

preserving them from robbery and profanation by an approaching army (Assyrians?). An examination of the objects found has been commenced. There are thirty-nine mummies, among which are nine kings, seven queens, six princes, and four princesses. Among the first is a king who reigned in the year 1000 B.C., and who was a great conqueror in the style of Alexander the Great. But his mummy is scarcely more than 3 ft. 3 in. long, therefore this great hero must have been of exceedingly small physical dimensions. The objects found near the mummies are so numerous that it will take years to examine them thoroughly. If the Arabs had left what they found in the order in which they had been laid, everything could have been historically fixed and arranged. But Arabs are restless, curious, and disorderly, and the antiquities have been thrown about in indescribable confusion. It is known that one of the mummies must be that of Rhamsees II., but it is not certain. Amongst the remains are traces of indications of the wandering of the soul from east to west. Copies of many objects are also met with, for it was the custom to lay beside the mummies, even of the lower order, the favourite objects they had used during their lifetime; but it seems that their survivors did not always like to part with such useful and beautiful objects, and so substituted for them copies in miniature. The ancient Egyptians, who are usually represented as a grave and gloomy people, were, on the contrary, exceedingly cheerful and fond of enjoyment. Dr. Brugsch found proof of this view in the conclusion of an inscription on the tomb of an Egyptian woman who died in the year 25 B.C., in which the deceased is represented as saying, "Oh, my brothers, my spouse, my friends! drink, love, and be joyful, for the dead are dead, and for them there is no return nor union with the living."

WALL DECORATION.

A writer in the *Chronique des Arts*, after referring to the wonderful work in glass which has been done on the island of Murano, says:

"This art could not escape the decadence, and about the end of the last century its vaunted products had lost their high renown. It remained for our century to bring forth one who, by his studies, researches, observations, and marvellous work, has recovered the art and surpassed all his competitors. Though the Murano Company has produced some very beautiful things, the work of Dr. Antonio Salviati has proved that nothing is impossible for it. At the Milan Exposition we admired some objects which are unique of their kind. There were some vases of extraordinary grandeur, some cups with flowers in relief, daisies and roses of incontestable naturalness, one might imagine that the artist's caprice had sprinkled these objects with freshly gathered flowers.

"Salviati has also recovered the secret of the myrrhine glass, which was so precious to the ancient Romans, and of the 'Christian' glass, with its golden decorations placed between two layers of glass. He exhibited a large glass plate of fifty-eight centimeters diameter, upon which was a painting in enamel representing a Venetian regatta, copied from a picture by Canaletto.

"Another admirable plate was of smoky 'Christian' glass. Its diameter was fifty-four centimeters, and it represented Christ surrounded by the Twelve Apostles. Not less beautiful were the myrrhine plates, sprinkled with lilies of the valley of charming grace.

"In 1859, Salviati first took up mosaics in enamel, which was suggested to him by seeing the forlorn and dilapidated state of the ancient mosaics in the Basilica of St. Mark at Venice.

I have visited his factory, and was astonished at the order and precision which reigns there. After passing through the rooms where the materials are deposited after they come from the furnace, and where they are cut into fragments, and finally into little blocks, with surprising exactness, one reaches the room where the mosaics are put together. At the further end is the picture to be reproduced, and a half score of artists are seated at little tables each with his design, a part of that to be copied, before him. It is incredible how they can make the shades to reproduce the color of the flesh.

"According to the ancient method and that now in use at Rome, the wall to be decorated is covered with a layer of cement, and the little blocks of enamel are forced into it. This takes infinite time unless two or three workmen can work at once; but according to Salviati's method of constructing the mosaic upside down and stuck upon paper, the work is easier and more divisible. He is also able to send his mosaics, en-

tirely finished, to the most distant countries and to put them in place without difficulty. Stuck upon paper, the bits of mosaic are pressed upon the wall, which has been covered with fresh cement; and the paper is then torn off. It makes no difference whether the wall be vaulted, horizontal, or vertical."

EMBOSSING AND GILDING ON GLASS.

There are two ways of embossing glass: by means of hydrofluoric acid and by the sand-blast. The second method being rather beyond the power of amateurs, I shall not describe it here. In the hydrofluoric acid process, the glass is first coated with some protecting substance, and upon this the design is drawn with a sharp instrument, so as to expose the glass below. The acid is then applied, when the exposed portion of the glass becomes corroded. The wax can be afterwards removed. In practice, the glass should be warmed and coated with molten bees-wax (not paraffin, which is too brittle). Superfluous wax should be drained off, so as to leave as thin a coating as possible. Or a composition may be used, formed by melting together two parts of beeswax, two of asphalt, one of black pitch, and one of Burgundy pitch, and heating them together until a drop placed upon a cool surface gets hard and tough. Whatever the protecting substance used, it should be permitted to set, and the design should then be traced with some pointed instrument, care being taken to cut right down to the glass. If the design is complicated, it will be found better to trace it first on paper, and then to go over the lines with a prick. The paper can then be placed upon the wax, and some dark-colored powder dusted over the holes. On removing the paper, the outline of the design will be found marked on the surface of the wax. It will then be easy to cut away the wax at the desired places. A shallow tray of gutta-percha or of sheet-lead must then be taken, and into it be placed about half an inch of the dilute hydrofluoric acid of commerce. The glass must then be placed wax-side down over the tray, and left exposed to the vapor of the acid for some time. On removing it, washing with water, and cleaning off the wax, the design will be found etched in opaque lines upon a bright ground. If required bright upon an opaque ground, the waxed glass, instead of being exposed to the vapor of the acid, should be dipped into the acid itself. After the removal of the wax, the surface of the glass should be ground with very fine emery.

Another way is to draw the design on the glass with a pencil and Brunswick black, using as a guide of sketch on paper placed beneath the glass. On exposure to the acid vapor, the whole background will be rendered opaque. The Brunswick black can be cleaned off with turpentine, leaving the design in clear glass. Instead of Brunswick black an ink may be used, made by dissolving asphalt in turpentine, and thickening with beeswax and resin. Where it is desired to produce an artistic effect by the introduction of shading, recourse may be had to Gruene's patent process, wherein the wax or Brunswick black is replaced by substances not altogether impervious to the action of the acid. The design is drawn with oil-varnishes, greasy printing ink, or some such substances (using a good protector for the high lights, a bad protector for the deep shades, and so on), and is then dusted over with finely powdered metal, copal, &c. When dry, the glass is dipped into hydrofluoric acid and allowed to remain in for a few seconds, and is afterwards washed. If care is taken in the selection of the protecting materials, it is possible for an artistic workman to obtain very striking results.

GILDING.—Gilding may be done either with bronze powder or with gold leaf. If the powder is to be used, the design should be traced on the wrong side of the glass with Japan gold-size thinly laid on, which is afterwards dusted over with bronze powder. When dry, a coat of varnish is laid on. In tracing the design, it must not be forgotten that the wrong side of the glass is being worked at, and that when viewed from the front everything will appear twisted round—the right being to the left, and the left to the right. To gild with leaf the glass must be carefully cleaned and laid upon the design. Then a solution of isinglass is put on by aid of a flat camel hair brush. While still wet, gold leaf is laid on with a gilder's tip (for the sake of economy adhering to the design as nearly as possible). When quite dry, the design, the outline of which has been pricked out as before described, is taken and placed upon the gold. Dark colored powder is then sprinkled on as before. The paper is next removed and the outline carefully