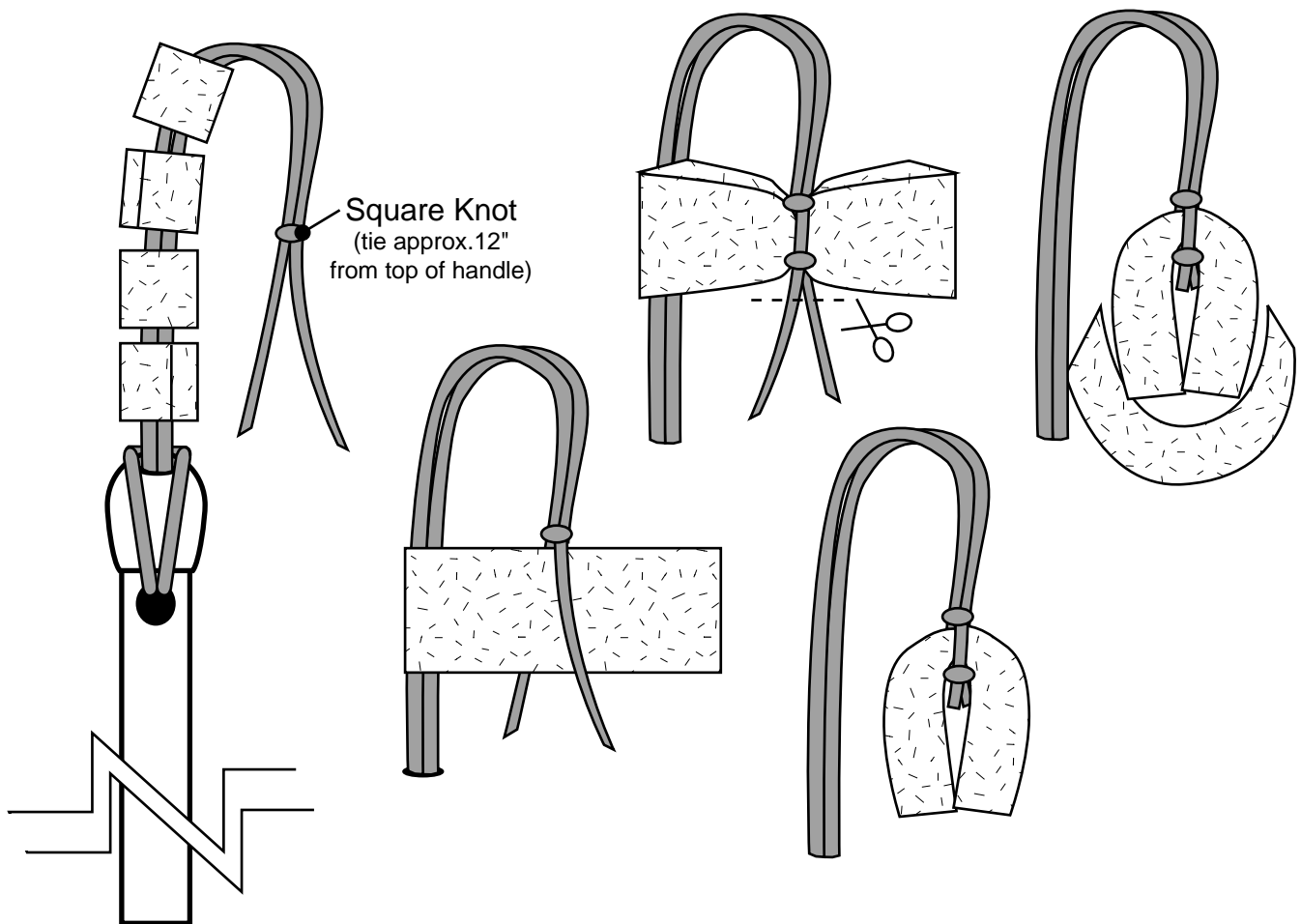
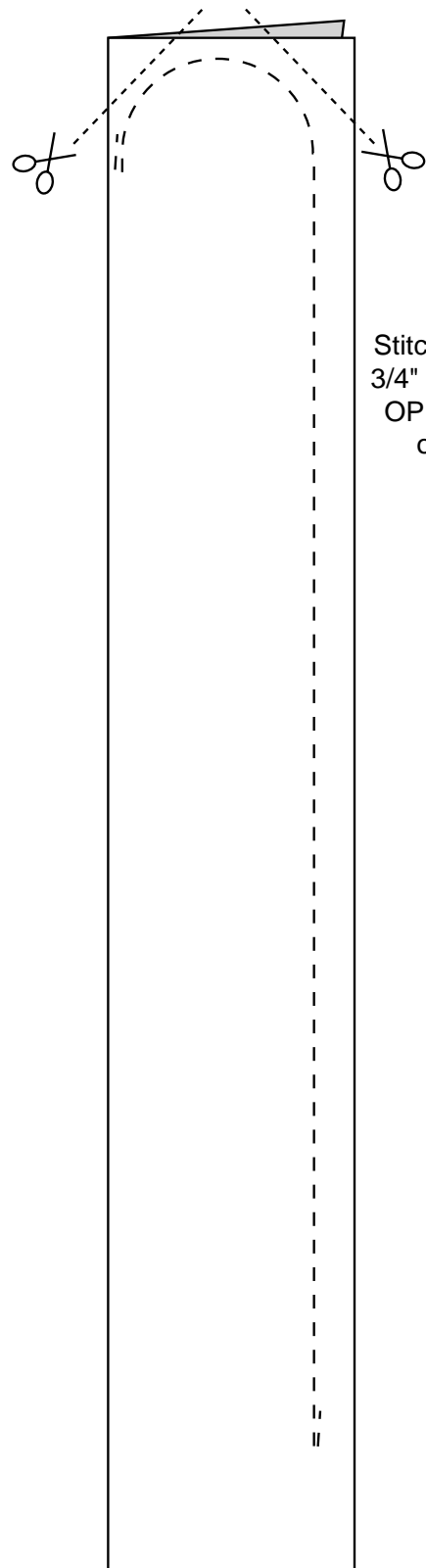
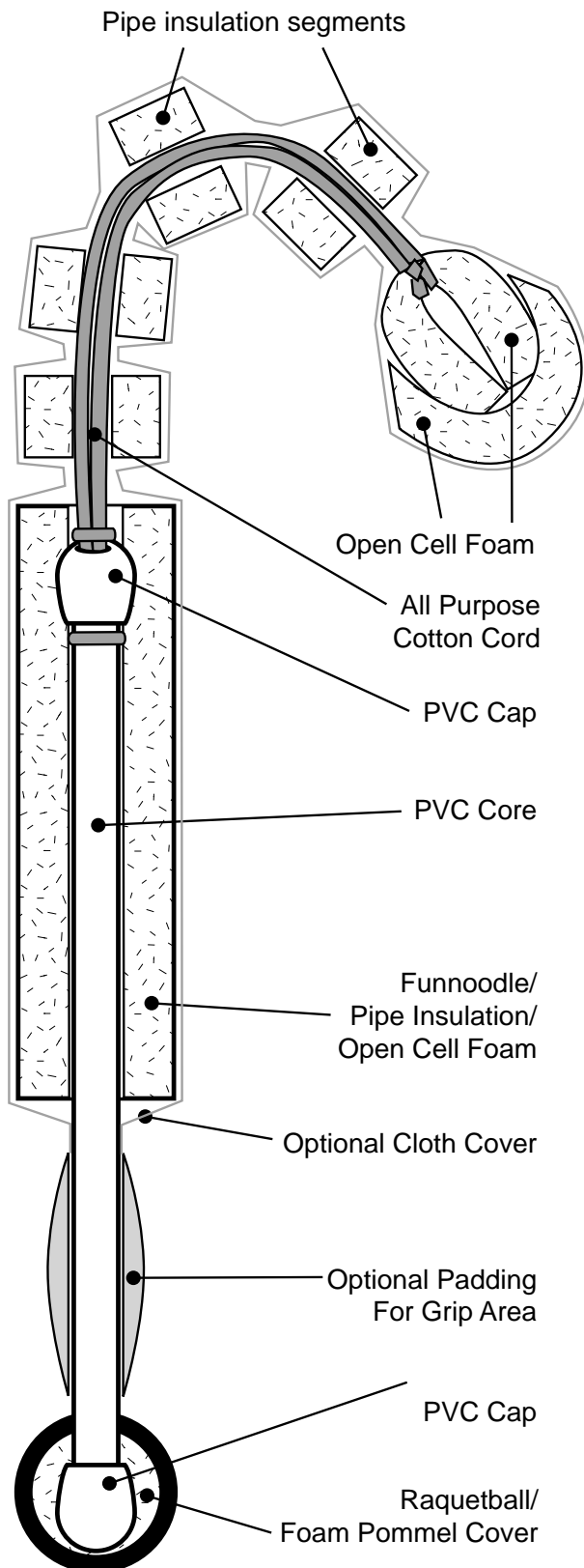


Figure 3: Flail Head assembly



11" x (22"+/- Length of handle - grip)
 (about 40" for a 'flail' with an 18" handle)
 Piece of Cloth
 (5 1/2" wide folded)