

dear," said Mrs. Clarville, kindly. "The real gipsy, or Egyptian, as may be, has wandered so long, and had such curious ways, that he has passed out of the road to education, until he shuns it as an enemy. We who call ourselves Christians are much to blame for this state of things; but we are aroused at last, and what with Board Schools and everybody's wish to do good to somebody else, the gipsies are likely either to be rooted out or made like the rest of us."

"I'm sure I hope they won't grow like Tom," said Fan, reflectively. "He scolds me for trying to look after my own people. But you and Mr. Clarville are very good to them, and they love you, if they sometimes laugh at you. I tell them they oughtn't to laugh, because you only preach to them for their good."

"Why do they laugh at us, Fan?" asked Mrs. Clarville, restraining a laugh herself.

"I think I oughtn't to tell; but I will, if you will not tell again," replied Fan, confidentially. "They say that, with all your wisdom, you're not half as learned as they are; for you can only tell them what has happened already, and they can tell you what is to come to pass; for they believe in themselves and their predictions."

"And is that all the good we have done them, Fan?" asked Mrs. Clarville, sadly.

"Oh, no. One thing that you teach them is, they say, far more wonderful than all their arts, because it tells of past and future, and of a world beyond the stars they pretend to prophesy by. This is the history of our Lord Jesus Christ." Fan spoke this solemnly, and bowed her head.

"If we have done only this, we have not utterly failed," said Mrs. Clarville. "But if you believe this marvellous and mysterious story of the salvation of our fallen race, you may be of immense service to your people, as you call our wandering friends."

"How?" asked Fan, suddenly standing still and facing Mrs. Clarville with hands outspread, eyes dilated, and lips apart.

"By studying well the Holy Scriptures yourself, and teaching them to the tribes who eschew both church and chapel."

"I will!" cried Fan, casting up her hands, and uplifting her eyes in a way that in anyone else might have seemed theatrical.

"But, my dear child, you cannot un-

dertake this great work without faith and prayer. We can do nothing of ourselves."

"Will you teach me, ma'am? Mrs. Lee says you could convert the world. May I learn of you, instead of Miss Vigors, who only gives me hard books to read that aren't of any use—all about things that have happened long ago, while I want to know all that is going on now. I like the newspapers best, though they make me cry. Is not the world very, very sad?"

"It is. But each of us can help to make it less so."

"How?" exclaimed both the young girls at once; for each in her different way was excited by what her friend was saying.

"First by doing our duty to God and the relations and friends to whom we belong; secondly, to our neighbour."

"I want to know what my duty is," cried Fan, with an earnestness that startled Mrs. Clarville.

"Come to me to-morrow afternoon, and we will see what God's Word teaches us," said Mrs. Clarville.

"May I come, too, dear auntie?" asked Edith.

"If Mrs. Aspenel has no objection." "She don't like me. She don't think me good enough for Miss Aspenel—I, a born gipsy," said Fan, humbly.

They were at the gate of The Cottages, which was nearly opposite the Park gates, so they separated, Mrs. Clarville going to her small abode, the girls turning towards their homes.

"May I walk a little way with you, Miss Aspenel?" asked Fan.

Edith looked doubtfully at the dogs, and felt dubious about Fan.

"To heel, Rolf! to heel, Jack!" shouted Fan, and her faithful attendants slunk behind her. Then to Edith, "I will run away the moment I see anyone; but I want to ask you something particular, Miss Aspenel."

"Then we will take the side path," replied Edith; and instead of the drive, they skirted the Park wall.

"If my mother, Clorandy, is still alive, and if I have a father, and if I should find them, and if they wanted me, ought I to go away with them, and leave Mr. Harton?" asked Fan, speaking rapidly.

Edith was taken by surprise, and could not answer at once. Fan began again—

"If your father was to lose all his money, and be an outcast, or a bank-

rupt, or whatever they call it, and if everyone was to forsake him, even Mrs. Aspenel, and he was left all alone in the world, would you stand by him and try to comfort him, even though he isn't a very kind father, and nobody likes him?"

"I think—I hope I should, Fan," replied Edith at last, slowly and reflectively.

"I thought you would say that," continued Fan, a shadow passing over her features. "But if you had someone you loved very dearly, far, far away, would you leave your father and run after him?"

"I hope not, Fan. But such a thing could never happen to me. I have no friends at a distance, except Janet, and she, you know, is at school."

"If you had somebody you hated, tormenting you all day long, would you run away from him? I suppose you don't hate Mrs. Aspenel, though I think Miss Janet does; but if you did, would you run away from her?"

"I think not. I must do my duty to my father, and sister, and brother. Besides, I have Nurse True."

Fan's countenance changed; it grew reflectively. Then she said— "Miss Janet isn't as good as you. She would like to run away. She told me so."

"Oh, Fan! you are older than Janet, and should know better. She is very happy at school. She is making many friends, and monsieur and madame are very kind to her. She spent her holidays with them in Paris, and is to go for Christmas with her friend, Miss Hazlewood, to their place in the North. She sent us home a beautiful painting, which her master considers well done, and says she is working quite hard."

"Then why doesn't she come home? What right has Mrs. Aspenel to keep her away from you? There is nothing but injustice in all the world!"

"Fan! you should not speak so. Good-bye. I think I must make haste home."

"I beg your pardon, Miss Aspenel. I didn't mean to be rude. Mr. Tom says I am, and that it is my gipsy blood. I think that is rude of him; don't you?"

"Very; but good-bye, Fan. We must try to do right, notwithstanding our temptations to do wrong."

With which laconic truism Edith hurried off, leaving Fan in doubt whether she had offended her or not.

(To be continued.)

## MOSAIC-WORK, AND HOW IT IS EXECUTED.

THE artist in mosaic, when the art was at its highest and best, felt himself bound by different canons from those governing the other great pictorial art of painting. As was the case with the artist-worker in stained glass, so did he realise that "the domain of his art was imagination," but imagination limited by the special character of the material he worked in. His designs, therefore, were conventionalised rather than naturalistic. The house he depicted need not appear habitable, nor need the plants and trees belong to any

Linnæan genus. These were but symbols; with simple characters he painted the story he had to tell in such a way "that all who ran might read."

The method followed in executing mosaics is a simple one; and yet how important is the part played by this form of decoration in some of our noblest works of architecture! Its results are gained by what is certainly not a very complex process, and the patience, thought, and imagination necessary to every work of art have little bar put on their exer-

cise by any great mechanical or technical difficulty.

We may define mosaic work as consisting of the art of so disposing small cubes of coloured material in a cement bed lying on the surface to be ornamented, as to obtain an ornamental or pictorial effect. These cubes may be of various substances, such as marble, terra cotta, or coloured stones. Those made use of for pictorial subjects, however, are generally a specially prepared enamelled material, and are known by their Italian name of "*smalti*." They

consist of an opaque, glass-like composition, with which, prior to its kiln-baking, are mixed certain colouring matters, principally of a mineral nature, for the purpose of giving the *smalto* the required colour. Thus, the oxide of manganese is used for violet, cobalt for blue, uranium for yellow and black, copper for green and red, iron for yellow and brown, and so on. Great care is taken to avoid an excess of alkaline matter, which, with some colours, is likely to occasion in the course of years an efflorescence not unlike that which we often see on newly-executed brickwork. The preparation of the gold-faced *smalto* is more elaborate and complicated, and is a work of much nicety. It consists in covering one side of the *smalto* with fine gold leaf, and then spreading over the latter a thin film of glass. After being subjected to another baking in the furnace, and being allowed to cool gradually, the whole forms one homogeneous mass, and the gold thus properly united with the other substances should be for ever free from danger of discoloration. The glass-workers of Murano are noted for their skill in this difficult process.

The workman has before him, we will suppose, his *smalto* as it reaches him, in one flat sheet. He proceeds with hammers (*a, b, c*, fig. 1) of various weights to chip off by means of the edge of the cutter (*d*, fig. 1) pieces of a size suitable for his work. These *tesserae* or cubes he arranges according to tint or shape in the various divisions of the box shown in fig. 2. The heavy hammers (*c* and *e*, fig. 1) are used for the harder materials, such as marble. In modern mosaic work there is a

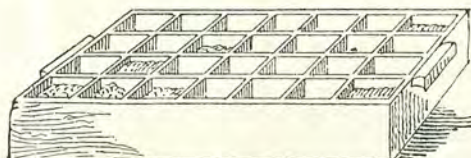


FIG. 2.

bad custom of concealing the joints of the work when executed by smearing them with a suitably-tinted composition, of which wax forms a principal ingredient. For this purpose the spoon-shaped irons (*f* and *g*, fig. 1), heated to a proper degree, are used. The nippers (*h*, fig. 1) serve to pick out the special cube which the workman's eye leads him to consider fitted for his work, while the knives and smaller spoons are employed to smooth and adjust the plaster. Each *tessera* should be slightly tapered to secure a better hold of the cement in which it is to be placed, and this and other niceties of shape are given it by means of a treadle-worked grindstone, shown in fig. 3.

The materials forming the cement in which the cubes or *tesserae* are set have varied in different times and places. The old Roman mosaic-workers used a plaster ground formed of two parts of ground marble to one of lime, or two of *pozzolana*\* and two of hydraulic lime, and with this the ancients seem to have mixed gum-tragacanth to retard its "setting," or becoming dry. Two layers of cement are usual, though not absolutely necessary, for which the following is the usual formula:—

	FIRST COAT.	SECOND COAT.
Pozzolana	10½ parts.	8½ parts.
Ground brick	4½ "	3 "
Slacked lime	8½ "	10½ "
Water	1½ "	3 "

Great care is taken to ensure the adhesion of the two coats, of which the first—laid on thickly

enough to remedy any inequalities of surface in the space to be decorated—is only allowed to "set" for two or three hours before the second is applied.

There are two or three systems upon which the mosaic-worker may proceed to execute his picture.

According to the oldest principle, there would be erected for him a scaffolding, standing on which he would carry out his work, copying in facsimile the full size cartoon he has before him. And it is at this point that the workman becomes the artist, for the modification in the colours and the arrangement of the *tesserae* are matters requiring much artistic perception. Every cube, as he places it in the soft cement, has to be put there with full forethought as to the part it will play as a portion of the decoration of the building. As we have seen, a wedge shape is given to it, in order that it may more easily take hold of the cement. The latter is pressed out, as cube after cube takes its place, and the joints are then smoothed down flush with the face of the work. Should they interfere with the effect of the picture, they are frequently stained with a coloured wash.

There are, however, cases when it is either desirable or necessary that the work, instead of being executed *in situ*, should be, in the first instance, put together in the studio, and ultimately placed in position. Under these circumstances, there are two methods usually made use of.

The first of these, which is known under its Italian name of *Mosaico a rivoltatura*, is conducted as follows:—A frame formed of slate, or of wood lined with zinc, is placed on a slight incline. It is then "floated" with plaster to the depth of the mosaic, and on this surface the subject is drawn. The plaster is then picked out, and finely powdered *pozzolana* somewhat damped, or some similar material, takes its place, and in this, as a bed, are placed the *smalti*. These are of course thus sufficiently held in their place to enable one to judge the effect, and, if need be, to make modifications in the work. When the subject is completely worked out, sheets of paper are strongly pasted over its surface. This paper is cut into sizes that admit of the work being easily manipulated; and over it again is glued a piece of coarse but thin canvas. When the whole is dry, the canvas is cut, and the mosaic is then turned over on its face, whence its name. The *pozzolana* is now blown off, and piece by piece the mosaic is placed on the cement or mastic previously prepared for it in its destined position. When entirely dry the face of the work is easily stripped of its temporary paper and canvas coverings. It is not however considered well to execute a piece of a larger size than about seven feet six inches by six feet wide.

The other method, to which we referred above, has the slight recommendation of quickness, and is much used in the mosaic studios of Venice. The drawing is, so to speak, "traced backward" on cartoon paper, and coloured. The *smalti* or cubes are then glued face downwards on the paper, following the outline and colouring of the cartoon. The work is cut into convenient pieces, is turned over and

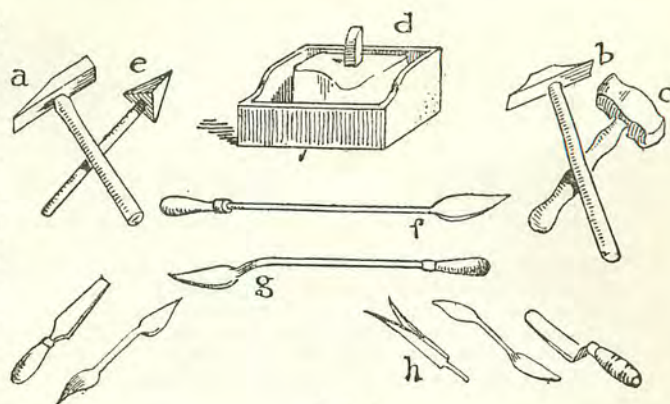


FIG. 1.

placed in the mastic. For this system there can only be urged in its favour that it is quick and that it is cheap. But against these advantages must be placed several grave faults, so much so, that it is mainly responsible for the modern decadence of mosaic-work. The worker is unable to judge of the relative effect of his work, and it is impossible for him to see it as it will really appear when fixed. The operation is moreover a mechanical one, and lowers mosaic-work from the level of an art to that of a manufacture, inasmuch as artistic personality and the skill of the worker have no outlet for asserting themselves.

We have now pretty thoroughly described the material, the fittings, and the method of workmanship to be seen in the mosaic artist's studio. The art is, as our readers will see, one admitting of the exercise of the highest artistic talents, and one above most other arts that permits its executant to look forward to his work being practically imperishable. From the ordinary rank and file of the workers there need only be asked some slight knowledge of drawing, a keen perception of colour in its infinite gradations, and a true and accurate hand. It has often struck the writer that, in these days, when so many girls and women are saying, "We are ready and willing and able to work; give us then work to do,"—there is a possibility that mosaic-work can offer some of them a new (and delightful) field of labour; nor does there seem any right prescriptive by which Venice, and Venice only, should claim the monopoly, and be looked upon as the only home of the art.

C. HARRISON TOWNSEND.

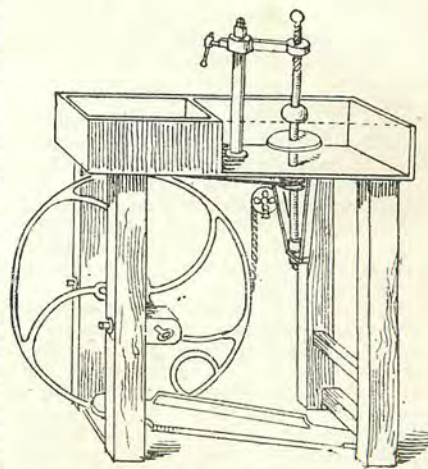


FIG. 3.

\* *Pozzolana* is a fine dust resulting from the decomposition of volcanic scoria.