

THE PERE LA CHAISE CREMATORY.

The Pere la Chaise crematory building, which was begun more than a year ago, is now half finished. The experiments that have recently been made in the presence of Messrs. Chassaing, vice-president of the municipal council, Leroux, division chief of the prefecture of the Seine, Formige, architect of the structure, and Schnell, architect, inspector of the work, are so conclusive that the municipal council of Paris can, without scruples, now vote the funds necessary to finish the funeral edifice.

The latter is situated in the northern part of the cemetery, in a line with the chapel, but much beyond, and also beyond the Israelite cemetery. Its present aspect is that of a massive parallelogram, with narrow openings here and there, and somewhat resembling a mosque. It rises above ground to the height of a third story, and is surmounted by two chimneys of white stone.

Only the back is finished. Above the crown of the entablature rise three domes—one might say three church chapels, but in reality they cover the crematory chambers, vaulted and groined halls each containing a furnace.

The front, which is unfinished, will be continued by a vast hall, whose interior will have nearly the aspect of a chapel. It is here that families, during the process of incineration, will congregate, either to listen to eulogies pronounced by orators on the deceased or to assist at the funeral ceremonies.

This hall will be preceded by a vestibule. At first, only the crematory apparatus under the first dome to the left will be operated. This furnace, which is of the Gorini type, already in use at Milan, is not very complicated. Externally, its form is massive, and, on each side, the iron framework that supports the fire brick is so arranged as to receive a wooden frame covered with drapery and forming a bier. Externally, it is closed by four bronze doors, the inner pair of which contain a sight hole to permit the fireman to examine the operation. These doors are lined internally with fire brick.

One of our engravings shows a section of the furnace and the manner in which the cremating is effected. The body, brought to the doors on the carriage seen to the left, is placed upon a bronze plate provided with rollers that run upon rails. It is necessary to slide this plate over an empty space above the orifice of the draught chimney, shown by a white arrow in the cut. A double current of air created above the fireplace forces the flames to envelop the cadaver, which thus becomes quickly carbonized. The fuel used is beech wood.—*L'Illustration*.

Sand Blasting.

The sand blast process is one that has been illustrated and described in these columns, and in other papers, but nowhere have we seen so clear an account of how it is done as we find in the *Chicago Herald*.

The machine suggests a cider mill in shape, or a cheese press. The glass is laid on rubber belts at the side, and is then fed into the machine. As soon as it disappears from view, some rubber flaps come down and prevent the pressure in the interior from escaping. This pressure is exerted by wind and sand—a 20 horse power engine being required to raise the "blow" which drives the sand to the glass.

Looking through the window in the center of the machine, a "gun" is disclosed. It has a large mouth-shaped opening, at which it is loaded with 20 horse power ammunition of wind and sand. Before the ammunition is allowed to leave the gun, the aperture

posite side. This process is called grinding, and one machine will grind about 900 square feet in a day.

Now for the decorative part. Suppose the sand blaster wishes to present on a square of glass a certain design. He simply covers the surface with beeswax and a certain mixture laid on over the glass in exact duplicate of the design required. The glass passes into the machine. The sand is fired from the gun, but this time it grinds only the exposed parts. The portion covered with beeswax and the secret mixture is not touched by the sand, and when the plate emerges from the machine, and the wax, etc., are washed off, behold the design standing out in sharp contrast to the ground surface which the sand has scarified.

This is the A B C of sand blasting. The process is susceptible of much elaboration, and one improvement, which was patented last year by a Chicago gentleman, is called the "ammograph." The pictures are first drawn on the back of the glass by the artist with a color which will resist the action of the sand blast. It is then subjected to the stream of sand, which cuts the glass in all parts which are not covered more or less by the resistant. The resistant is then washed off clean, leaving the pictures cut into the glass. They are next silvered over, if desired, to give greater brilliancy. The effect is that of a multiplicity of colors, but no paint or coloring of any kind is used, the effect being obtained by the different shades of the glass itself.

How they Protect Telegraph Wires in Chili.

According to the *Electrical Review*, when the electrical telegraph was first introduced into Chili, a stratagem was resorted to in order to guard the posts and wires against damage on the part of the Araucanian Indians and maintain the connection between the strongholds on the frontier. There were at the time between forty and fifty captive Indians in the Chilian camp. General Pinto called them together, and pointing to the telegraph wires he said: "Do you see those wires?" "Yes, general." "Very good. I want you not to go near or touch them; for if you do, your hands will be held, and you will be unable to get away." The Indians smiled incredulously. Then the general made them each in succession take hold of the wires at both ends of an electric battery in full operation. After which he exclaimed: "I command you to let go the wire!" "I can't; my hands are benumbed," said the Indian. The battery was then stopped, and the man released. Not long afterward the general restored them to liberty, giving them strict injunctions to keep the secret, and not to betray it to their countrymen on any account. This had the desired effect, for as might be expected, the experiment was related "in the strictest confidence" to every man of the tribe, and the telegraph has ever since remained unmolested.

The Bucharest Spider.

The habits of a running spider of southern Europe, *Tarantula narbonensis*, Latr., studied by Herr Beck, are curious. It makes a vertical round hole in the ground about ten inches deep, and this, with a small earth wall sometimes made round the mouth, is lined with web. A little way down is a small lateral hole, into which the spider shrinks when an animal falls into the tube; when the animal has reached the bottom, the spider pounces on it. One can readily tell that a tube is tenanted, by the bright phosphorescent eyes of the spider turned upward. In fight the spider erects itself on its last pair of legs, striking with the others. The bite is not fatal to man, but it causes large swellings. The children in Bucharest angle for these spiders by means of an egg-like ball of kneaded yellow wax tied to a thread. This is lowered with jerks into the hole, and the spider fastens on it and can be pulled out; whereupon another thread is passed round one of the legs, and the animal is played with.

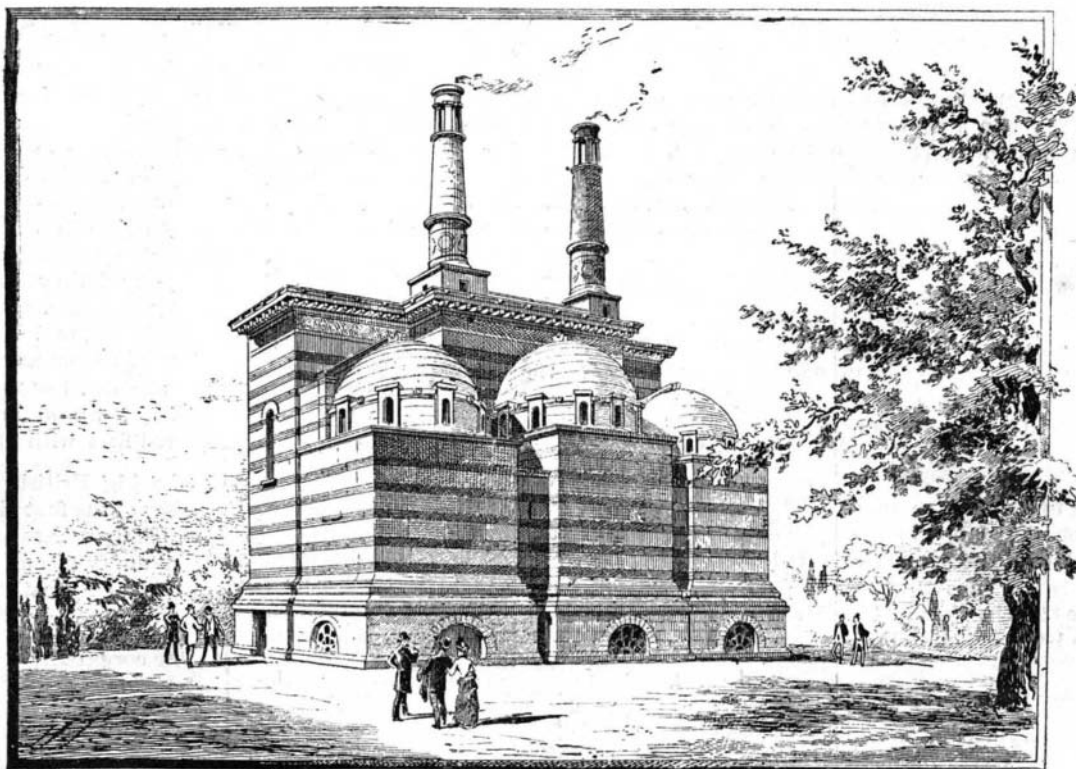


Fig. 1.—REAR VIEW OF THE PERE LA CHAISE CREMATORY.

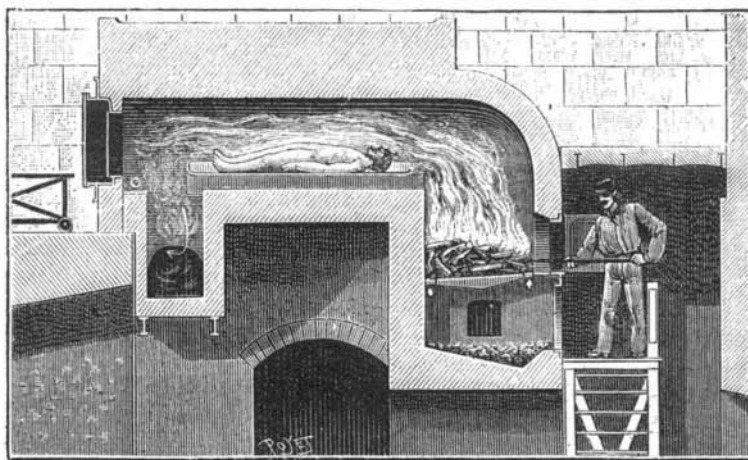


Fig. 3.—SECTION OF THE FURNACE.

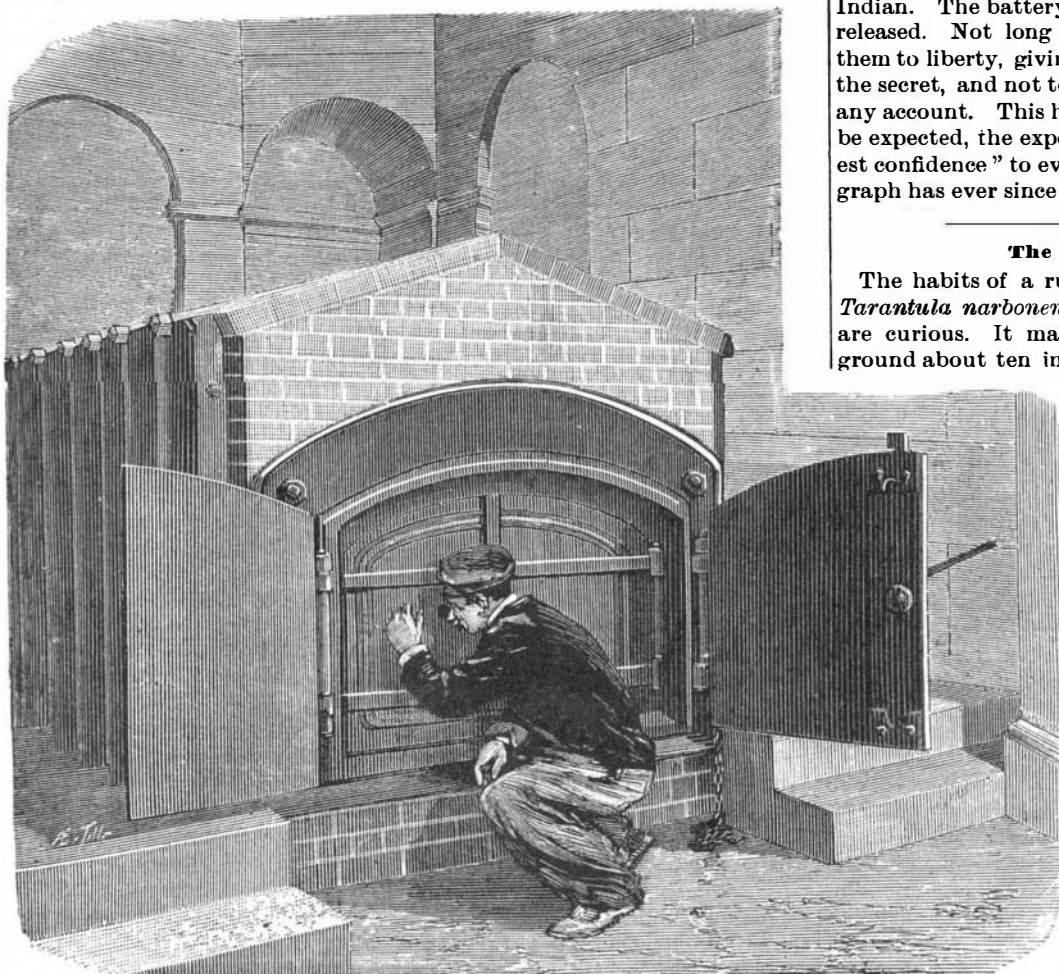


Fig. 2.—THE FURNACE.