

# How to Make "Chain Mail"

by Frank Deis

The design of protective mail (or "chain mail") is remarkably constant over thousands of years and thousands of miles. There is a book on Tibet in the Highland park Public Library. The cover photo shows Tibetan soldiers wearing mail shirts (in the 20<sup>th</sup> Century!), and the design appears to be the same as the mail used by the ancient romans. The appearance of mail can vary greatly with the thickness of the wire in the rings, but generally speaking the connections between the chains is as depicted on this sheet. The ancient Romans had elaborately forged links each of which looked like a little fish, with a head on one end and a tail on the other. Mediaeval "double mail" appears to have twice as many rings, but actually is just made of rings which are twice as thick.

Knights in the middle ages would have entire suits of mail which would be worn under their plate armor. They would have mail head-dresses under their helmets, mail shirts and mail pants complete with "mail socks." This afforded some insurance in case a sword or spear found its way between the crevices in the plate armor. Only the wealthiest nobles would have had plate armor. The poorer knights and soldiers would have had to make do with just the mail, sometimes mounted on thick leather garments.

Notice that each ring is connected only to the rings "Northeast, Southeast, Northwest, and Southwest" of it. There is no connection to the rings at the "North, South, East and West." This pattern should be rather simple to follow but it is wise to pin the top row of rings to a board so that the mail will lie flat whilst you are working on it. Otherwise it can get VERY confusing and you can wind up with a 3-D Chinese puzzle instead of a planar sheet of mail!

I made my mail by buying screen-door springs and a strong bolt-cutter. Tin snips are NOT strong enough to cut steel wire. Spring steel is one of the strongest kinds of steel. I cut the spring into a bunch of rings (keep the gaps as small as possible). Then I assembled the mail by bending each ring open with pliers and a vise-grip, attaching it as appropriate, and bending it shut. It is not a very difficult job, but it takes a long time to make a significant amount of mail!

