

by appearance, entitled to the name. It may be well, therefore, to mention that "none are genuine" without the following distinguishing markings. The colour is a peculiar brown, or mouse-colour, varying somewhat in shade, but unmistakable when once seen. The legs should be white below the knees and houghs, and there should be a white line on each side of the face, running from the ear to the nose, both of which features should be fringed with white. These markings, with a white patch on either side of the tail, should be even, and clearly defined. The breed comes from the canton St. Gallen, in North Switzerland, and is renowned in all parts for its powers of milk-production.

The "Appenzell" goat is another of the sixteen pure breeds of Switzerland, and is native to the canton Appenzell; it seems to differ from the Toggenburg in little else than in colour, being pure white, without markings of any sort. Both of these breeds are without horns, and having, as I have said, been bred with care for the production of milk, have become thoroughly domesticated, and may be depended upon to make pets, that will combine the qualities of intelligence, gentleness, and affection, with the greatest possible usefulness in the production of rich and abundant milk.

Having now supposed that the kid has been procured that is to be the future pet goat, I must proceed to describe how it is to be reared to maturity. The younger it is the easier will be the operation of accustoming it to its artificial diet, as when once it has learned to take its nourishment from its mother, it will only suck from the feeding-bottle when considerably pressed by hunger.

The bottle used for the purpose should be one of the old-fashioned feeding-bottles, without tubes, and must be kept scrupulously clean by being well-rinsed out with tea-leaves at least once each day. The food must be given four times a day, and each time the kid should leave its meal with an appetite. For the first fortnight or three weeks it should be given warm, but afterwards it may be cold, and should be continued for six weeks at least, or, better still, for eight or nine.

The amount used for one kid should be about a quart per diem, and, as the bottle will hold about half a pint, the four meals per diem would just amount to the right quantity.

Kids are precocious little animals, and will probably commence to take a little solid food at a week or ten days of age, and as they

begin to grow they will eat more, so that the ration of milk is supplemented gradually more and more, as the kid requires more nourishment.

Grass and hedge-row weeds should form the first essay of the young teeth, and afterwards meal and hay and, finally, oats and bran, which stage of development will probably be reached at about the age of three weeks. From this time progress should be rapid, especially with plenty of fresh air, exercise, and gambols. The kid will follow its mistress anywhere, and all day long if desired, affording endless amusement and pleasure, by its quaint inquisitive ways and merry gambols, expressing in every movement the "joy of life."

No vegetable food that is sweet and clean will now come amiss, and few herbs will prove unwholesome, but beware of the rhododendron. This is a shrub that is to be found on most lawns, and which is relished by goats to their sorrow. Indulgence in this food, or indeed a very few leaves, will cause great suffering, and if not relieved by sickness will probably result in death.

Food and how it should be given, will, however, form the subject of the next paper.

(To be continued.)

## WOMANLY WEAPONS.

### PART I. PINS.



GENTLE reader! I invite you not to read of bows or javelins, or such-like weapons, wielded only by a race of Amazons, weapons which could leave in their track only bloodshed, sorrow and hate, nor will you be told any

secret of those "woman's weapons, water-drops," which Shakespeare would attribute to our sex. I write only of those truly peaceful weapons which every woman is proud to wield with skill; whose every trace reveals only thrift, deftness, and industry, leaving behind them only pleasure and delight, I mean those little homely weapons, or tools, if you prefer that name, the womanly weapons of our work-table.

They have all a history to tell us; varying vicissitudes, ups and downs, have more or less marked the course of all of them ere they could be had in their present plenty and perfection.

Let us begin with the simplest of all, our pins. Necessary alike for our toilet or our needlework, they are almost the most important of our "weapons," and have been in use from the remotest ages of the world. Pins of brass are spoken of in the book of Exodus; in later ages they were of bronze, bone, wood, or ivory, or of bronze in a handle of ivory. None of these were so slender nor of so perfect a make as the pins to which we are accustomed, as we know from the very numerous specimens, especially of bronze pins, which have been found in ancient British barrows, buried with their dead amongst other treasures by our forefathers. Time of course has roughened and injured them to a certain extent, but many are so well preserved and have been discovered in such positions as to show that they had been used for the fastening the clothing of those in whose last resting-places they were found.

There is no certainty of the date at which

pins were first manufactured in England, but it is on record that in 1464 complaints had arisen that certain clock-workers had compelled their labourers to take payment for their labour "in pins, girdles, and other unprofitable wares instead of money;" and in the early part of the reign of Richard III., when several statutes relating to trade and manufactures were passed, a large number of artificers joined in a complaint that the articles the fabrication of which had formerly furnished them with the means of gaining a livelihood, were now brought from "ports beyond the sea." Amongst these artificers we find, girdlers, point makers, pinners, wire-mongers and many others. In consequence of this complaint a statute was passed which prohibited the importation of the following: "Girdles, or any harness wrought for girdles, points, laces, leather purses, pouches, pins, gloves, knives, hangers, tailors' shears, scissors and irons," with at least forty other articles which are irrelevant to our present subject. At this date pins were either of boxwood, bone, or silver. As time went on many improvements were made in the manufacture of pins, till by the middle of the 16th century, when they were made of metal, usually of brass, they came to be of so much importance that statutes were enacted with regard to their manufacture. "Up to this period female dress was fastened with ribbons, laces, clasps, hooks and eyes and skewers of brass, silver, or gold; the latter were in fact pins without heads." Some of these enactments in the reign of Henry VIII. are a little curious. In one, "to avoid the slight and false making of pins," it is enacted, "that only such are to be sold as are double-headed, and have the heads fast soldered to the shank of the pin, well smethed, the shank well shaven, the point well and round filed, canted and sharpened." Pins were not to be sold at more than 6s. 8d. per thousand, which had been the current price for two years (we can buy them now for about one-twentieth of this price). This regulation of the price had however to be withdrawn very soon, on account of "a scarcity of pins in this realm." Ladies in those days regarded pins as very acceptable New Year's gifts, though they were sometimes willing to accept money in their stead; hence the origin of the term "pin-

money." These pins were no doubt of a somewhat ornamental kind, and probably of more or less intrinsic value, and would be such as we find described in an account which has come down to us of the dress of the wife of one John Whitcombe, a clothier of fame in London in 1543. It runs thus, "a fair train gown stuck full of silver pins, having a white cap on her head, with cuts of curious needlework under the same, and an apron before her as white as driven snow."

It appears that the manufacture of pins for the toilet, of a kind somewhat approaching those we have now in common use, was introduced to our country from France, from which country they were brought in 1540 for Katharine Howard. Three years after this they were made in England, as we have already seen, though John Hall writing in 1685 would have us believe that the art was not practised until twenty years later, since he asserts that "the way of making pinnes was found out by the English about the 5th year of Queen Elizabeth, which before were brought by strangers to the value of 60,000 pound a year."

However this may be, we can but suppose that English-made pins were both inferior and dear until the art of wire-drawing had been learnt from foreigners, a circumstance which we have good authority for stating, took place in 1565, up to which time English wire was all hand-made, and of bad quality.

During the 17th century a Dutchman established a wire-mill at Sheen, in Surrey, and from that time, at any rate, English pins have carried the palm.

Ere the first half of the 18th century had sped, the manufacture had been established on a large scale in the West of England and in London. At Gloucester and later at Birmingham large works were erected, and it is by the courtesy of the well-known firm of Kirby, Beard & Co., that I am able to give a somewhat minute account of the manufacture both of pins and needles, as it is now practised in their manufactories in various places.

The manufacture of a pin, when entirely made by hand, was a tedious process, or rather series of processes, for it had to pass

through no less than twelve or fourteen separate stages before it was completed; the wonderful machinery now in use has marvelously simplified matters.

First of all the wire must be prepared. It is placed in a coil, on a revolving block, and drawn through holes pierced in a steel plate, until it is of the size required for the particular pin which is to be made. It is then taken to the pin-making room, where are rows of machines, all moving by steam power, and producing a constant stream of pins, at the rate of 180 to 220 per minute, which are removed from the receptacles into which they fall by the workman and his attendants who look after the proper working of the machine, and who can, by moving a lever, instantly stop any one or all of the machines. Let us stand in front of one of these machines and we see a coil of brass wire on a revolving drum; the end of the wire passes through a hole, and then between iron pegs, which straighten the wire, and keep it in its place as it is drawn into the machine. In the machine we see a pair of sliding pincers take hold of the wire, carry it forward a short distance, and put the end through a hole in a small iron plate. Watch intently, and we see a pretty little hammer strike the end as soon as it is visible on the other side of the iron plate. By successive blows of this hammer the head is made. This done, down falls a sharp blade or shears, and cuts the wire to the length required; the machine is adjustable so as to cut pins of larger or smaller sizes, as may be desired. This process of drawing in, heading, and cutting off, goes on continuously in the machine, and the pins are thus carried on to the pointing part of the machine. When headed and cut the pointless pin falls into a slanting groove, just wide enough for the body, but too narrow for the head to pass through. Thus we find a row of pins nearly the whole width of the machine, hanging by their heads. Beneath is a revolving cylindrical

file. The surface of this cylinder represents a series of graduated files, and as the pins are worked backwards and forwards they are pointed and fall into a receptacle below, perfect in form, but not fit for use—they are yellow—the colour of brass wire, and they are greasy, not pleasant to handle. They are therefore put into barrels, which are turned round and round, and by this means are thoroughly scoured and cleaned, and now "clean as a new pin" are ready to be "silvered." For this purpose they are spread as evenly and flat as possible in kettles heated by steam; a powder of fine tin is dusted over them, a certain portion of acid added, and after boiling in this for four hours they are taken out of the kettles, possessed of the bright silvery appearance which belongs to all good pins. They are then dried by being thrown into sawdust, and polished by being revolved in barrels moved by machinery at the necessary speed. From these barrels they are put into a flat tray, and the workman, by a peculiar tossing motion, which requires much skill and practice, separates and removes all dust from the pins, which we now see in a clean, bright, shining heap, ready for the market. Mourning pins are blacked and japanned instead of being silvered.

Another very ingeniously constructed machine "sticks" the pins, *i.e.*, places them ready in rows on papers. The paper placed on a curved piece of metal of about its own size, is crimped and placed in position to receive the pins which are passed out of a receptacle at the top of the machine by a girl, who with a brush dexterously sweeps them into grooves placed in an inclined plane leading down to the paper. They now pass down into the machine in long lines, vertically arranged; by means of a lever the paper is brought under the points of a row of pins, which by a very beautiful bit of machinery are pressed through the crimped edges of the paper. Row by row the whole sheet is thus filled.

We have seen how John Hall wrote the word "pinne"; some old writers spelt it *pyne*; our present spelling is probably the modern form of the old English "preon" or "prin," the "r" having dropped out as is the case in some other words. The Scotch word "prin" "prein" or "preen" is evidently the same, signifying a pin made of wire; a "princod" being a Scotch word for a pin-cushion. Shakespeare has "a cod-piece to stick pins on."

There were uses for pins in festivities in feudal times, in which women were no sharers, and the part pins were made to serve would certainly not place them amongst "womanly weapons." We are told that the tankards holding two quarts used at some of these feasts, were divided into eight parts, each part being marked off by a silver pin. By the rules of the table, a drinker might stop his quaffing only at a pin; if he went a hair's breadth beyond, he must drink to the next pin; failing to stop at the exact point, the only solution of the difficulty was often found to be the draining to its dregs of the whole tankard, and much noisy mirth was excited by the vain efforts and repeated failures which were certain to occur during the feast. To this Longfellow refers in the "Golden Legend"—

"No songs, no laugh, no jovial din  
Of drinking wassail to the pin."

Before taking leave of this little "weapon" it may be mentioned that the manufacture which now gives employment to thousands was once so important a trade as to be incorporated into a Livery Company in the City of London, and although the Pinners' Company has ceased to exist, the manufacture of pins in England is far more extensive than ever it was, and it would appear that such vast improvements have been made, that we may almost look upon our present pins as perfect "womanly weapons."

MARY B. MORRIS.

## VARIETIES.

### CATS LOOKED UP TO.

Cats in ancient Egypt, as most of us no doubt have read, were so prized that they took a high place among the sacred animals. When a cat died a natural death people mourned in a regularly appointed manner, and the remains were embalmed with costly drugs and spices.

It has been supposed that puss owed its consecration and divine honours among the Egyptians to a peculiar physical attribute, the contractibility and dilatibility of the pupil of the eye—exhibiting a mysterious illustration of the moon's changes.

**MUSIC OF THE OLDEN TIME.**—The earliest piece of music for several voices that has been found in any country is an English "six men's song," contained in a manuscript which the best judges assign to the period prior to 1240. It is a canon for four voices, with independent parts for two more, which stand as a foot, or burden, or ground-base to support all the others. The original words are a description of summer.

### TOO MUCH SPACE.

The teacher asked "And what is space?"  
The trembling student said:  
"I cannot think at present,  
But I have it in my head."

**SET AN EXAMPLE.**—The important thing, if you would lead others, is to go that way yourself.

### SHE REFUSED TO BE MARRIED.

There is an amusing story told of a bride in the north of England. During the marriage service just as she was about to say the word "obey," the bridegroom, who was an ill-natured fellow, leant over and whispered—  
"I'll make thee."

She naturally resented this, and turning to the clergyman who was performing the ceremony asked, "Are we married yet?"

"No," he replied, "you are not, as you have not said all the words appointed, and the marriage register has not been signed."

"Then," said the young woman, "I shall not have him"—and she left the church with her friends. And most people will say she was right in refusing to become the wife of so boorish a man.

**A LASTING IMPRESSION.**—The famous American historian, Prescott, was influenced for life by the lady whose school he attended in early childhood. The secret of her success is revealed in the little fact that she never spoke of herself to her pupils as "your school-mistress," but always as your "school-mother."

**WHAT TEMPERANCE DOES.**—Temperance puts coals on the fire, meal and flour in the barrel, money in the purse, credit in the country, contentment in the house, clothes on the children, vigour in the body, intelligence in the brain, and spirit in the whole constitution.—*Benjamin Franklin.*

### WHAT THE FLOWERS SAY.

An American author has put the message of the flowers in this way—

The red rose says "Be sweet";  
And the lily bids "Be pure";  
The hardy brave chrysanthemum  
"Be patient and endure."

The violet whispers "Give,  
Nor grudge nor count the cost";  
The woodbine "Keep on blossoming  
In spite of chill and frost."

And so each gracious flower  
Has each a several word,  
Which, read together, maketh  
The message of the Lord.

**ALLITERATIVE COUNSEL.**—Patient plodding, persistently prosecuted, produces permanent prosperity.

**OURSELVES AND OTHERS.**—"I have often wondered," says a shrewd writer, "how every man loves himself more than all the rest of men, yet sets less value on his own opinion of himself than on the opinion of others."

**A SIGN OF WISDOM.**—The wisest girl in the world is the girl who avoids doing the greatest number of useless things.

ANSWER TO ENIGMA I. (p. 7).  
The Shadow.

Repeat to the end of the row. Reverse work and repeat from \*

This pattern can be worked in Berlin, or Shetland, or fingering wool. The latter shows the pattern much the best (see pattern), as being stiffer the wool sticks out in squares, whereas in Berlin or Shetland it lies quite flat.

It can be worked all in one colour (dove looks very pretty), or in red and grey each alternate row. This pattern is very thick and warm, and is equally suitable for shawls,

*couvrepieds*, comforters, baby blankets, etc. It can be edged with fringe, or a pattern like No. 6.

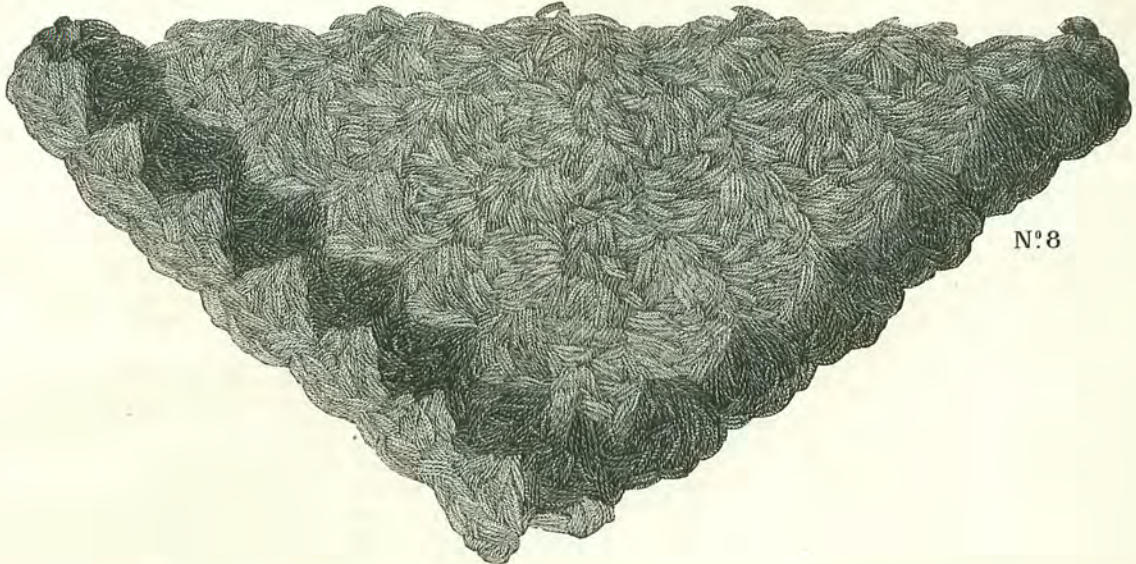
No. 8 is the same stitch as No. 7 worked up and down, beginning at the centre thus—1 chain, 3 chain, and make a long stitch into the first chain stitch.

Reverse work, 3 chain,\* 2 long stitches into the top of the long stitch in the previous row. Make a "short peculiar stitch" into the next chain: 2 long into same chain-stitch.

Repeat four times more.

Reverse work, and repeat from 3 chain\*; only when you come to the 3 clump of stitches which forms the peak of the shawl put one "short peculiar stitch" and 2 long stitches into its centre stitch, and one "short peculiar stitch" and 2 long stitches into the "peculiar stitch" next to it. This exactly makes the enlargement needed for the peak at the back of the shawl.

After making the first and second rows this is perfectly easy.



N° 8

## WOMANLY WEAPONS.

## PART II.

## NEEDLES.

PERHAPS the most important of our "weapons" is after all the needle; its name is given to comprehend every kind of sewing, be it in the loveliest embroidery our "curious needle paints the flowers," in the fashioning of the homely garment, or even in the thrifty patch or cunning darn, that "the busy needle plies its task," all are needlework.

If we go back to very remote ages, we cannot affirm with any certainty what kind of needles were used by women in their work, but Pliny distinctly states that the needle was used by the Phrygians for embroidering robes, and learned authorities state positively that the Jews, who derived their skill in such work from the Egyptians, used the needle for the rich embroidery in gold and silver of the splendidly ornamented hangings of their tabernacle, which are described in the book of Exodus. We have also in the book of Psalms distinct reference to this little implement; there David says, "They shall be brought in raiment of needlework." The Greeks embroidered figures upon cloth with the needle, and in such high estimation did they hold the art, that they attributed its invention to sacred origin, saying that Minerva had taught it to mortals. We have but slight information respecting needlework in the middle ages; but sufficient is to be found to show that women were engaged in working tapestry with the needle from the earliest epochs of the French monarchy. Gregory of Tours at the close of the 6th century, describing the rejoicings of the people, which followed the profession of Christianity by Clovis and his people, speaks of

the churches and streets being adorned with embroidered hangings; and also in the consecration of the Church of St. Denis, he says there were tapestries embroidered with gold and pearls.

It was not until three centuries later that the art of making tapestry by the loom was introduced, and even then the needle was quite as much used in embroidering cloths for churches. In our own land our Anglo-Saxon women were celebrated for the delicacy and beauty of their needlework. Ingulphus mentions some hangings ornamented with golden birds in needlework and a veil or curtain on which was represented in embroidery the destruction of Troy. We know but little of how needles were made in those early days, or what they were like; much rougher, coarser, and ruder than the elegant and highly finished ones of our own days; they were no doubt in primitive times merely thorns of shrubs, plants and trees, then perhaps made of bone and later of bronze, and of brass. There is a story told of the early part of the 15th century, which shows that needles were then in use for the making of garments; it relates that, when the worst suspicions of King Henry IV. as to the conduct of his son, Prince Hal, had been infused into the king's mind, the prince regained his father's favour by appearing before him and offering the king his dagger, that he might if he pleased take his life on the spot; on this occasion, it seems, the prince was apparelled in a gown of blue satin, full of small eyelet holes, at every hole the needle hanging by a silken thread with which it was sewed. In an old book I have found a description of the furniture of a lady's workbox in the 15th century. The writer says: "Ladies

had also elegant etuis, etc.; amongst their articles of toilette was always a workbox, well furnished, and as the writing-case was ordinarily united with it, it was under this name that the whole of these utensils were comprised." In the inventory of Gabrielle d'Estrées the workbox is thus designated: "Une escriptoire couverte de maroquin du Levant, dorée et argentée ferrée d'argent, dans laquelle se sont trouvez une bourse, quatre eschevaux de fil blanc, trois petitz pelotons de mesmes fil, douze mousles a faire rescul, neuf esguilles, le tout de cuyvre; six autres mousles et sept esguilles de fer-blanc, et trois eschevaux de soye blanche."

Shakespeare in several of his plays refers to the needle, or neeld as he spells it, as a womanly resource in many a scene of life's drama; thus in *Midsummer Night's Dream*, Helena to Hermia says:—

"We, Hermia, like two artificial gods,  
Have with our needls created, both one  
flower,  
Both on one sample, sitting on one cushion."

And of another heroine he says:—

"Or when she would with sharp neeld wound,  
The cambric, which she made more sound  
By hurting it."

It was certainly as late as the reign of Queen Mary that the manufacture of needles, similar to those at present in use, was introduced into England.

John Hall, in his *History of Inventors and Institutors of Famous Arts*, says, "Fine Spanish needles were first made in England in the reign of Queen Mary, by a negro in Cheapside, who refused to communicate his

art, but in the 8th year of Queen Elizabeth's reign Elias Corous (or Krause), a German, made it known."

Another authority tells us they were first made in England by a native of India in 1545, but the art was lost at his death. It was, however, recovered by Christopher Greening in 1560, who was settled with his three children, Elizabeth, John, and Thomas, by Mr. Damar, ancestor of the present Lord Milton, at Long Crendon in Bucks, where the manufacture has since been carried on to the present day.

The needle manufacture was also, shortly after, established in London, and the reputation which the Whitechapel needles long enjoyed points to the particular locality. Since that time the special home of the needle manufacture seems to be Redditch in Worcestershire, though, I believe, there are factories both in Gloucestershire and in Birmingham.

The wire for making needles is not made in the needle factories, but is brought to them ready prepared, mostly from Sheffield and its neighbourhood. And here it may amuse if I quote John Evelyn's quaint account of the process of wire-drawing at some brass-mills "set up in the parish of Wootton in Surrey," in his time, "for the casting, hammering into plates, cutting and drawing into wyre: 1st, they drew the wyre by men sitting harnessed in certain slings, taking hold of the brass thongs fitted to the holes, with pincers fastened to a girdle which went about them; and then, with stretching forth their feet against a stump, they shot their bodies from it, closing with the plate again; but afterwards this was quite left off, and the effect performed by an Ingenio brought out of Sweden; which I suppose they still continue."

Unless special attention has been given to such subjects one can form but little idea of the detail of the processes necessary before the beautifully finished needle of the present day finds its place in a lady's needle-case.

The manufacture differs considerably, and in many particulars from pin-making, for, whereas the pin is now made and completed in one machine, the needle passes through a great many processes in which the hand performs a prominent part. "The hand of the cunning workman" is necessary to a very great degree in connection with the machinery. First we have to remember that needles are made from steel wire, the majority of pins are of brass, though some very delightful steel pins are made, which will be found excellent for use in very dainty needle-work.

The steel wire then is delivered in coils at the needle-mill; these are cut up by a workman with a huge pair of shears into pieces of the right length for two needles. These pieces of wire as they are cut from the coil are, however, slightly crooked, and, by a process which requires both care and skill, they must be straightened. This is done by placing the wires in two iron rings, heating them in an oven and rubbing and rolling them with a curved iron bar until they are perfectly straight. An experienced workman can tell when they are so by the touch and tone of the wires.

Next, the wires have to be pointed at both ends; this is done by a machine which receives the needles between, as it were, bands of india-rubber, and rotates them against a mill driven at high speed till they are pointed. They are now made over to the stamper, whose work is with the other end of the needle, to fashion the head and pierce the eye. This is done by means of two dies, the lower one fixed in a stone or wooden block, the upper one works up and down moved by the foot of the workman in a stirrup. He takes a certain number of needles in his left hand, and, with

his right, lays them one by one on the lower die, dropping the upper one down upon it. This process he repeats at the rate of six thousand an hour, stamping two needles each time.

This stamping shapes the head and the tiny groove beneath the eye, but does not beat the eye quite through, a thin film of steel is left, which has to be punched out by the eye. This part of the work is done by a boy, or often by a woman, who dexterously places the needles the right way up into the bed of the machine (which exactly corresponds with the lower die before used, only it has holes to allow the two little films to pass through), and pulls down by a handle two little studs which pass through the eyes. These studs or points stick rather firmly in the eyes, but an ingenious little three-fingered hand snatches them off in time for the operation to be repeated.

It is hardly necessary to say how delicately these machines must be made and adjusted, and how great must be the skill necessary to keep them in repair and order, so as to secure the beautiful finish of the needles now produced.

Now the filer begins his work: several girls assist him by threading the needles on fine wires, when the burr of metal, which was spread out round the head of both needles by the blow of the die or stamp, has to be filed away. Thus far the needles have been in pairs, now they are gently parted, and the needle, though only through about half the process of manufacture, is really made. But it must be hardened, tempered, and scoured—hardened as all steel articles are, by being heated to a certain degree then suddenly plunged into a cold liquid: needles being generally dropped into oil.

Simple as this process appears, it requires skill, care, and judgment on the part of the "hardener." After this "tempering," heating again to a certain degree to give toughness to the needle is done by the same workman, and now the needle is ready to endure the rough process of scouring, the dirtiest of all the processes which the needle has to pass through.

The hardener's fire has covered the needles with a dark coat which must be scrubbed away. To do this, hempen cloth, called hurden, is cut into strips and laid in a wooden trough, the needles placed lengthwise inside it, and oil and powdered quartz with some soft soap poured in upon them. The edges of the cloth are now closed together, some larger pieces rolled round outside, the whole wound round and round with string from end to end, the ends closed up, and these rolls are laid on a sort of table with boarded sides; a heavy block of wood worked by machinery works on the top of all, turning the rolls over and pressing them together so that each needle helps to polish its fellow.

This process goes on for several days; the needles being opened and inspected from time to time, and finer grit being put in until the last time, when what is called polishing putty is put in to finish the process. The needles are then taken out, boiled clean, and thoroughly dried by scouring in warm sawdust. After careful sorting, all defective ones being removed, the needles are passed through another process to ensure perfect smoothness of the eyes; the chief method in use is that of "drilling." The heads of the needles being passed through a gas flame are slightly softened, and a slender tool passed through the eye removes any roughness which might be left, and which would cause the needle to cut or fray the thread. Now the needles have to be "finished" by being polished. A workman sitting before a revolving cylinder covered with buff leather, takes the needles in his hands and holds them on the wheel until

they are perfectly polished; another workman then holds the points delicately against a stone mill, grinding the slender points to the required angle, after which they are rubbed between two soft pieces of leather to remove any damp or stains and then wrapped up to be packed in hot store-rooms. They are then put into the neat little packets we are so familiar with, ready for the markets.

Thus then are made these indispensable weapons of our woman's work, and surely enough has been said to show the amount of labour and care needed for their perfect production, and to ensure for them a due appreciation by every lover of her needle.

Our English needles are deservedly esteemed the best in the world, and find their way to the very remotest regions. We hear of their being sometimes put to strange uses; as where a recent traveller relates that the Tartar women brought their babies to her, with their caps stuck full of English needles, which they reckoned a mighty charm against all kinds of sickness! The little Kashmir children too, in their far-away mountain homes, now use our needles in embroidering the beautiful Kashmir rugs; they hold their needle exactly the contrary way to what we do, drawing the thread through away from them instead of towards them.

The account I have given of needle-making speaks only of sewing-needles, but there are many other kinds of needles made in a similar manner, each one varying with the special use for which it is designed; thus, sail-makers' and packers' needles form a special branch of manufacture, and there are also sack-makers' needles, technically called "loopers;" besides upholsterers' needles, carpet, druggist and bookbinders' needles, and some others; then, surgeons' needles are very important; and for our own work-tables, besides the many varieties and sizes of ordinary sewing needles, there are special makes for darning, embroidery, crewel, wool and tambour work, etc.; also knitting-pins, crochet hooks, and netting needles, each carefully prepared for its own part in woman's manifold work. Recently an ingenious invention has produced a needle made expressly for the blind and the defective, or short-sighted, for whom it provides a great boon, viz.: a needle which they can thread themselves, by merely holding the thread stretched between the finger and thumb, and passing the side of the eye of the needle along it, until an opening in this is found, into which the thread easily slips.

Sewing machine needles pass through many of the same processes as sewing needles, but machinery is used to a much greater extent in their manufacture in order to ensure the accuracy necessary.

Hundreds of women and girls find employment in our needle factories, some as we have seen in the actual manufacture, and many more in folding and making up the neat little envelopes, papers and boxes, in which the needles are so daintily wrapped.

The needle-making trade has long been invested with considerable importance, and though perhaps less prominent than some others, there still exists a Needle-maker's Company amongst the guilds of the City of London. From it, I believe, is derived the name of Threadneedle Street, or Threeneedle Street, which has its origin from three needles, the sign of the shield of the Needlemakers' Company. This Company formerly had its own hall, now however no longer in existence.

For the details of the manufacture of needles as at present practised, I am indebted to the kind courtesy of Messrs. Kirby, Beard, & Co., who have obligingly given me every information and rendered such explanations as were necessary to the uninitiated in these matters.

MARY B. MORRIS.

## WOMANLY WEAPONS.

## PART III.

## THIMBLES.

"Though thy little finger be armed in a Thimble."—*Shakespeare*.

THERE are weapons offensive and weapons defensive, both alike necessary to the full equipment of the wielder and wearer thereof. So also with the peaceful weapons of which I write; and looking at pins and needles as weapons of offence, we come to the thimble as the truly defensive womanly weapon.

Of the origin of the thimble we know but very little; it dates undoubtedly from very ancient times. Varro writes of the *digitale* or *digitabulum*, which would appear to have been certainly some kind of strong shield or protector for the finger; some suppose it may have been a glove shielding the whole hand, as it was used in gathering olives. The thimble, however, as used by women to protect the finger in their needlework, has been found in the remains of the buried city of Herculaneum, and does not differ so much from the modern ones, but that it is easy of recognition. Thimbles appear to have been originally worn on the thumb, and in mediæval English the word was written "Thymbil," and in some old works we find it "Thumb-boll."

We have no distinct knowledge of how or where thimbles were made until after the twelfth century. During that century a noble German lady, St. Hildegarde, celebrated alike for her piety and her learning, introduced into one of her works a list of 900 words "in an unknown tongue;" these she translated for the benefit of her less learned readers, and among these translations we find "Fingerhuth," from which we may conclude that the "Fingerhut," as modern German has it, was an article commonly known. Perhaps one of the earliest specimens after those of such ancient date as the Herculaneum remains, is a thimble of bronze, preserved in the museum at Darmstadt, which was dug up at the Castle of Tannenbergl in 1848. As this castle was destroyed in the year 1399 and was never rebuilt, the thimble must have been made prior to that date. I have seen some in the museum at the Cathedral at Basle which appear to be very old, but can give no certain information as to their date.

The first record we have of the manufacture of thimbles is found in the history of Nuremberg, a city which has been for many centuries the seat of every kind of industry, especially so far as regards the working in metals. In this ancient city there were very strict laws by which each trade was bound, and numerous guilds were formed, each having stringent rules imposed upon it by the higher ranks by whom the laws were enforced. Thimble-makers are mentioned in the city records as early as 1462, but we are distinctly told that they had then no separate guild, but were included in the brass-workers' guild. Early in the following century they became more important, and are spoken of separately, and in 1537 they received a constitution and were formed into a special guild. Now, and for some time previously, thimbles had found their way into shops, and were also offered for sale at all the fairs, which were then the common trading-places throughout Germany. Great jealousies, however, seem to have been prevalent amongst the different guilds, and after the Nuremberg thimble-makers had obtained their constitution and privileges, they found themselves greatly thwarted by the brass-workers, who contended that they only had the right of founding or melting brass, and the poor thimble-makers

were forbidden under threats of pains and penalties to found thimbles. They found means however of manufacturing them, by what method we are not exactly informed, but it is probable that the restriction placed upon them led to the invention of some new device in metal working, for we find that a little later the aristocracy who interfered in the smallest details, and domineered over the artificers to an intolerable extent, forbade Jorg Eudtner, a member of the guild, under the severest penalties, to use an innovation, unknown to others in the trade, viz., a lathe, which he had constructed. This they did on the plea of securing that no work should go out of the City of Nuremberg but what was well done. At any rate, thimbles came about this time to be made of very varying sizes, as well as of many shapes and fanciful devices. We find descriptions in an old German work, of some that were "flat like buttons," others "three-cornered," which surely must have been a very inconvenient shape for working quickly, and not very comfortable to the fingers which touched upon them. Others again were made of ivory, cut with rings closely grooved on the outside, and these thimbles were used for spinning the gold and silver thread, and for twisting these with woollen threads, to form the beautiful tissue so much used in the rich embroidery the ladies of those days were wont to elaborate. Besides, many were made which were rich specimens of costly work, either of embossing, engraving, or inlaying. Some of these works of art are still to be seen in the museum at Nuremberg; one which is narrow and very pointed, and adorned with ornaments of stars, eagles, lilies etc., bears an inscription and the date 1595. The inscription in old German ran thus: *Wen Got wil, so ist mein zil*, which may be rendered, "The will of God be my aim." Others are set with brilliants and precious stones of every kind. The most remarkable thimble in this museum dates from the sixteenth century, and is perhaps the largest in existence, fit for the finger of a veritable giant. It is of silver gilt, and is in the form of a goblet, and by the inscription encircling it we find it was made for the tailors of Nuremberg. A figure upon the top represents a genius holding in his right hand a pair of scissors, in his left a huge needle. This gift the tailors of Nuremberg appreciated not a little and used it at their festivities, and henceforth it was no satire upon the tailors to quote the old proverb, that a tailor had "emptied a thimble, and in so doing was made drunk;" perhaps a thimble of such dimensions may be used by our Scotch highlanders when they modestly take but "a thimblefu' o' whuskey!" Gold thimbles appear to have been nowise uncommon in the sixteenth century, and of these and many of great beauty and workmanship, a celebrated copper-plate engraver of Frankfort, one Johann Theodor de Bry, has furnished engravings; they are highly adorned with mythological scenes, with a cupid or a genius, and with such inscriptions as *Force d'Amour*, *La puissance d'Amour*, and other similar mottoes. These and many other highly ornamented specimens are preserved as curiosities, and were doubtless intended more as jewel treasures than for use. At the end of the seventeenth century, one Christoph Weigel wrote accurate accounts of the method of manufacture, and affirms that thimbles were found in few places, except Nuremberg, Cologne and Holland. This statement we take to mean that manufacturers of thimbles existed only at these places. The same writer describes thimbles, which he calls "Sternhüte," and which were only intended for

ornament; they were often fitted with little stoppers and were filled with perfume; besides these, he tells us, there were lined or double thimbles, the inner portion smooth and gilded, the outer part "of silver pricked all over."

Towards the latter part of the eighteenth century many other places had established thimble-factories, and by the introduction of various improvements in the machinery they speedily excelled the Nurembergers.

It is perhaps impossible to fix the date at which thimbles first found their way to England; we find mention made of them by a learned ecclesiastic (John Skelton) who wrote during the latter end of the fifteenth century. In some verses of his the following lines occur:—

"And some went so narrow,  
They laid to pledge their wharrow, (distaff)  
Their ribskin and their spindell,  
Their redel and their thimble."

The manufacture of thimbles appears to have been introduced from Holland at a much later period by a mechanic named John Lofting, who carried on his trade at Islington. There is a curious anecdote related by Froude in his History of England, which shows that thimbles were in general use early in the same century. It is taken from the records of the Consistory Court of London, and is instanced to show the feeling and conduct of the laity towards this court at this period, 1529. "The apparitor of the Bishop of London went with a citation into the shop of a mercer of St. Brides, Henry Clitheroe by name; 'Who doth cite me?' asked the mercer; 'Marry, that do I,' answered the apparitor, 'if thou wilt anything with it;' whereupon, as the apparitor deposeth, the said Henry Clitheroe did hurl at him from off his finger that instrument of his art called the 'thymmelle,' and he, the said apparitor drawing his sword, the said Henry did snatch up his virga, *anglick*, his yard, and did pursue the said apparitor into the public streets, and after multiplying of many blows, did break the head of the said apparitor." The thimble, on this one occasion at least, seems to have been a veritable weapon of defence.

Some few specimens of very old thimbles have occasionally been found in England. I have been favoured with an account of one which was dug up many years ago at Barsham near Beccles in Suffolk; it is of bronze, and bears the date on the rim 1545. The accompanying sketch will be its best description.



Thimbles are usually made in England by means of a mould in a stamping machine, a similar machine to that used in the manufacture of many metal articles of everyday use, which have a more or less concave or convex form, such for instance as spoons and forks. As many are intended for ladies' use, much care and ingenuity are often displayed in their decoration, by embossing, engraving, inlaying, and enamelling; and beautiful and costly specimens are to be found forming part of the furniture of many an elegant work-table. The following short description of the process employed in Paris, in this manufacture, will convey an idea of the mode in use there, as well as in some of our own factories. Strips of metal of the kind and size required are first cut. A child is employed to make them red-hot and to lay them on a mandril, nicely fitted to their size. The workman now strikes the middle of each with a round-faced punch about the thickness of his finger, and thus sinks it into the concavity of the mandril; he then

transfers it successively to another mandril which has five hollows of successively increasing depth, and by striking into each brings it to shape. This rude thimble is taken by a second man, stuck in the chuck of his lathe to polish it within; he then turns the outside, marks the circles for ornamentation, and indents the pits most cleverly with a kind of milling tool; the thimble is then annealed and the exterior is brightened; in some cases fillets of gold are fixed by pressure in the grooves which have been turned to receive them.

Besides the thimbles which we are accustomed to use for ordinary needlework, there are others specially suited to workers in various trades; as a rule thimbles for men's use are made open at the top; this is the case with the ordinary tailor's thimble, which is merely a broad ring, coarsely indented; for sail-makers, are made circular plates of cast-iron, indented or pitted on the surface, which can be secured to the palm of the hand by straps; thimbles of this kind are necessary, their coarse kind of work requiring the application of considerable force to the needle; these are known not as thimbles, but as "palms." A kind of thimble used to be made called a "shield;" a drawing of one which belonged to my own grandmother, and which often

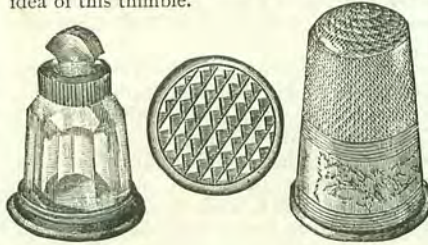


excited my childish curiosity, is sketched for my readers.

It is of silver, and as will be seen is open at the top; it is deeper on one side than on the other, and is very smoothly grooved; it was intended to be worn on the forefinger of the left hand to defend it from the pricking, often inflicted upon herself by an inexperienced or a too eager workwoman.

Another curious thimble nearly one hundred years old is in my possession; it is of silver, and as will be seen by the drawing, in appearance much like an ordinary thimble; on lifting it, however, one finds the bottom filled by a chequered seal, such as was used to press the old-fashioned wafers; this bottom part unscrews, and upon it is fastened a nicely-cut, tiny scent-bottle, with its stopper; the thimble, which is rather a large one, serves as a case for it.

The accompanying sketches will give a good idea of this thimble.



Elegant ivory thimbles are still made, notably by the ivory carvers of Dieppe, and exquisitely painted specimens of Worcester china are to be had; but these of course are more fitted for using in doing wool-work than any kind of fine needlework; at least so we Englishwomen would say; but many a Japanese seamstress would doubtless find them a vast improvement upon the clumsy apology for a thimble which they use. A lady traveller in Japan tells us that she visited one of their model schools, in which the girls were busy making their own clothes, or embroidering. "One young lady," she says, "seeing me amused at the finger-cushions worn as thimbles, got up from the farther end of the room and shyly offered some specimens of them made by herself."

Much more might be said of these, our peaceful "womanly weapons;" may they ever be such, and may the time never arrive when, as Shakespeare says—

"Your own ladies, and pale visaged maids,  
Like Amazons, come tripping after drums;  
Their thimbles into armed gauntlets  
change,  
Their needles to lances, and their gentle  
hearts,  
To fierce and bloody inclination."

MARY B. MORRIS.

VARIETIES.

WOODEN SWEARING.

"I hope, dear children," said a mother, "that you will never let your lips speak profane words. But now I want to tell you of a kind of swearing I heard a good woman speak about not long ago. She called it wooden swearing.

"It's a kind of swearing that many people besides children are given to when they are angry. Instead of venting their feelings in oaths, they slam doors, kick the chairs, stamp on the floor, throw the furniture about, and make all the noise they possibly can.

"Isn't this just the same as swearing?" she said. "It's just the same kind of feeling exactly, only they do not say those awful words; but they force the furniture to make the noise, and so I call it wooden swearing."

"I hope, dear children, that you will not do any of this kind of swearing either. It is better to let alone wooden swearing, and all other kinds of swearing."

SHE INHERITED IT.

"Your daughter has a fine touch, Mrs. Moriarty."

"Yes, so they do be tellin' me; an' sure 'tis no wonder, for she loves the pianny, and niver tires of it; she has a great taste for moosic, but thin that's ownly natural, for her gran'father had his head brokin wid a cornet at a picnic."

BETTER LEFT UNSAID.

"Oh, you are leaving us early, Mr. Brown."  
"Yes, Mrs. Park; and I am very sorry that I must leave, but not expecting to have such a pleasant time this evening I had made another engagement."

SEEKING FOR HAPPINESS.—Seek happiness for yourself and you will lose it, but seek it for others and you will find it.

SELF-CONCEIT.—"We can bear to be deprived of everything but our self-conceit."—*Hazlitt.*

NO NEED FOR DECORATIONS.

When Spontini, the composer, was at Berlin, he appeared in the theatre with his lapels covered with decorations. One of the musicians whispered to his neighbour, "Mozart never had so many."

Spontini having overheard the remark, turned to the speaker and said, "Mozart was not in need of any."

ON A BORROWING ERRAND.—When a lady condescends to a practical joke it is generally a very neat one. M. Boncourt, the rich French financier, was very stingy to his wife in the matter of pin-money. One day, a lady closely veiled, and very anxious not to be recognised, called upon him and borrowed a large sum, leaving her diamonds as a pledge. It was his wife.

ANSWER TO DOUBLE ACROSTIC II. (p. 383).

1. R ober T (a)
  2. A rg O
  3. L am B
  4. E tn A
  5. I saa C
  6. G arli C
  7. H al O (b)
- Raleigh. Tobacco.

DOUBLE ACROSTIC III.

The first of a long line of kings;  
Six kingdoms into one he brings,  
And so they still continue:  
In every fight he leads the front,  
Marshals his men and bears the brunt  
By dint of bone and sinew.  
In time his grandson fills his place,  
The noblest scion of his race,  
A king well-known in story:

(a) Son of Hugh Capet, and King of France.  
(b) A lunar halo always foretells approaching rain.

Devotion to his country's cause,  
Most wise and necessary laws,  
Have crowned his name with glory.

1. A treasure-city in the East,  
Where Median kings held court and feast  
With pomp and ostentation:  
"The seven-walled town," historians said;  
But ruthless wars such havoc made,  
It lies in desolation.
2. A sea-bird that frequents our rocks,  
Sometimes in pairs, sometimes in flocks,  
In diving power excelling;  
He strews a nest, he rears his young  
The bleak and barren cliffs among,  
Remote from human dwelling.
3. A very ancient epic song  
Remaining in the Frisian tongue  
That formed our English diction:  
The hero's deeds, the good he wrought,  
Are told with true poetic thought,  
In allegoric fiction.
4. The chosen fair, when many strove,  
To win the mighty monarch's love,  
And be his queen instated;  
She warned the king of plots concealed,  
And would-be murderers, thus revealed,  
Their treason expiated.
5. A rapid river, rushing down  
From mountains, that the snow-wreaths  
crown,  
The fertile vales commanding;  
It gathers in its downward course,  
Increasing speed, increasing force,  
Till to a lake expanding.  
The river stays its headlong haste;  
Its banks with villa-homes are graced—  
Abodes of peace and pleasure;  
Historian, statesman, artist, bard,  
Shunning the noisy world's award,  
Find here their rest and leisure.
6. A harmless creature, much maligned;  
Held in abhorrence by mankind  
Ere ignorance was enlightened:  
Its shape no sign of beauty shows,  
And may a shudder cause in those  
Who, seeing it, are frightened.

XIMENA.