

VIEWS AND INTERVIEWS.

UNCONSIDERED USES OF WOOD.

Creosote. Creosote has for many years been known as a most effectual wood preservative. It was first introduced into England in 1838, and in America in 1865. It is extensively used in all parts of the world for this purpose. It is a product of coal tar, that wonderful and prolific source of so many useful and beautiful products. The distilling process gives us several grades of the article creosote, containing various hydro-carbons. The odor is unpleasant, pungent and strong, but soon disappears upon exposure to the fresh air. An idea of its remarkable penetrative power may easily be obtained by placing some of it upon a thin board. In a little while it may be detected upon the opposite side by its odor.

Silk from Wood Pulp. At Bradford, England, silk has been made from wood pulp so much like the real thing that it bids fair to occupy a like place in commerce and use. It is produced by subjecting vegetable fibre to the action of various acids, the result being a product said to be identical with the filament of the worm, having its lightness, lustre, and all its qualities including that of durability. Commercially speaking the importance of the discovery can hardly be over estimated, and it is possible that it will produce the most revolutionary consequences in the trade in that commodity everywhere. The world's stock of silk, both woven and raw, is immense, and has always held a stable value likely to be much shaken and disturbed by the intrusion of a new supply which can be cheaply and abundantly produced. Samples of yarn, fringe, braid, gimps, sewing silks, hankerchiefs, brocades and other fabrics, dyed in various colours, have been exhibited by the Bradford makers to the trade and pronounced all right and up to the commercial standard in all respects. With artificial silk and artificial diamonds and rubies such as are now being turned out in great abundance, modern society will doubtless take on a style of splendor hitherto unknown, outshining the courts of Solomon or the Queen of Sheba, or the retinues of Mahmond of Haroun Al Raschid.

Bees as Woodworkers. Woodworkers of the human stripe are not all aware that they have predecessors and superiors among woodworkers of the insect stripe. There are "carpenter bees" says a writer in the Lumber World, that do some neat jobs of carpentry regularly. Numbers of the members of this insect class are enormous and very beautiful. "Ylocopa violacea," whose generic name signifies a woodcutter, larger than the largest bumblebee, exhibits choice contrast of color in its brilliant, velvety black body and its rings of a rich violet. England has no specimens of these creatures. Their tasks are as interesting as themselves. They show partiality for old posts and palings, or the woodwork of houses, which is soft, because commencing to decay; but apparently they do not form fresh tunnels, save when old ones are not to be had. The bee usually begins boring obliquely across the grain of the wood, about two days being taken to make the workman's own length; but this may not be so easily done as the remainder, which runs parallel with the sides of the wood for from twelve to eighteen inches. Sometimes an excavation or two will suffice, which generally take opposite directions from the opening; sometimes the bee cuts extra galleries, one above the other, using the same opening. Sharp jaws, moved by powerful muscles, are its only tools; and, as it descends into the heart of the solid wood, the tunnel is swept clean and regular with stiff brushes of hair on the legs, and all raspings made in eating the burrow out are cast forth from the entrance. The sawdust expelled becomes of subsequent use. One by one successive partitions of the chippings, caused to adhere with some sticky fluid, probably saliva, are constructed, dividing the entire tunnel into cells somewhat less than an inch long. Each is supplied with an egg and a compound of pollen and honey; the door is closed; but before deserting her bevy finally, the bee forms a lateral opening from the outside to the bottom of the cells and chokes it with sawdust paste; and through this the young escape when the time for their emergence arrives.

THERE are countless ways in which wood is being consumed, besides the larger uses for fuel, building purposes and the like; and in the aggregate these unconsidered uses amount to a serious drain on the forests, while little or nothing is done to insure a supply for future demands. The enumeration of the special uses of wood in the arts forms a very interesting chapter. One of the principal uses of the wood of the holly, dyed black, is to be substituted for ebony in handles of metal teapots, etc., and the strong straight shoals, deprived of their bark, are made into whip handles and walking sticks. The limetree forms the best planks for shoemakers and glovers, upon which to cut their leather, and is extensively used in the manufacture of toys and Tunbridge ware, and by the turner for pill boxes, etc.; and the inner bark is made into rope and matting. The sycamore furnishes wood for cheese and cider presses, mangles, etc., and when the wooden dishes and spoons were in common use they were mostly made of this wood. It is now used in printing and bleaching works for beetling beams and in iron foundries for making patterns. The yew is used by the turner and made into vases, snuff boxes and musical instruments, and it is a common saying that a post of yew will outlast a post of iron. Where it is found in sufficient quantities to be employed for work underground, such as water pipes, pumps, etc., the yew will last longer than any other wood. Gate posts and stakes of yew are admirable to wear, and in France the wood makes the strongest of all wooden axletrees. Of beech are made planes, screws, wooden shovels, and common fowling pieces and muskets are also stocked with it, and beech staves for hering are not unknown. The sweet or Spanish chestnut furnishes gates and other posts, railing, barrel staves, hop poles, and other matters, such as strong and good charcoal, though scarcely equal to that of oak for domestic purposes, but considered superior to that of any other for forges.

Hornbeam is the best wood that can be used for cogs of wheels, excelling either the crab or the yew; but its application in this manner is about at an end. As a fuel it stands in the highest rank, emitting much heat, burning long, and with a bright, clear flame. In charcoal, it is highly prized, not only for culinary purposes and the forge, but also for the manufacture of gunpowder, into which, on the continent, it enters in large proportions.

In Russia, many of the roads are formed of the trunks of Scotch pine, trees from six inches to one foot in diameter at the larger end being selected for the purpose. These are laid down side by side across the intended road, the thick of one alternately with the narrow end of the other, and the branches being left at the end to form a sort of hedge on each side of the road. When thus laid, the hollows are filled up with earth, and the road is finished, being analogous to the corduroy roads of North America. In Germany, many casks are made of larch, which is almost indestructible, and they allow of no evaporation of the spirituous particles of the wine contained in them. In Switzerland larch poles are much used for vine crops; they are never taken up, and see crop after crop of vines spring up, bear their fruit, and perish at their feet without showing symptoms of decay. The uninjured state in which larch remains when buried in the earth or immersed in the water, renders it an excellent material for water pipes, to which purpose it is largely applied in many parts of France. The butternut is esteemed for the posts and rails of rural fences in America, for troughs for the use of cattle, for corn shovels and wooden dishes.

Shell-bark hickory provides caskets, whip-handles and the backbows of Windsor chairs. The pignut hickory is preferred to any other for axletrees and axe handles. The sugar maple is used by wheelwrights for axletrees and spokes, and for lining the runners of common sleds. Dogwood is used for the handles of light tools such as mallets, small vises, etc. In the country it sometimes furnishes harrow teeth to the American farmer, also lining for the runners of sledges. The mountain laurel is selected for the handles of light tools, small screws, boxes, etc. It most resembles boxwood, and is most proper to supply its place. Bowls and trays are made of red birch, and when saplings of hickory or white oak are not to be found, hoops, particularly, those of rice

casks, are made of the young stocks and branches not exceeding one inch in diameter. Its twigs are exclusively chosen for the brooms with which the streets and country yards are swept. The twigs of the other species of both being less supple and more brittle, are not proper for this use. Shoe lasts are made from birch, but they are less esteemed than those of beech.

Immense quantities of wooden shoes are made in France from the wood of the European alder, which are seasoned by fire before they are sold. The wood of the locust is substituted for box by the turners in many species of light work, such as salt cellars, sugar-bowls, candlesticks, spoons, and forks for salads, boxes, and many other trifling objects, which are carefully wrought into pleasant shapes and sold at low prices. The olive is used to form light ornamental articles, such as dressing cases, tobacco boxes, etc. The wood of the roots, which is more agreeably marbled, is preferred, and for inlaying it is invaluable. Of persimmon, turners make large screws and turners' mallets. Also shoemakers' lasts are made of it equal to beech, and for the shafts of carriages it has been found preferable to ash, and to every species of wood except lancewood. The common European elm is used for the carriages of cannon and for the gunwale, the blocks, etc., of ships. It is everywhere preferred by wheelwrights for the naves and felloes of wheels, and for other objects. White cedar serves many subsidiary purposes. From it are fabricated pails, washtubs, and churns of different forms. The ware is cheap, light, and neatly made, and instead of becoming dull, like that of other woods, it grows whiter and smoother by use. The hoops are made of young cedar stripped off the bark and split into two parts. The wood also supplies good charcoal. The red cedar furnishes staves, cigar boxes, stop-cocks, stakes, and is also used for coffins.

A few special applications of wood in this country are mentioned, separated into trades—namely, sieves, usually of black or water ash for the bottom, and oak or hickory for the circle; whipstocks, white oak; baskets, willow, white oak and shellbark hickory; picture frames, white pine and sweet gum; saddletrees, red maple and sugar maple; screws for bookbinders' presses, hickory or dogwood; hatters' blocks, sour gum; corn shovels, butternut; shoe last, beech and black or yellow birch.—Illustrated Carpenter and Builder, Eng.

ANGLE SHAFTING.

A GRINDER working at a bench that ran along both sides of the room and across the end, was much puzzled to learn how the shafting beneath the bench from which all the grinders were driven was connected in the two corners of the room. Being well housed in beneath the benches, and boxed up tightly where the connections were made, no one at the benches had the slightest idea of this angular transmission till it was one day overhauled for repairs, when it was noticed that belts had been made use of in about as close a position as it was possible to run them. There were six wheels and to separate belts in each corner, besides a short countershaft, and yet this arrangement had run quietly for a long time without making trouble or even given the oiler occasion to look after them. What a belt can stand is astonishing. The first belt ran from the driving to the countershaft overhead, that came so close together that the belt wheels nearly rested on each other. The four-wheel method was then made use of for the second belt, where one of the wheels has to run loose on each shaft to transmit power by this method. In this fashion the shaft was taken beneath a bench around on three sides of a room without gears or any other noisy fixtures.

WOOD WITH THE QUALITIES OF IRON.

THE vermilion tree, says an exchange, grows in India, and is the property of the government exclusively. It is cut by convicts, so much each year. When in its natural state it has the peculiar quality of reflecting light, and is so hard you cannot penetrate it without boring. Its durability is well known. It was used for the main stairway at the great exposition in London in 1851. At the World's Fair, the Pullman Car Company had a car handsomely fitted up, the inside of which was finished in this wood. It has marvelous weight and strength and is really wood with the qualities of iron.