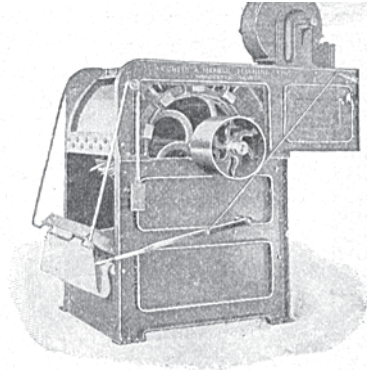


Dictionary of Technical Terms Relating to the Textile Industry.

(Continued from page 102.)

Waste-duster:—A machine for cleansing mill waste. It consists of a series of beaters which rotate above



WASTE DUSTER.

a wire-grating in which the waste is retained while the dust and impurities fall through.

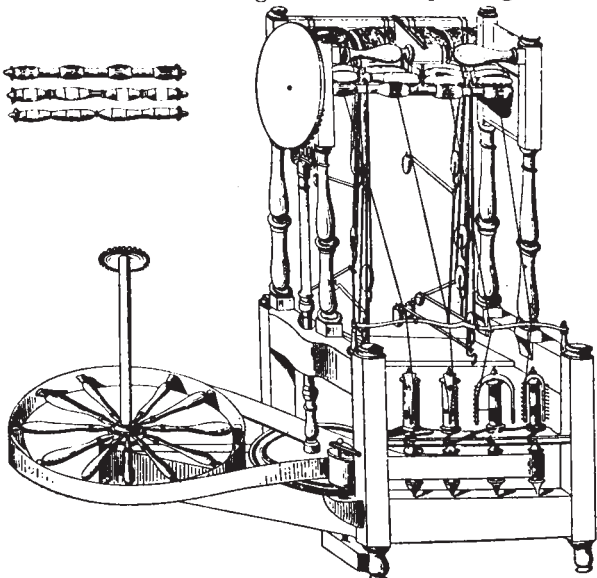
Waste (Wool):—All this waste can be classified either under hard waste or soft waste.

Hard Waste: Under this name we may classify headings, as separated from the finished cloth before making the same ready for the market; old samples; woven waste made in the weave-room by starting warps; hard-twisted or double and twist-yarn waste made in the weaving or spinning department, etc.

Soft Waste: Thus we classify such yarn-waste as has received only a little twist, also roving and card-waste, etc. We do not wish to say by this that all the waste in a woolen mill shall be graded in these two divisions and worked up by two rules; the practical superintendent will grade his waste with equal care as he does his different wools, and make several divisions of each, since if carefully and knowingly treated, waste will take the place of wool, only in a minor quality.

Waterette:—Trade name for water, spot, and perspiration proof black taffetas.

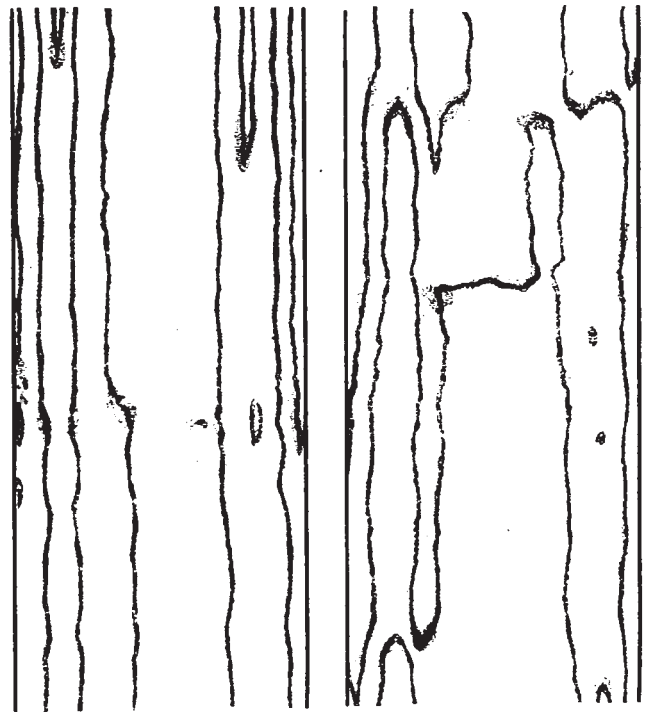
Water-frame:—Arkwrights first spinning frame,



WATER-FRAME
Invented by Arkwright.

which, in conjunction with Need and Strutt, his partners, was originally employed in a mill on the Derwent, at Cromford, Derbyshire, England. This was the first water spinning mill ever erected, and the parent of the present great factory system. The fact that the machines were moved by water-power led to their being called water-spinning machines, and the yarn produced was known as water-twist.

Watering:—A finishing process by which watered patterns are produced on plain woven fabrics. The principle of this operation is that two fabrics of precisely similar build, when pressed together



WATERED SILK.

naturally *water* one another, owing to the coincidence or non-coincidence of the threads or picks causing flatness or ribbedness of a sufficiently marked character under conditions of heat and pressure. Used most often with silk fabrics.

Water Glass:—Silicate of soda, known as water glass or soluble glass has been tried for weighting purposes.

Water of Hydration:—The water which forms an integral portion of the structure of a body.

Water-proof:—Material which repels water; also, a garment made from such material as an India-rubber storm-coat, a mackintosh, shower proof fabrics, etc.

Water Proofing:—Treatment for rendering fabrics impervious to moisture.

Water Twist:—Throstle twist.

Waterslain Flax:—Flax which has been wholly deprived of its gum. It may result toward the end

of the retting, when that portion of the gummy matter which should remain in the fibres is reduced to a mucilaginous state and therefore readily removed by too strong a flow of water.

Water-tabby:—A watered fabric, as silk.

Watteau:—Applied to patterns similar to designs produced by the well known painter, Watteau.

Wattle Gum, or Australian Gum:—A hemispherical or stalactitic lump, with one flat side, by which the pieces—often as much as 4 inches long—have been attached to the bark of the tree. This flat side often contains embedded fragments of bark. The lumps are red-brown in color, translucent, and fairly homogeneous inside. The surface is smooth, with reticulated cracks. The fresh surface of fracture is wholly or partially dull, the dull portions frequently exhibiting delicate parallel markings. When dissolved, the gum has a faint sweetish taste. In spite of the dark color, this gum is superior to the other dark acacia gums, more particularly on account of its ready and complete solubility in water. Used as an adhesive dressing in the finishing of silk and cotton fabrics.

Wave of the Crimp:—A technical term indicating the most regular series of curves of a single fibre of wool.

Wax:—Many varieties of wax are sometimes employed either in conjunction or in combination with tallow, fat, grease, and oil of some kind, as an emollient for size paste. Its use, however, is not generally advisable, and if used at all its application should be confined strictly to sizing warps for such fabrics as are to be sold in a grey state; that is, not bleached, dyed, or printed. Wax of any description should not be used in size-paste for sizing warps for fabrics that are to be subsequently bleached, dyed, or printed, because of the difficulty of removing it effectually from the yarn, even by the process of bleaching. Most varieties of wax of commerce, and more especially wax of mineral origin, as paraffin wax, do not readily dissolve or emulsify and combine freely with other ingredients of the size mixture; but they tend, during mixing and boiling, to rise to the surface of the liquid and collect in undissolved masses. This tendency appears to be more pronounced with wax having a higher average melting-point, such as carnaüba or Brazilian palm wax, Chinese or *insect wax*, beeswax, and paraffin mineral wax; and less pronounced with Japan palm wax or fat, and spermaceti whale wax, which have a lower average melting-point. Wax also offers resistance, in a greater or lesser degree, even to such powerful detergents and bleaching agents as caustic alkali, chloride of lime or bleaching powder, and soda-ash; and it does not saponify completely under their influence, during the process of bleaching. For these reasons, therefore, wax of any kind, and in any form, is quite unsuitable as an emollient for size-paste, especially for sizing warps for fabrics that are intended for bleaching, dyeing, or printing, for should any trace of undissolved wax remain on the yarn after the bleaching or washing process, it will repel and effectually resist the coloring principle of the dye or printing color, and thereby incur the risk of causing white specks,

spots, and other blemishes to appear in the finished fabric. Apart from these objections to the use of wax as an emollient in sizing, however, it serves as an excellent lubricant for the warp-threads, and also keeps down effectually the free extremities of the fibres composing the threads, which it leaves quite supple and smooth. The effect of wax on warp yarn, therefore, is to reduce the chafing action of the warp ends against each other, and also their abrasion by the shedding harness, reed and shuttle race-board of the loom during weaving, thereby reducing the number of breakages of the warp-ends, and also increasing the durability of the shedding harness.

Beeswax and paraffin wax are used in cotton finishing like stearine.

Waxing:—Rolling velveteen with rollers of beeswax.

Weave:—(From Middle English weven, from Anglo-Saxon wefan, weave). To entwine or lace together (threads or strips of pliable material) into a texture, especially by interlacing filling-threads among warp-threads, as in a loom; also, to insert by intertwining, as to weave fibres, yarns, or filaments.

Weavers Knot:—The proper knot to tie throughout any of the different processes in which yarn is handled to and including its being woven into cloth.

A knot presenting strength with the least possible bulk.

A kind of knot used for tying threads which has the peculiarity of getting smaller and tighter the more it is pulled.

Weaving:—The act of one who, or that which, weaves; specifically, the act or art of producing cloth or other textile fabrics by means of a loom from the combination of threads or filaments. In weaving all kinds of fabrics, whether plain or figured, one system of threads, called the filling, woof or weft, is made to pass under and over threads of another system of threads, called the warp, twist, web, or chain. The essential operations are the raising of certain threads of the warp and the depression of others, so as to form a shed for the passage of the shuttle, *i. e.*, filling, which is then beaten up by means of the reed secured in the lathe or batten. Literally, a waving or twining of threads together so as to form cloth.

The making of cloth by the interlacing of threads according to a predetermined pattern.

Many of the nations of antiquity claimed the honor of having invented weaving. Pliny gives the palm to the Egyptians, and says that they put a shuttle into the hands of their goddess Isis, to signify that she was the inventress of weaving. Mitford in his History of Greece says "of the arts, Egypt was probably the mother of many, as she was certainly the nurse of most." According to Bryant's Ancient Mythology, "the art of weaving was first practiced at Arach in Babylonia, and spread thence to neighboring cities, then south to Egypt, and in process of time west to Greece and the countries that afterwards formed the Roman Empire." The book of Job, no doubt the oldest piece of writing in existence also referred to weaving, for he says, when complaining of his sad state "My days are swifter than a weaver's shuttle."