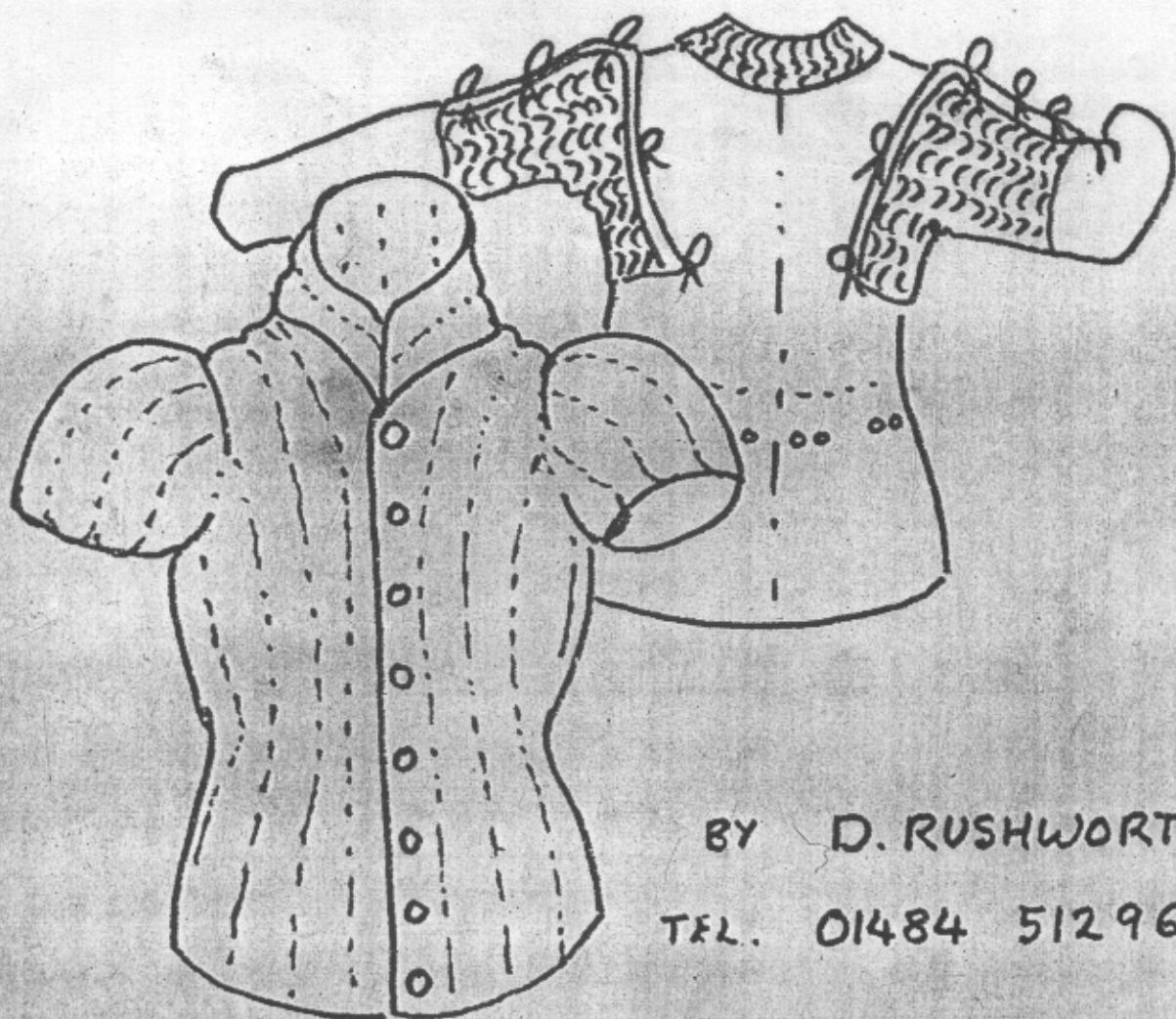
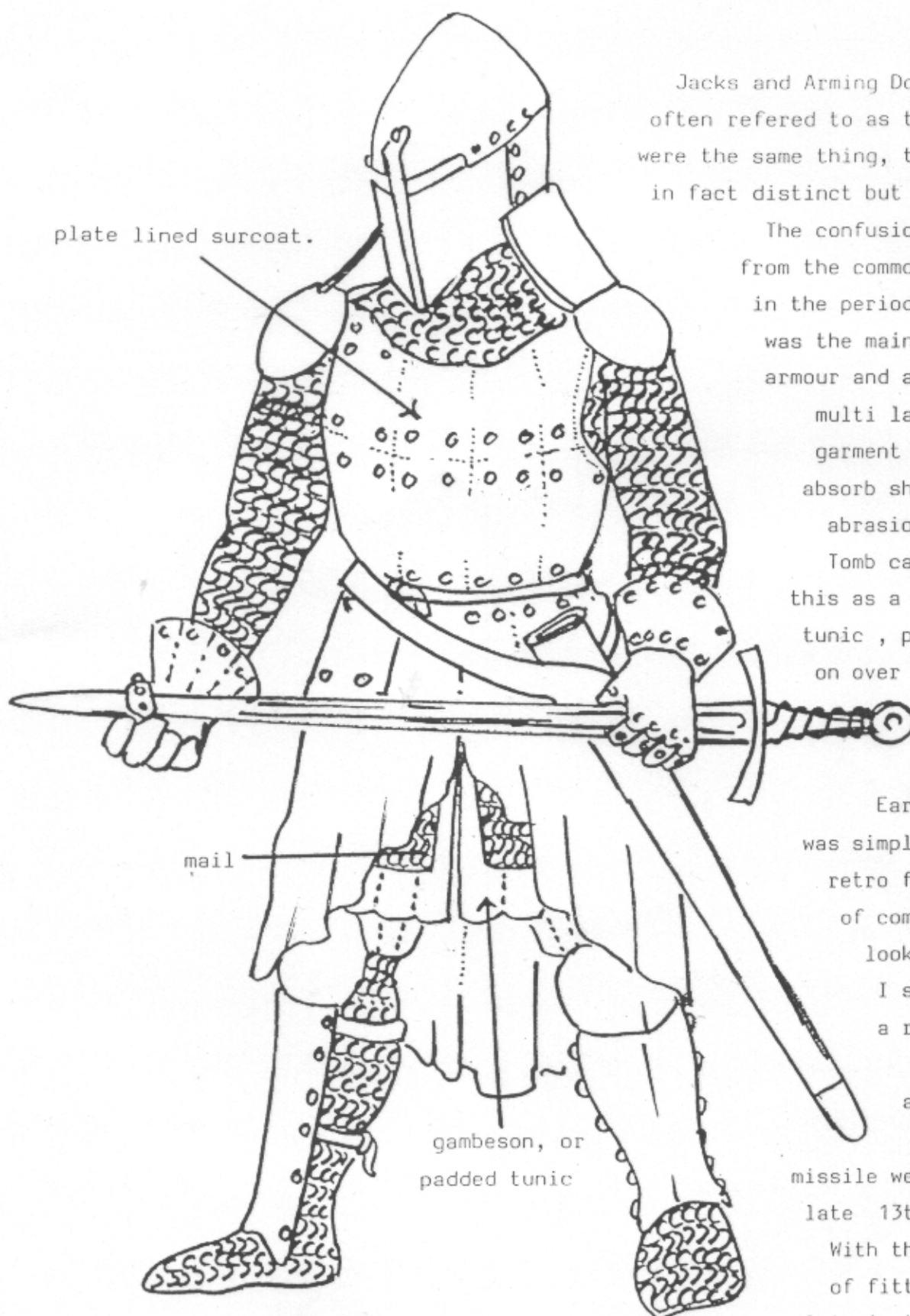


A HANDBOOK OF JACKS & ARMING DOUBLETS



BY D. RUSHWORTH
TEL. 01484 512968



Jacks and Arming Doublets are often referred to as though they were the same thing, though they are in fact distinct but related.

The confusion arises from the common ancestry in the period when mail was the main form of armour and a padded or multi layered under garment was worn to absorb shock and prevent abrasion.

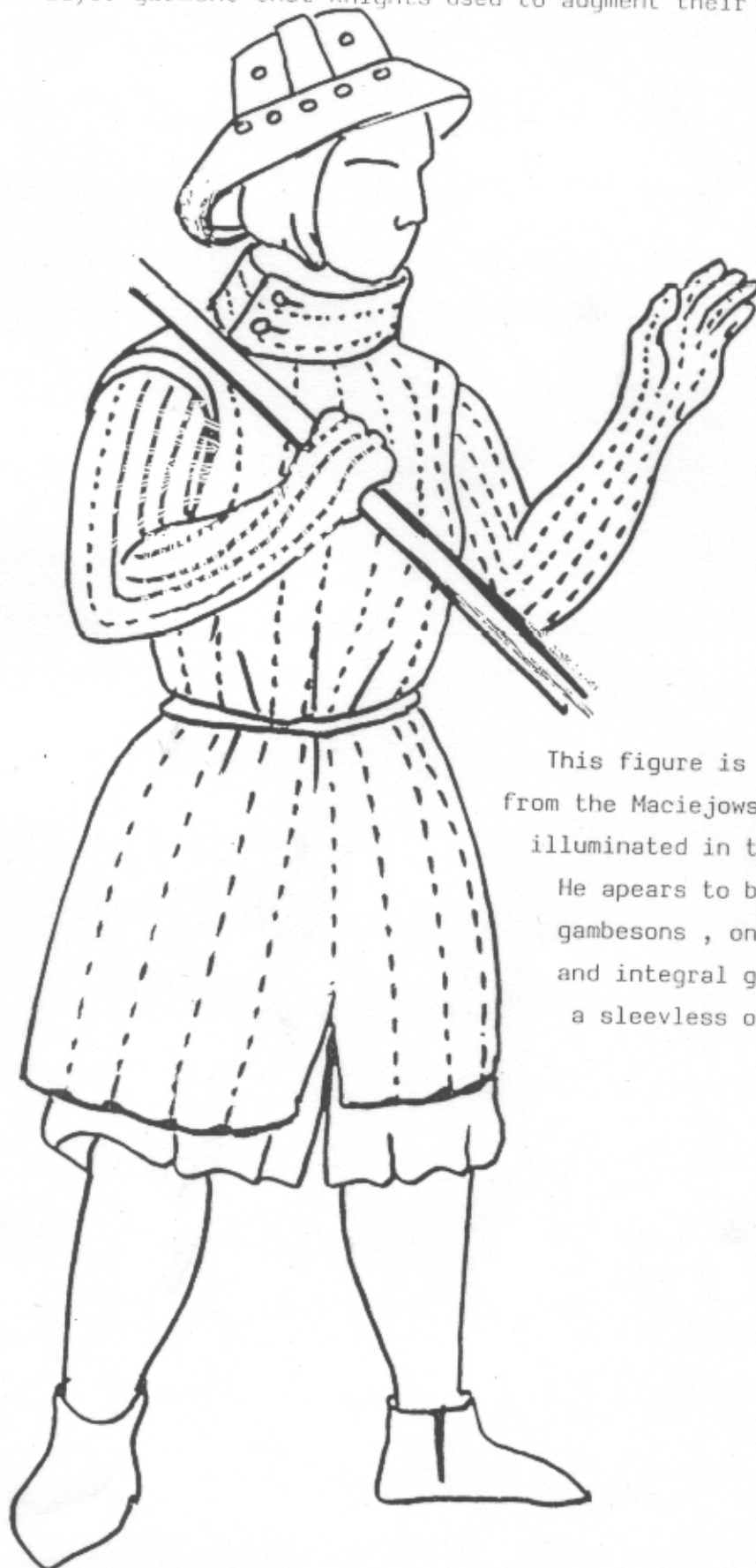
Tomb carvings portray this as a thick padded tunic, probably put on over the head.

Early plate armour was simple, often retro fitted to an arm of complete mail, and looks improvised.

I suspect it was a reaction to the widespread appearance of effective missile weaponry in the late 13th cent.

With the introduction of fitted shaped plate in the 14th cent there had to be changes

Mail was and is an expensive armour, foot soldiers needed something cheaper, and lighter. The answer was the use of the same padded or multi layer garment that knights used to augment their armour.



This figure is redrawn from the Maciejowsky Bible illuminated in the mid 13th cent. He appears to be wearing two gambesons , one with sleeves and integral gloves, and a sleeveless one over the top.

Medieval plate was generally laced to fitted undergarments lined padded and sewn with eyeletts for laces to secure the individual plates to the wearer.

there were two schools of thought on the subject of what went on the body. in

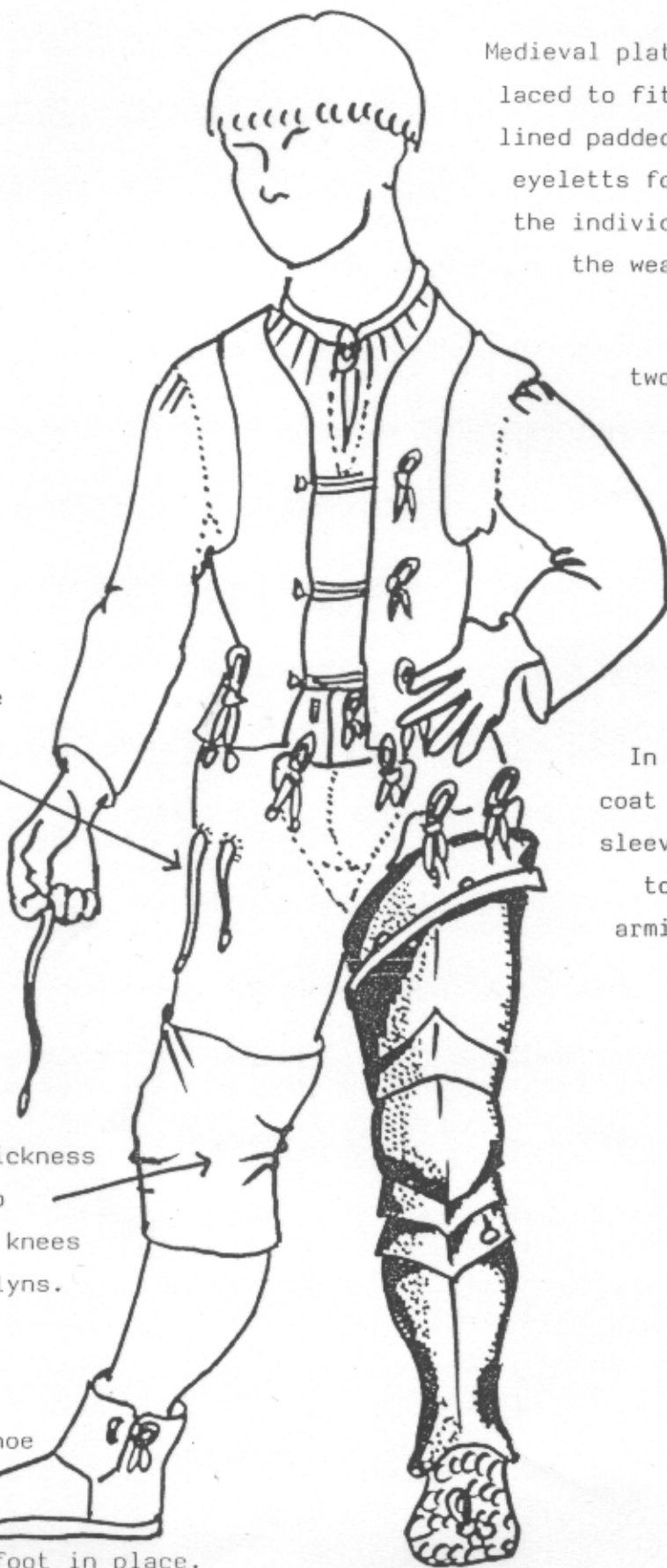
In this case a petty coat is worn , a simple sleeveless doublet to hold up the arming hose.

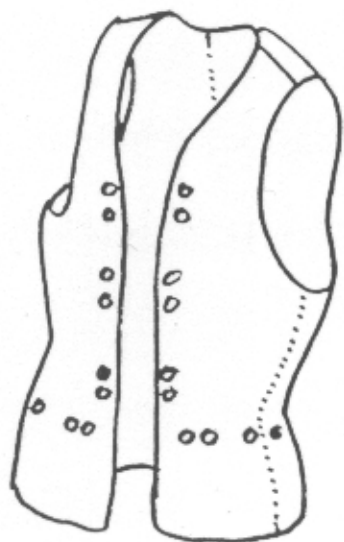
laces for the leg armour or cuisse

Double thickness blanketing to protect the knees from the polyns.

padded arming shoe with lace

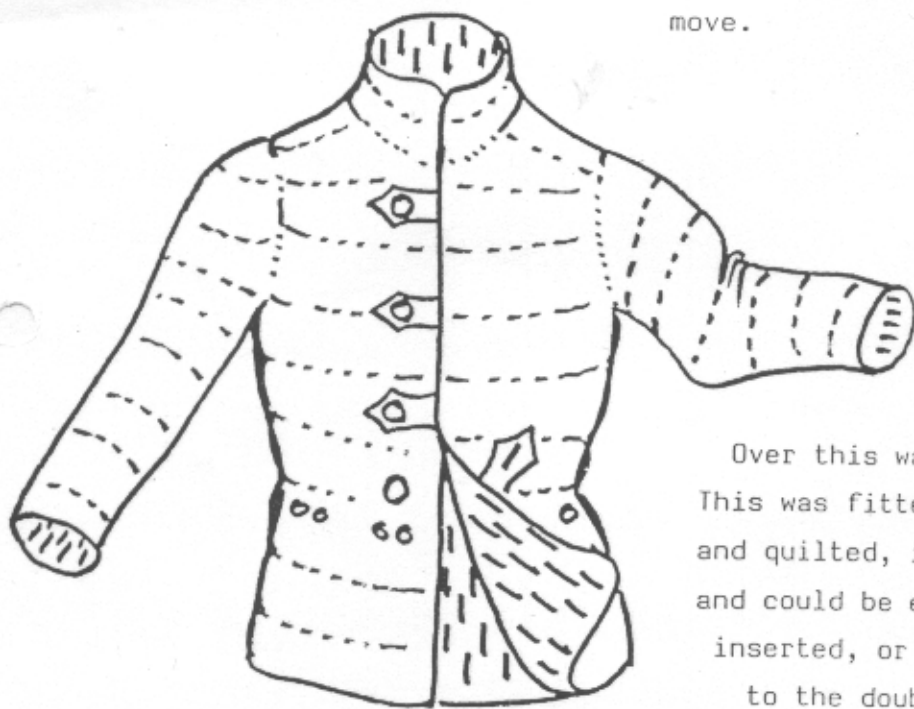
to hold armour for the foot in place.





The petty coat was of two thicknesses of linen ,cut to fit very closely, open at the front so that it could be laced tightly.

Note that it is narrow over the shoulder to leave the arm free to move.



Over this was worn the arming doublet. This was fitted to the body, padded and quilted, in this case horizontally, and could be eyeleted for laces to be inserted, or the laces could be sewn to the doublet.

This drawing is based on a German original, which fastened by leather tabs and leather buttons, laces appear more often in contemporary illustrations

Also of note earlier arming doublets, and particularly German arming doublets were made to be worn with a full mail shirt over the top, laced on mail panels, voidures, were a later and perhaps Italian inovation.

There was another school
favoured an all in one
and the arming doublet
skin, lined in satin
so that the silk lining
skin with sweat.

of thought which
approach, no shirt
goes on next to the
and pinked inside
does not seal to the

laces at the
shoulder for
rerebrace.

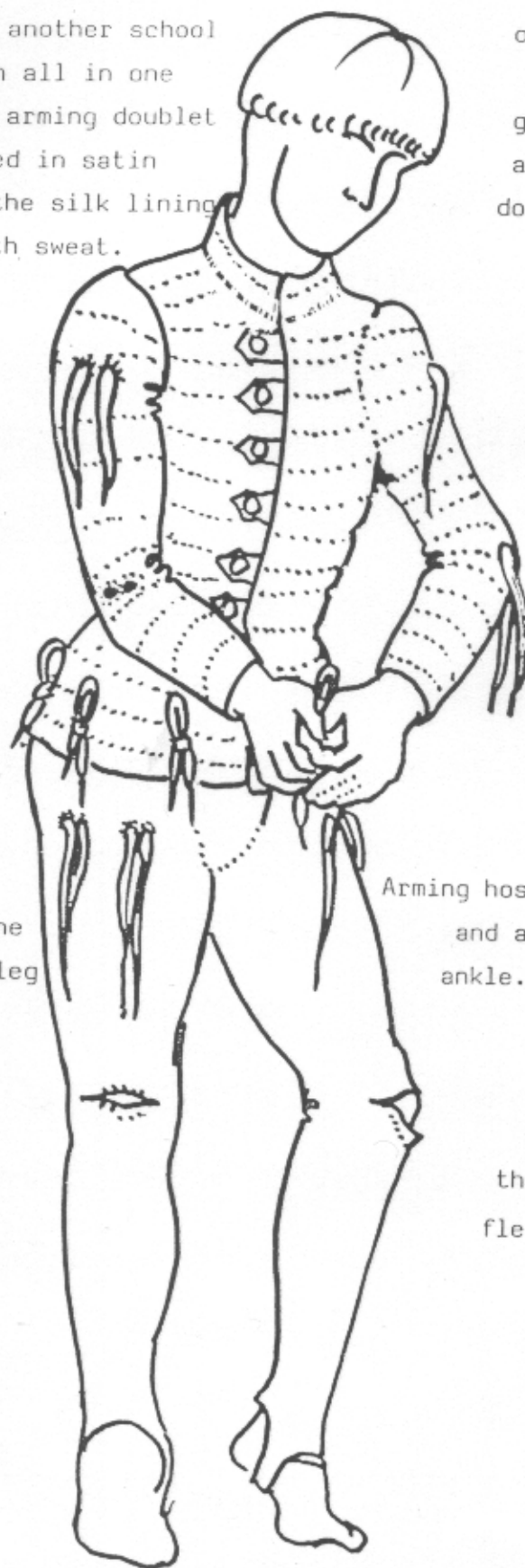
laces at the
elbow for the
couter.

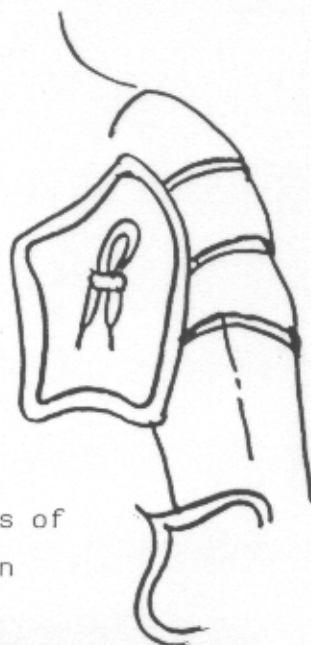
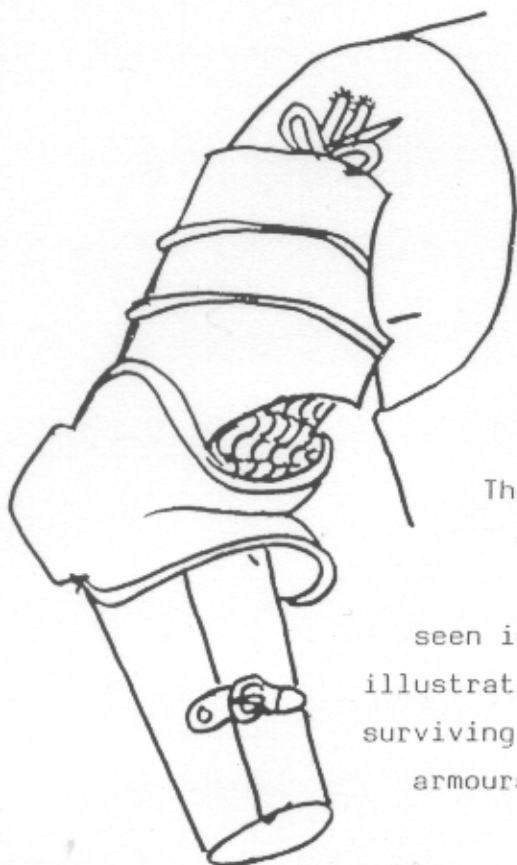
eyelets at
the hip for
the arming
hose.

laces at the
top of the leg
for cuisse.

Arming hose are not footed,
and are lined to the
ankle.

hose slashed at
the knee to aid
flexing of the leg.





These are all pieces of
armour laced to an
undergarment
seen in contemporary
illustrations or on
surviving originals
armours.

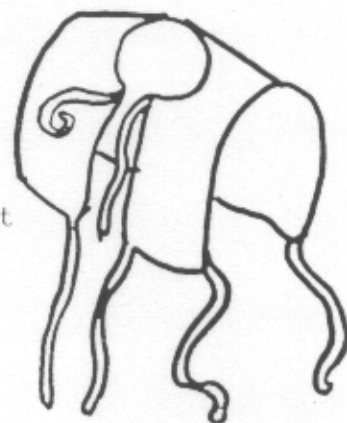
When you know what
to look for they
appear all over
the place.



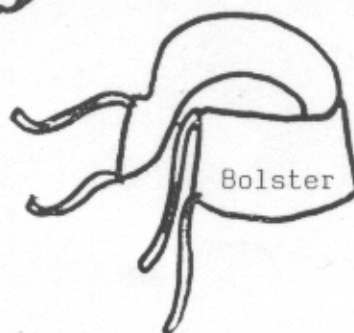
Some times the arming
doublet was augmented
by padded shoulder
and hip pieces.

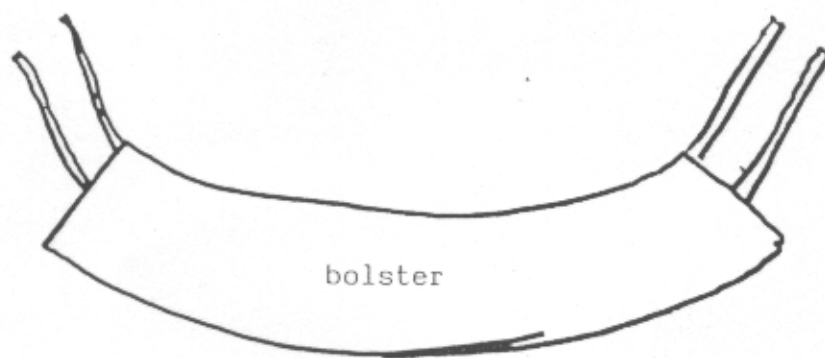
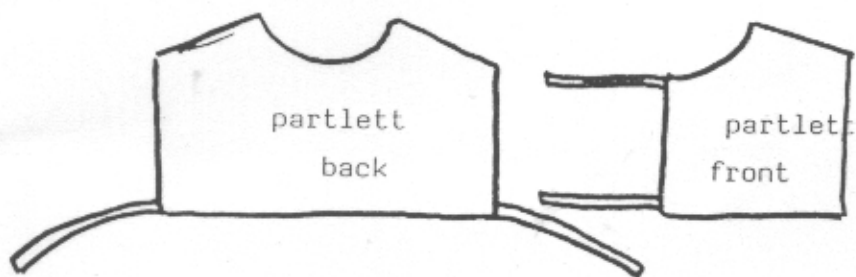
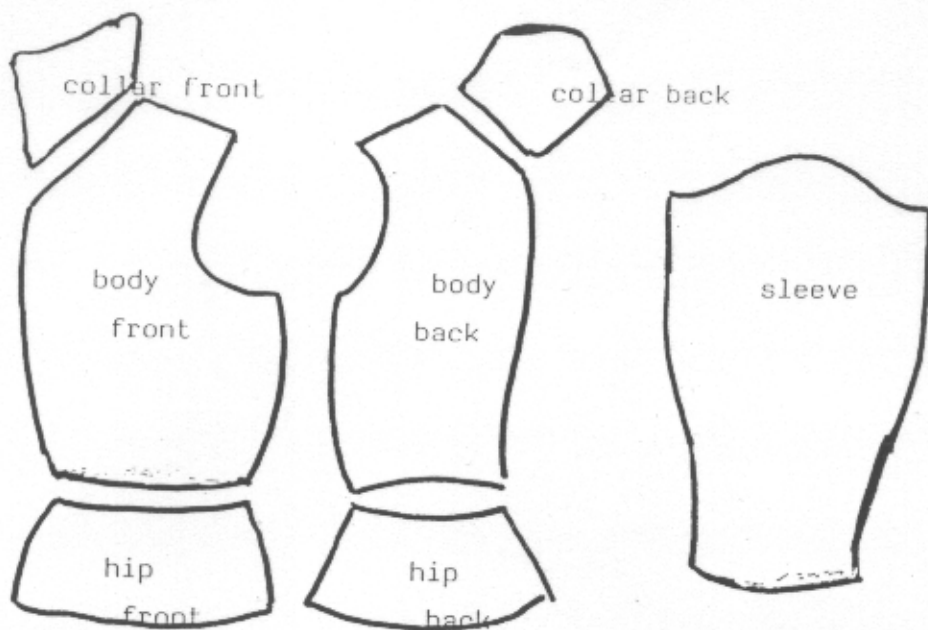
By the end of the
16th cent.
these replaced
arming
doublets.

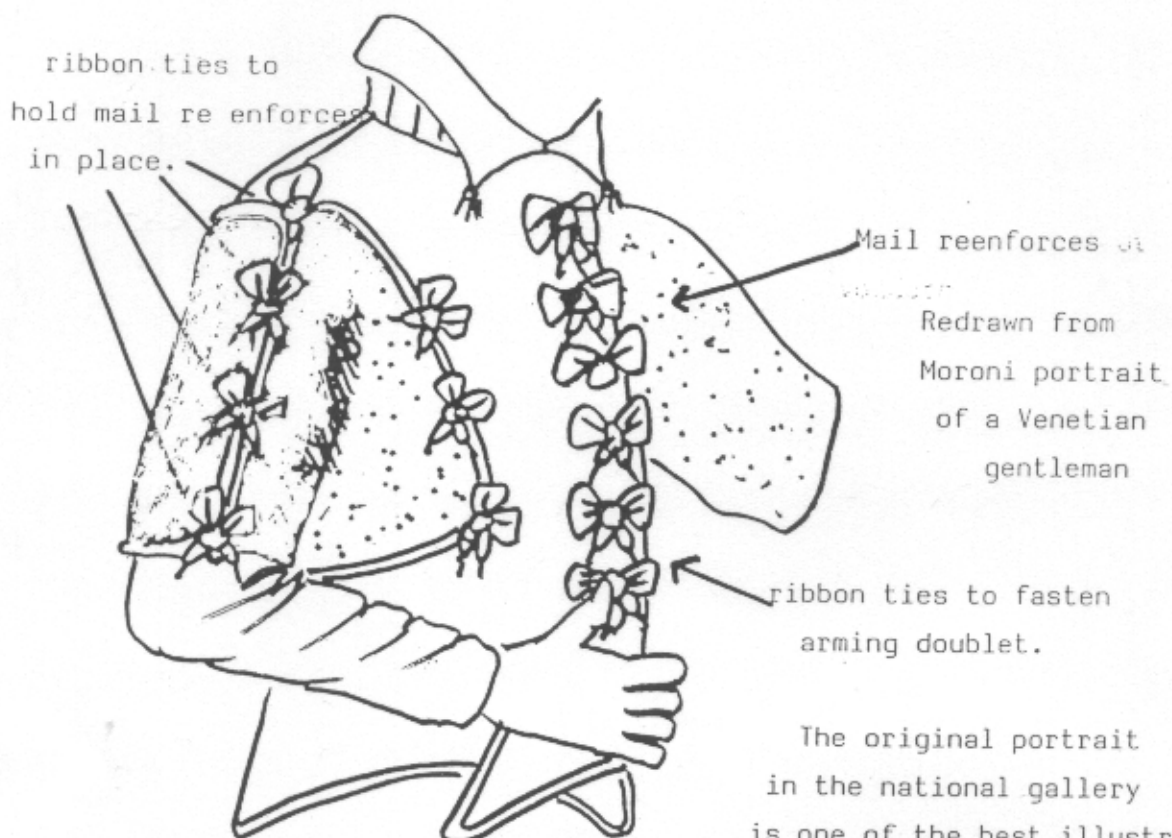
Partlett



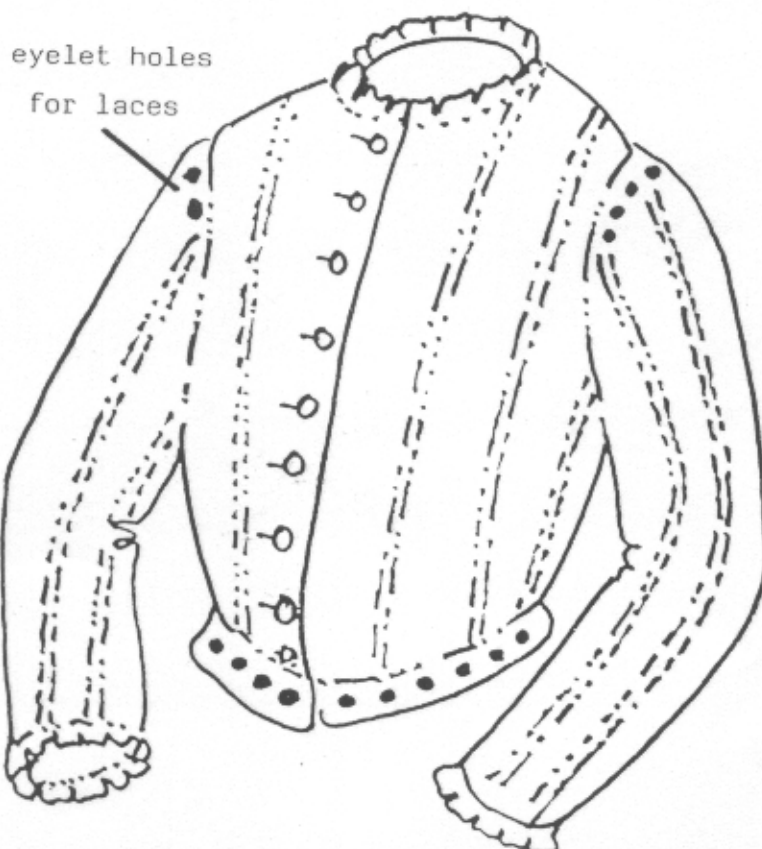
Bolster



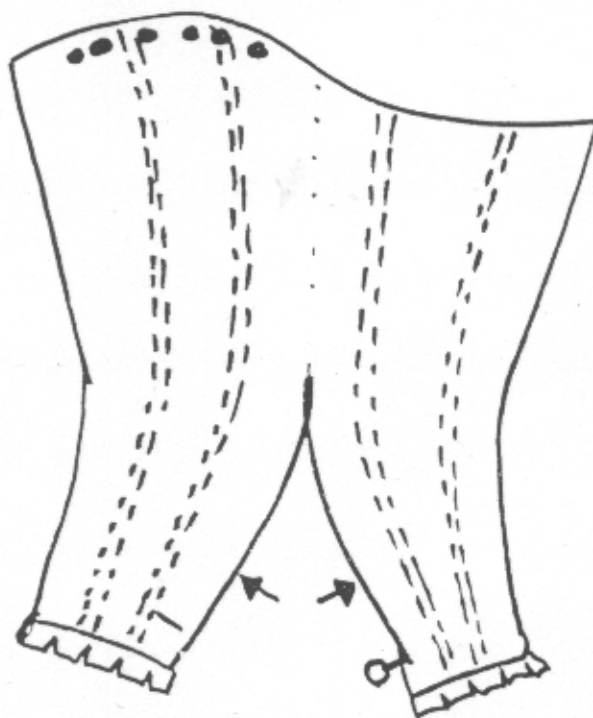
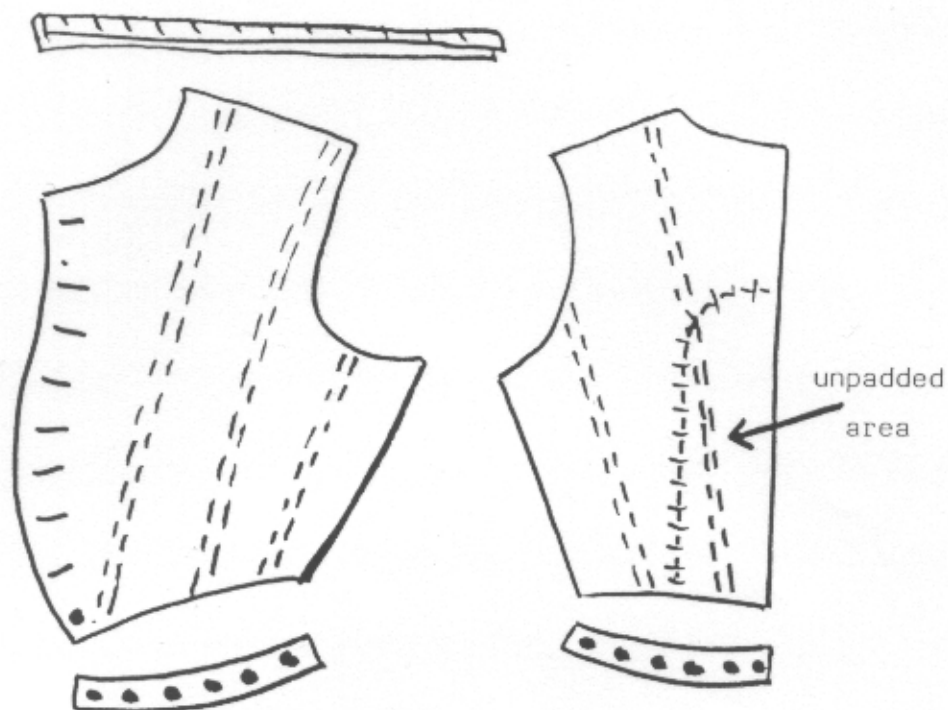




The original portrait in the national gallery is one of the best illustration of a 16th cent arming doublet around.

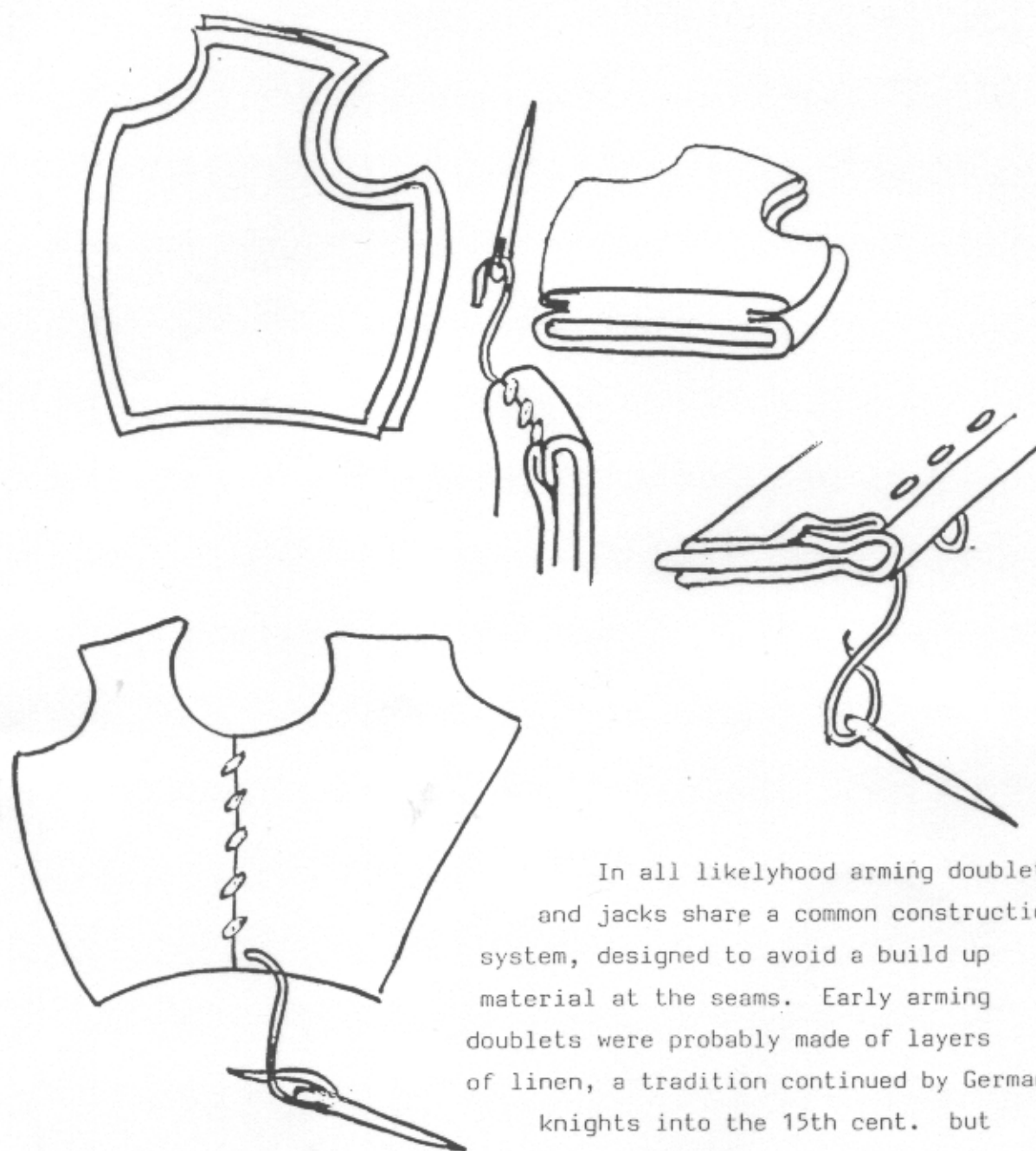


scetch
sketch of a 16th cent. garment believed to be an arming doublet property of the Royal Scottish Museum Edinburgh.



open cuff fastened
with one button.

Pattern for 16th
cent arming doublet
in red silk, interlined
with linen and padded
with cotton wool,
lined with white
linen.

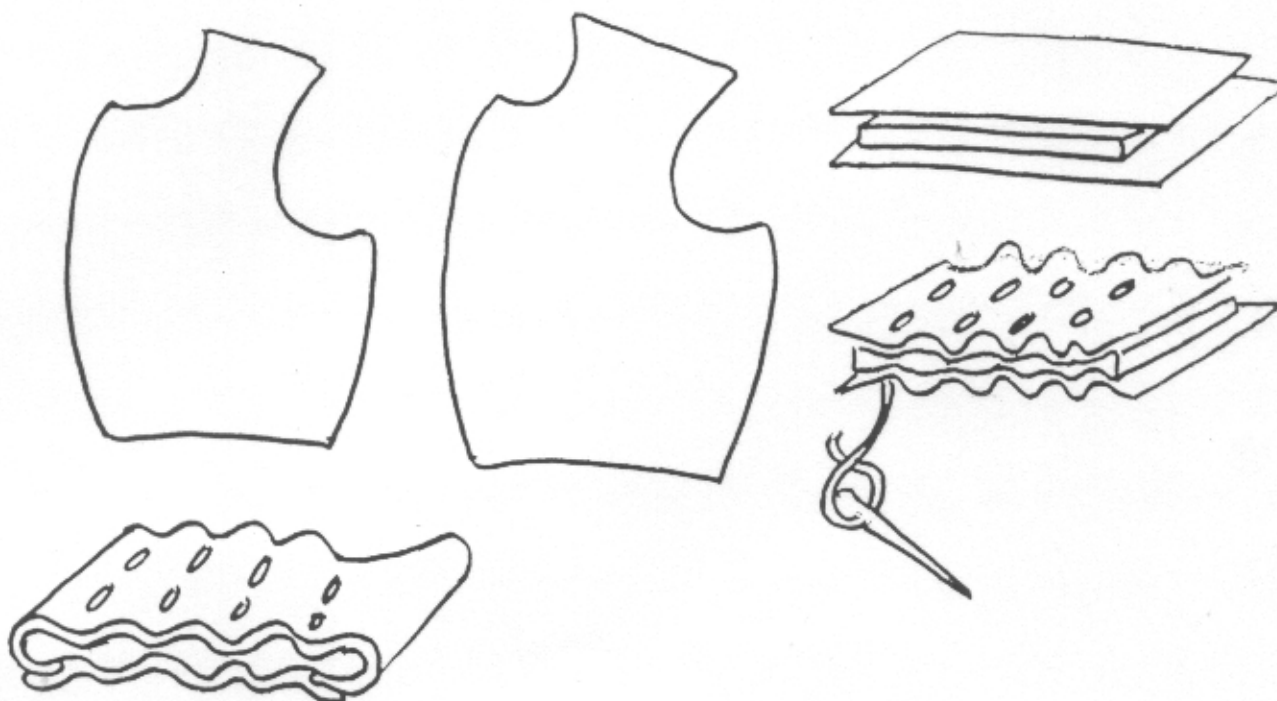


In all likelihood arming doublets and jacks share a common construction system, designed to avoid a build up material at the seams. Early arming doublets were probably made of layers of linen, a tradition continued by German

knights into the 15th cent. but

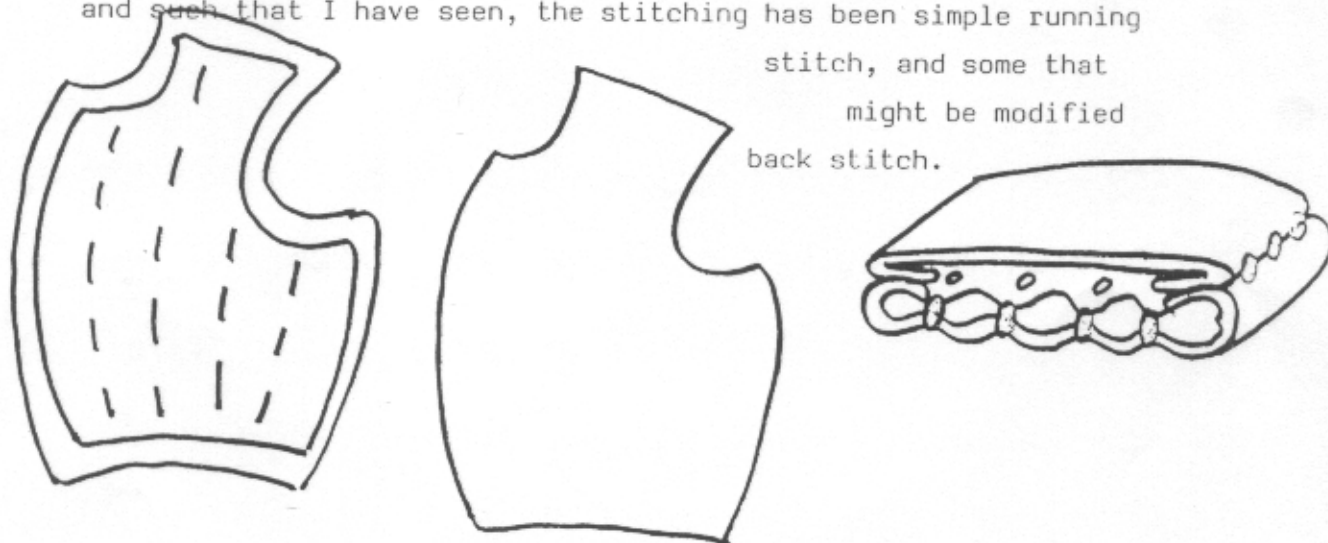
later garments, certainly those in Burgundy, were padded with cotton waste, or teased out wool, between two layers of strong fabric.

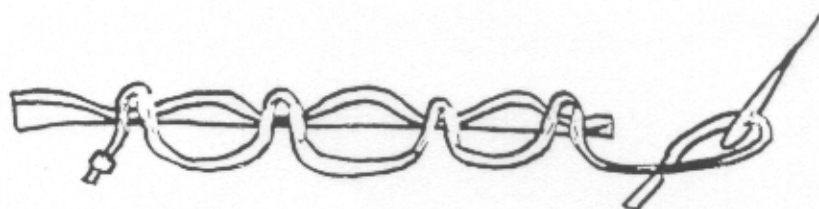
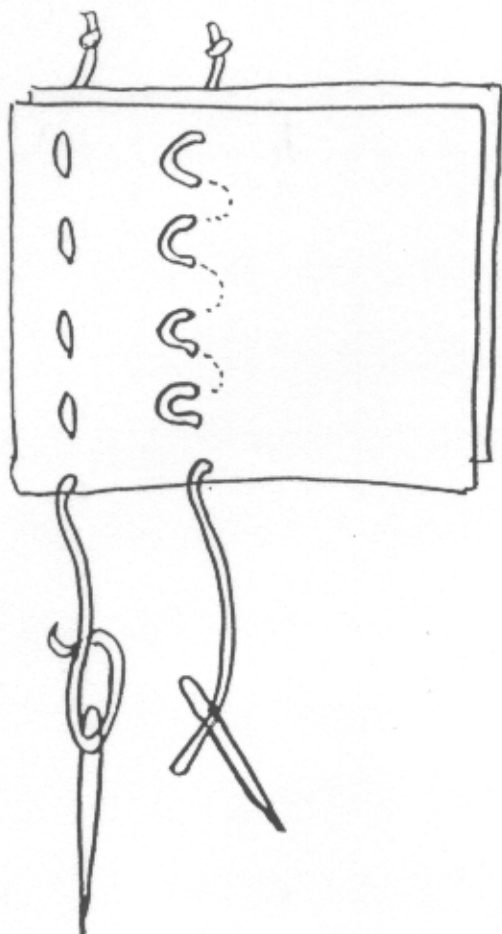
Note how the two outer layers are cut large enough to wrap over the filler layer, and be stitched around it either whipped or back stitched through, to make a unit. These units then butted together and whip stitched together to assemble the complete garment.



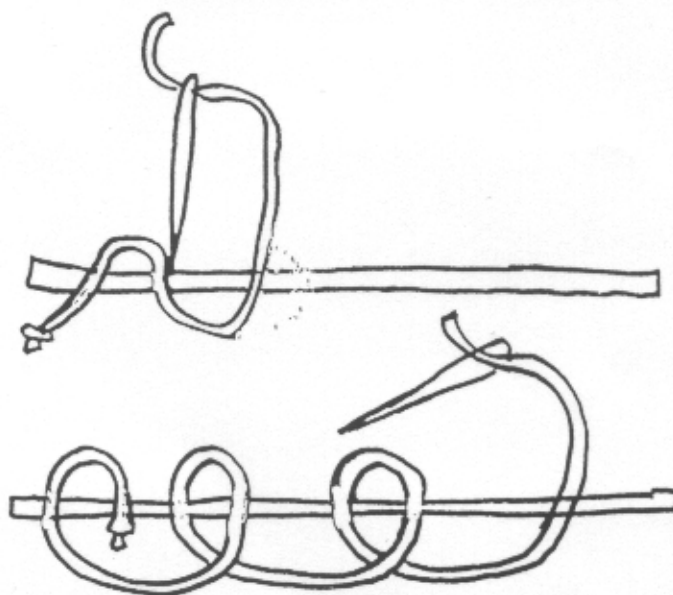
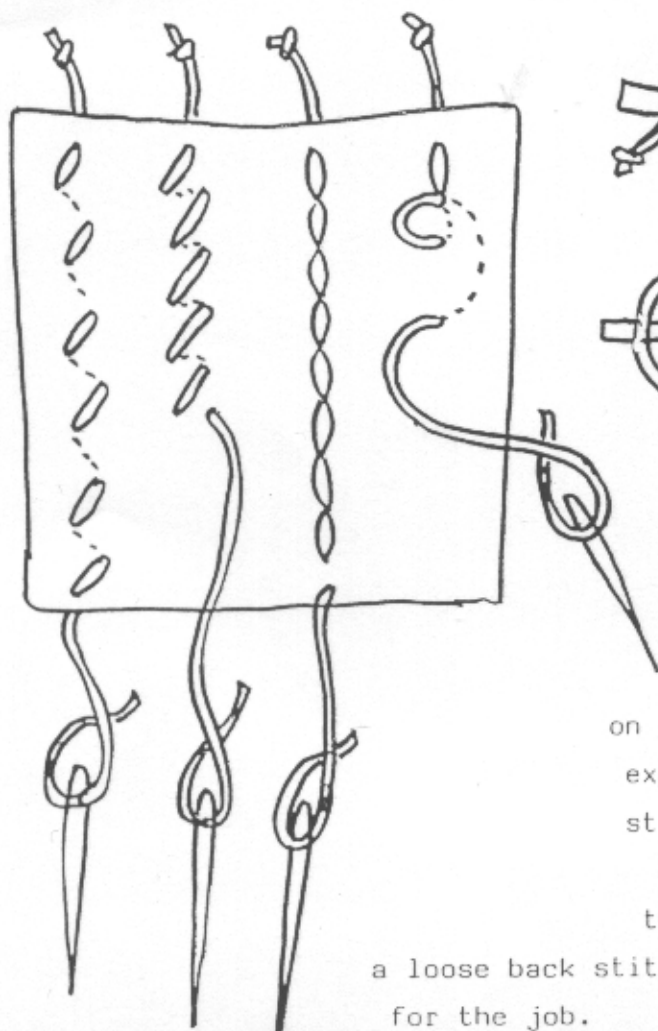
Quilting the layers together stops them from moving about and ruckling, it also stiffens the panels considerably, not always a desirable state of affairs.

On the few original pieces of armour padding, protective quilting and such that I have seen, the stitching has been simple running stitch, and some that might be modified back stitch.

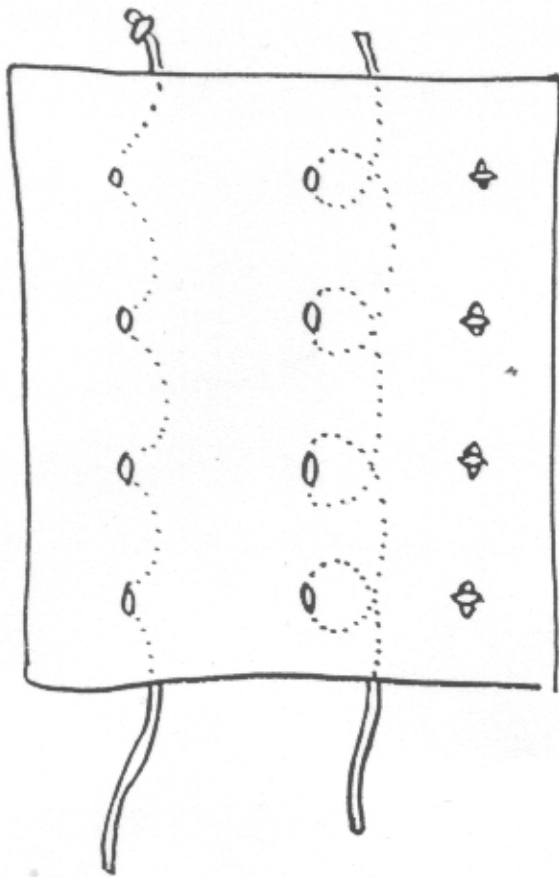




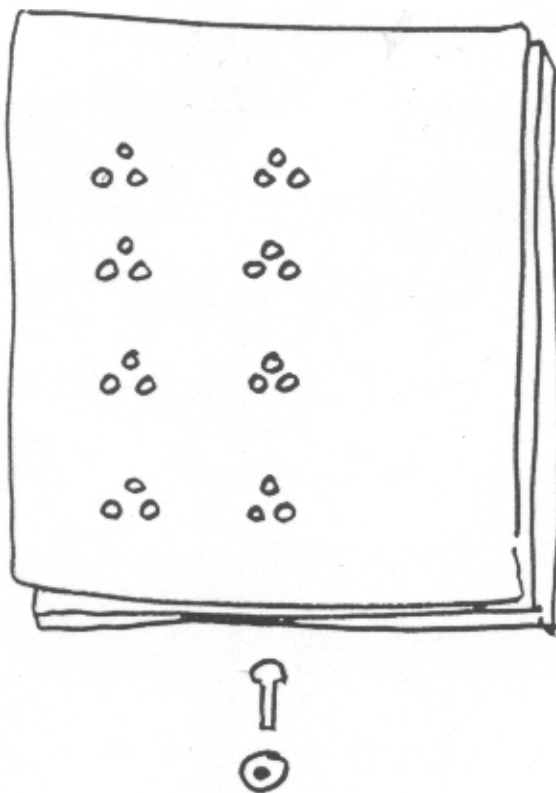
The diagrams give some idea of the variations in quilting stitches that I have seen. I have so far not seen any examples of lines of stitching crossing each other, the squared effect is achieved by spaced stitching, rather like the buttons on upholstery.



The zig zag effect of the two examples on the left I have seen used on armour padding, but would be useable on jacks or arming doublets. In my experience in making replicas the stitching on a padded jack or doublet does not want to be too tight as the fabric becomes inflexible. So a loose back stitch or zig zag is one of the best for the job.



Spacing the stitches running ,back, or cross stitch, so that they are equidistant gives the impression of chequer board quilting.

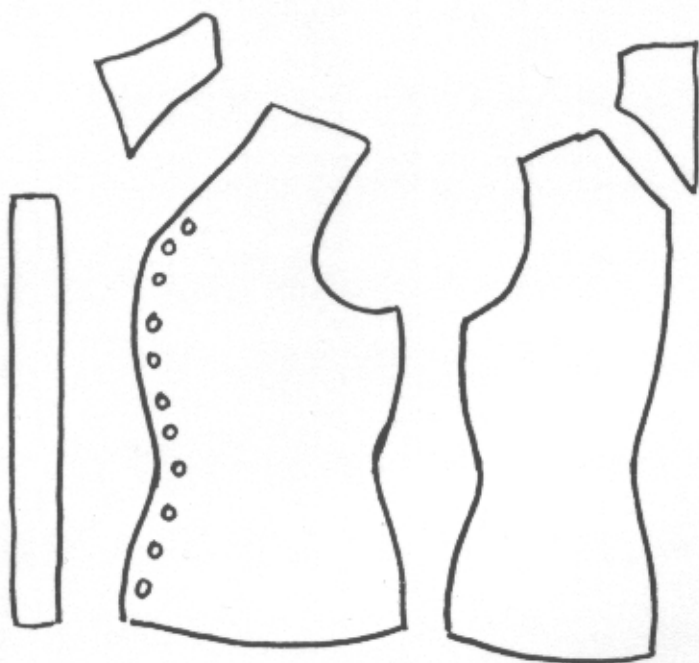


In the 15th cent the Burgundian army was reputed to sometimes wear decorative brigandines with no plates inside but rivitted through wadding instead, like a variation on the jack.

Jack over the
mail shirt.



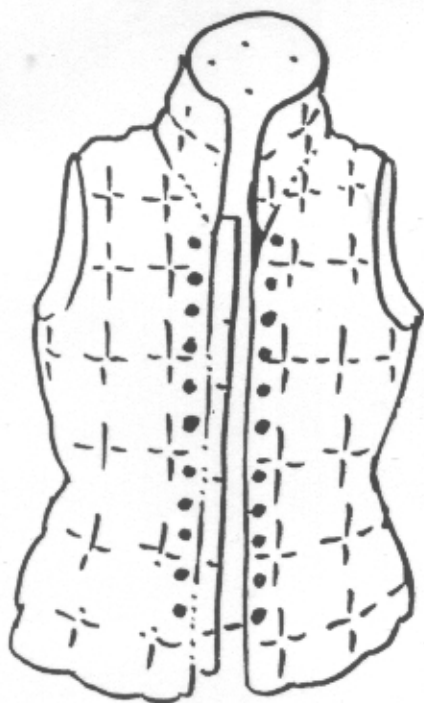
polyns
strapped
to the
leg and
laced to
arming hose.



With a jack the emphasis is on resistance to penetration rather than shock absorption and as a rule they were made of multiple layers of linen (preferably old and washed) or new cotton. The reference to the use of cotton cloth in the 15th cent. is definite and clear. Wadded jacks fabric stuffed or padded with teased out wool or

cotton are referred to in the medieval period. In the construction

of a jack up to 30 layers of cloth are mentioned, and even a top layer of deerhide. 16th cent descriptions of Bordrers jacks being covered with white leather leads me to believe that buckskin is the material inferred.

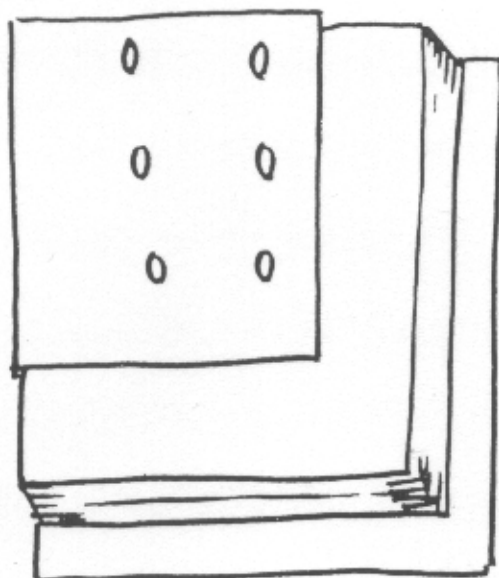


Other writings mention steeping jacks in vinegar, or red wine and salt to improve their resistance and the Aztecs who also used padded or wadded cotton armour are described as soaking theirs in salt water.

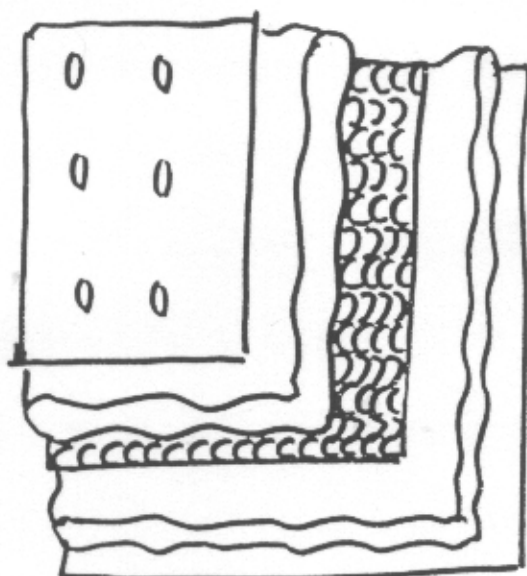
This duplication completely independantly of the same process leads me to the conclusion

that it was effective in improving the performance of the garment.

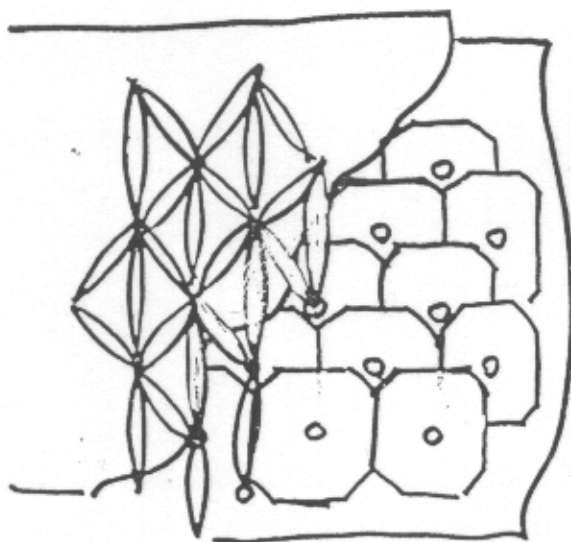
Jacks could be laced or buttnd shut but whatever the opening would be reenforced or backed up with a strip to guard against a weak point here.



Wadding and multi layering were the oldest ways of making jacks.



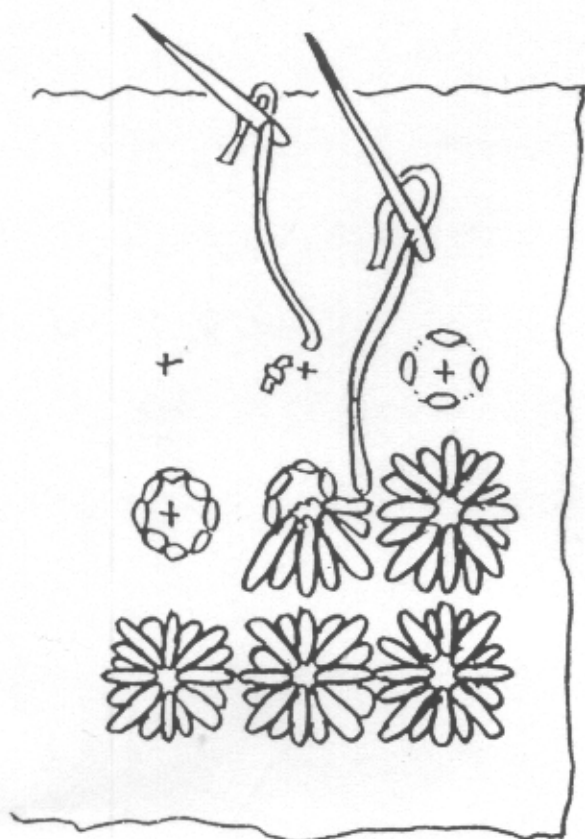
Putting a layer of mail in the core of the jack was an oft used way of beefing up its performance.



Another was to insert and stitch or lace in place a layer of plates, metal, often from cut up obsolete armours, or horn a rust proof and very tough alternative.

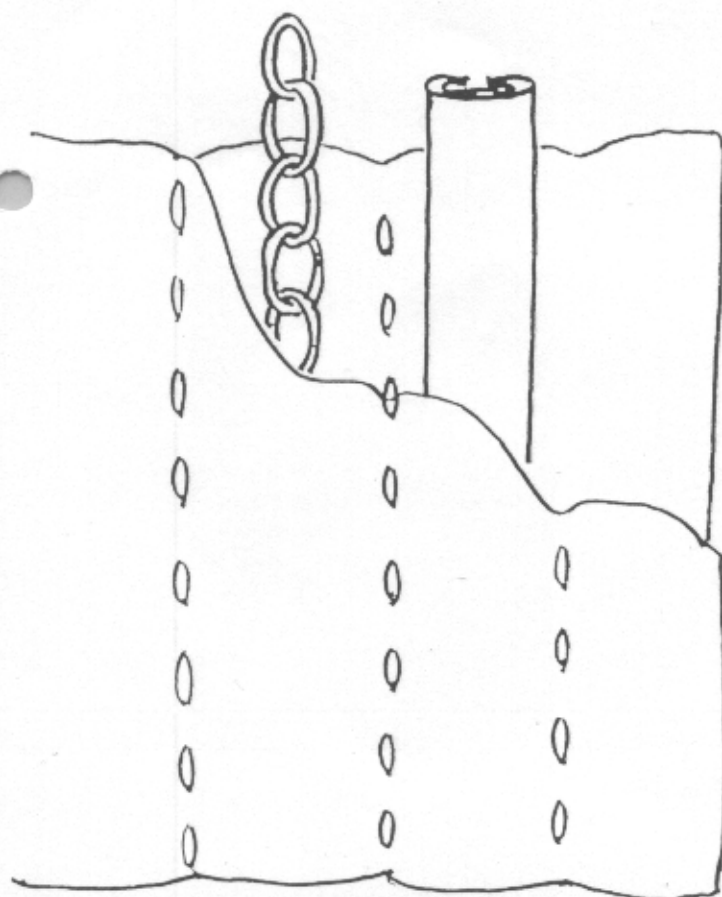
In a modern replica, rawhide,

the stuff dog chews are made of might be viable.



Another fabric defence was the coat of eyelets, a linen defence toughened by sewing it all over with stitched eyelets.

The diagram at left shows the sequence of construction, marking the eyelet, sewing round it with double running stitch, and oversewing.



Quilted sleeves could be lined with lengths of chain or folds of fustian to make them swordproof.

A doublet could be lined in the body with a coat of eyelets, and the sleeves threaded with chains to produce a discrete but effective body armour.