POISONING BY ARSENIC.

THE FATAL RESULT PROTRACTED FOR SIX DAYS.

To the Editor of THE LANCET.

SIR:—I submit the following case to your notice, as illustrating a peculiar morbid appearance observed in poisoning by arsenic, one which I have never found noticed by any author who has written upon that subject. If you think the facts of value in a medico-legal point of view, you will oblige me by inserting the case in your valuable Journal. I am, Sir, your very obliged servant,

FREDERICK PAGE, Surgeon.

Beccles, Suffolk, July 12, 1837.

W. S., a fine healthy boy, aged $3\frac{1}{2}$ years, swallowed a small piece of bread which was covered with butter, sugar, and arsenious acid (about 8 grains), which his mother had just prepared to poison vermin; it appears, she had turned her back towards him for a moment, during which time the child ate it. I was immediately summoned to attend, and exhibited an emetic of sulphate of zinc, which produced powerful vomiting; and in about twenty minutes from the time at which the poison was taken, the stomach appeared to be quite free from the drug. During the three following days the child appeared to be as well as usual, but on the morning of the fourth he was attacked with slight difficulty of breathing, quick pulse, hot skin, loss of appetite, and anxious expression of countenance, without sickness, purging, or any indications of pain; in the evening he was evidently sinking, and died on the following morning, at about five o'clock, continuing perfectly sensible up to the time of his death.

S. C.—On viewing the body, ten hours after death, some few dark spots were visible on the surface; nothing particular offered itself to notice, on examining the stomach and the organs of digestion, with the exception of one or two slight traces of inflammation in the former viscus; the liver enlarged, hardened, and of a pale yellow colour; bladder full, distended. The lungs and cavities of the pleura healthy. The pericardium filled with a pale straw-coloured transparent fluid. On dividing the venæ cavæ, close to the auricle, a considerable lump of semi-transparent, perfectly organized, coagulable lymph, fell from this cavity, in which was discovered much more. On opening the ventricles, large strings of the same substance were found to occupy their cavities, interwoven with the carneæ columnæ, and extending from the left into the aorta, nearly filling up the ventriculo-aortic opening. The walls of the heart were pale, flabby, and soft.

Dr. Christison, in his valuable work on poisons, speaking of arsenic, describes its

deleterious action, under three distinct heads.

1st. "Producing death in from twenty-four hours to three days, with signs of violent irritation of the mucous membrane, unaccompanied by distinct disorder of the nervous system."

2ndly. "With little irritation in any part of the alimentary canal, the patient being affected with extreme prostration of strength, frequent fainting, and death, seldom delayed beyond the fifth or sixth hour."

3rdly. "Life commonly prolonged to the sixth day, sometimes much longer; the signs of inflammation in the alimentary canal being succeeded, or accompanied, about the second or fourth day, or later, by symptoms of irritation in the other mucous passages, and more particularly by symptoms indicating derangements of the nervous system, such as palsy, or epilepsy."

I should suppose that the case related above would be placed under the last head; at least, it bears resemblance to that form, so far as time is concerned; but in that respect only, as there seemed no irritation of mucous membranes, no affection of the nervous system, characterised by coma, tetanus, palsy, hysteria, or mania. The only functional derangements observed, were those of respiration and circulation, which, I consider, are to be fully accounted for by the mechanical obstruction of the passage of the blood through the heart, caused by the presence of coagulable lymph in its cavities, and by the obstructed vital energies of the organ itself.

POWDER OF THE ERGOT OF RYE.

To the Editor of THE LANCET.

SIR:—I have observed in some of the late numbers of your able Journal, various opinions on the efficacy and action of the ergot of rye, and I have watched with anxiety their character; but as none have approached so nearly to my own as those offered last week by "OBSTETRICUS," I am induced more particularly to request the publication of my humble testimony, in support of the remarks made by him. After twenty years of general practice, it may not be considered arrogant, or intrusive, in me, perhaps, to do so, as ample opportunities have occurred in that time, by which a tolerably accurate judgment may be formed; and I can safely state, that the superior efficacy and power of this medicine, exist *only in the powder*. I have tried *every other form*, but not with such decided and specific success. I think I may truly add, that it has never disappointed me: within the last few years, many cases of flooding, and inaction, have come under my care, requir-

ing the aid of this antidote to female suffering and pain; and I confidently repeat, from personal observation, that when the presentation is natural, the os uteri fully dilated, and the organ itself inert, I regard it as woman's greatest boon, and the obstetrician's only safe resource. I have administered it in doses of 15 grains, every fifteen or twenty minutes, until action was produced, and I seldom, indeed never, have had occasion to repeat it more than twice or thrice before the dormant energies of the uterus were roused to a full state of parturient action, the foetus, with the contents of the uterus, then being expelled within a few minutes; so marked have been its effects, that, even the attendants have noticed its certain, rapid, and peculiar action; the latter differing so widely from the natural contractions, as not to be mistaken, and as I cannot give a better definition than your last obstetric correspondent, I shall take the liberty of using his own words, viz., That there are distinct intermissions in the natural action of the uterus, while only slight abatements attend the action and administration of the ergot, which I have never entirely suspended until the desired effects had been produced, which were accomplished without even nausea or vomiting. I have also used it in cases of amenorrhoea and dysmenorrhoea, with success. I am, Sir, your's, &c., &c.

W. S. GILL.

Peckham Rye, July 17, 1837.

ADMINISTRATION OF MEDICINES BY THE SKIN.

At a meeting of the Westminster Medical Society, held during the recent session, a report of which we had not room at the time to insert, some very interesting remarks on endermic medication were made, which we shall take the opportunity that now offers of transferring from the form of manuscript to that of print. The subject was introduced by Dr. BUREAUD, who stated that although the endermic method had been much neglected in this country, the continental physicians continually resorted to it with great benefit. In intermittent fever, with great gastric irritation, quinine was administered by them through the medium of a blistered surface, with decided success. They had also employed the endermic plan in typhus, partial paralysis, and other affections. He thought that in some cases the inoculative plan would be preferable to the use of a blister, as when the bladder was irritable, and in parts where the scar of a blister would be disagreeable, or, as in low typhus, mortification was dreaded. The objection to the smallness of dose was not valid, he said, when such substances as morphia and quinine were used, for the

smallest quantity of vaccine lymph, or moribific matter, exerted an influence over the system. He had himself employed the inoculative method to procure sleep, relieve headache, alleviate sciatic pains, prevent the vomiting in gastrodynia, &c., with success, the large surface of the skin affording an ample field for the administration of medicines. He had employed by inoculation the acetate and muriate of morphia, the croton oil, digitalis, tincture of rhubarb, decoction of coffee, strychnine, and various other medicines; and Dr. Ryan had a patient suffering from the most severe sciatica for three or four weeks, who had taken guaiacum, colchicum, and the other remedies without benefit, in whom morphia was introduced into the affected extremity, by inoculation, with relief in the course of an hour. Mr. Hastings had found great benefit in neuralgic and rheumatic pains by the local application of veratrine and aconitine, in the form of an ointment, to the affected parts; ten grains of veratrine to half a drachm of lard, of which ointment a piece of the size of a large pin's head was sufficient. The eruption produced by inoculation varied, Dr. Bureaud said, in character with the agent employed. A pustular eruption followed the inoculation of croton oil; common coffee raised small, red, tingling, papulæ; and tartarized antimony an eruption similar to that raised by friction with the tartar emetic ointment. Mr. Savary had mixed ten grains of acetate of morphia with 160 drops of distilled water, and inoculated himself with this mixture; his pulse fell, very soon afterwards, from 78 to 60.

These statements were followed by some remarks from Dr. A. T. Thomson, who said that the quantity of morphia in solution which could be inoculated by a puncture, was so small that he did not believe any good could result from a single, or from a dozen, punctures, the 12,000th, and, in some instances, the 18,000th part of a grain, in solution, being as much as a lancet would carry. He had no objection, however, to state his firm belief in the value of the endermic method, when employed to a proper extent. With regard to the inoculation of medicines, Dr. Bureaud had stated that small quantities of vaccine virus produced constitutional effects when inserted beneath the cuticle, and thought that medicines acted on the same principle. But it must be remembered, that the vaccine virus exerted a peculiar influence on the part, by which lymph, like that which had been inserted, was formed, and afterwards absorbed into the system. But morphia only produced a local irritation, which other less powerful substances also might effect. The remarkable fall in Mr. Savary's pulse was probably the effect of mental causes. The local irritation produced by medicines inserted under the skin was no proof of their being able to