## ARTISTIC WOOD CARVING.

For several years Mr. Ben. Pittman, of Cincinnati, has conducted at Cincinnati an important class for instruction in wood carving, in the School of Design of that city, Mr. Pittman is a gentleman of fine artistic culture and experience, and has been very successful in popularizing artistic work in wood carving. Those who saw the unique and remarkable exhibit of the work of the pupils of the class in the Normal Pavilion at the Centennial, will only need to be reminded of it to recall it with pleasure. We are indebted to Mr. Pittman for the copy of a letter, intended to give those interested some idea of the work undertaken by the students and how it is done, from which we extract the following concerning tools and methods of study. These facts have interest for all who, without opportunity for instruction, may desire to employ their leisure in artistic wood carving, either for pleasure or with a view to profit.

If we describe a pupil's first piece of carving, we shall readily find out what is necessary to be known to suitably decorate so simple a thing as a wall pocket—usually the first article on which a pupil commences. The front of a wall pocket is a rectangular Piece of black walnut, seven-eighths of an inch thick, and eight by eleven inches square, with chamfered edges. To learn something of the nature and grain of the wood, and the use of the only tool that is first put into the pupil's hands, namely, a knife (called a hawk's bill, resembling a very small pruning knife), the Panel is turned to its back, and on this a little experimental cutting is done. A few leaves are drawn with pencil by the teacher, and the pupil outlines them with the knife, first making a vertical cut over the pencil lines, and generally at first, passing over the line twice, to make it sufficiently deep; then on the outside of the leaf a slanting cut is made, deep enough to cut out an angular shaving, leaving a little groove about one-sixteenth of an inch deep all around the leaf. A few leaves outlined in this way will prepare the pupil to treat the face of the panel with assured success.

For the first effort several suitable designs are offered, from Which the pupil selects one. All subsequent designs are made by the pupil, of course assisted and corrected by the teacher. Designs are made on paper with pencil, and when pronounced satisfactory are transferred to the wood by tracing over the design, having a piece of blackened carbon paper placed underneath. The front of the wall pocket is treated as a vertical panel—that is, the decoration must be suitable to a vertical position. A fitting design might consist of a border having a rosette ai each corner, thus giving two horizontal and two vertical lines of ornament. Suitable lines of decoration for the top, bottom, sides and corners are shown, and the pupil selects the most inviting. The centre of the panel would admit of a choice from a great variety of designs. A natural or symmetrical floral design, or a shield, with the owner's monogram, with some encircling sprays, would

be both simple and appropriate.

When the design has been outlined with the knife in the way described, the back-ground—that is, the space not covered by the design-is stamped or grained with a tool, the simplest form of which would be a tenpenny nail with its dull point grooved with a knife-edge file into rectangular cuts, two in the narrow and three in the other direction. This stamp, struck with a mallet, sinking the wood a bare sixteenth of an inch, gives the background a uniformly grained appearance, throwing the designint operceptible relief. If the pattern is then painted with dissolved shellac and the background oiled with clarified linseed oil, a simple but beautiful style of surface decoration is obtained, very suitable for all surfaces exposed to touch or wear, as the top or edges of tables, panels of doors, fronts of drawers, &c. The knife is the best tool for the pupil to commence with. It should be held firmly gripped with four fingers, the edge of the thumb resting on the wood. After a week or two of practice, the pupil will find that outlining may be more rapidly done with a parting or V-shaped tool, which cuts a groove at one stroke.

The pupil is not detained for theoretical teaching. He pro-

ceeds simultaneously with practical work. Students readily perceive that plant forms may be conveniently grouped for decorative uses, as (1) aspiring, (2) clustering, (3) climbing, creeping or drooping forms. The simplest natural elements of decoration are leaves, flowers, buds, sprays, fruit and geometrical forms. These elements may be decoratively employed by (1) repetition, (2) alteration, (3) inclosure (in geometrical forms), to produce lines of ornament, (4) by radiation, to form rosettes and panel decoration, (5) by inclosure to form diaper and allover decoration. Good decoration is attained only when it is suitable for the position it occupies; it must be modest or pronounced, according to the limitations of space, position, &c. The

simplest form of a leaf, placed side by side (the principles of repetition), or leaf and bud (the principle of alternation), would form lines of horizontal decoration. A leaf repeated, one below the other, would form a line of decoration for a vertical position. A line of decoration for the top of a picture frame might consist of leaves or pendant flowers, or buds in a drooping position. A suitable line of decoration for the bottom of a frame might consist of geometrical forms, squares, diagonals, circles or arches, enclosing leaves or blossoms—a treatment suggestive of an architectural base—illustrating the principle of repetition by inclosure. If the upper portion of a frame, or the back of the wall pocket, already instanced, were made with a pediment life finish, space would be afforded for decorative treatment of a more natural or realistic character. The question of conventional or natural treatment, about which authorities differ, readily settles itself in practical work. According as the space to be decorated is limited and the position constrained, will the treatment be more or less conventional. When the space is ample and the position one of importance and dignity (the panels of a cabinet for instance), the decoration may be as natural as the skill of the pupil can make it.

The carving tools with which the pupils begin to lower and model are small and convenient, and of a kind which would be called engravers' rather than carvers' tools. It is believed much of the success that has attended the Cincinnati experiment is due to the success that has attended the chicanati experiment is due to the use of these easily managed tools, the handle of which is  $2\frac{1}{2}$  and the blade 2 inches long, The ordinary carving tool, with its long handle, is held in one hand and steadied and guided by the other. This action requires a special training of the arms, combined with considerable force, to produce accurate with the offect produce accurate cutting. It is similar to the effort required to draw or write ac-The short curately without resting the hand upon the paper. tools, on the contrary, are easily held in one hand, while the other is free to hold and turn the work to the required direction. By special recommendation of the short tools for the fine and delicate work which is first encouraged is, that the training which the fingers and hand have received in holding the pen and pencil for writing and drawing, suffices to give the necessary skill for carving, without spending time in acquiring a new technique of fingers, hand and arm. After six months' practice, when the pupil needs to cut from half to one and a half inch deep, the ordinary large tools, with a little mallet, are used.

Among the work produced in this department of the School of

Design, have been stands and tables of various designs, caskets, foot-rests, wall-pockts, book and dining room shelves, hall-racks, bench ends for churches, hanging and standing cabinets, bed-steads, bracket and standing mantels (a mantel 11 feet high is now in hand), picture frames, table and standing easels, bureaus, washstands, wood and coal boxes, gentlemen's dressing stands, music stands, music-book cabinets, fruit and alms plates, alms boxes, newel posts, pedestals, base boards and wainscoting, a parlor organ and piano, and, not to be omitted though one half completed, the decoration of the great organ of the Music Hall.

The woods most preferred for carving are black walnut and cherry. The latter, when the fruit stain of the wood is developed with lime-water, produces a cameo-like result, throwing up the design with fine effect, especially suited for base boards, reinvesting for wainsscoting, &c.

SIR ROBERT PORTER'S BATTLE OF AGINCOURT.-A few weeks ago a picture one hundred feet long and thirty feet deep, was hung in the Guildhall, London, to remain on view for a week. The picture contains upwards of one thousand figures, and is a representation of the battle of Agincourt. It was painted by Sir Robert Kerr Porter (painter of the Siege of Seringapatam) when nineteen years of age, and was, about the year 1819, presented by him to the Corporation of the City of London. It has occasionally been utilized as a screen at the Mansion House, but owing to its immense size it has been found necessary to cut it into three sections. The centre piece, which is fifty-four feet long, represents the battle at its height. The side pieces are twenty-three feet long. The one on the right portrays the retreat of the French army, while on the left is a beautiful land-scape, with a portion of the English army advancing through a well-wooded and watered country to give battle to the foe. As it is impossible to find space for the picture in its entirety, a committee has been appointed to consider the advisability of mounting and restoring it.

ADHESIVE FOR RUBBER BELTS .- A simple adhesive for rubber belts is made by sticking powdered chalk, which has been evenly sprinkled over, to the surface of the belt by cold tallow or boiled linseed oil.