

wait for its effect to be produced before another attempt should be made. At half-past eleven Surgeon Phelan returned with me, when we both again essayed to turn, but without success, as, although the pains had ceased for nearly an hour, every movement of the hand in the womb excited such violent contraction of that organ as to endanger its rupture.

At three o'clock P.M. Dr. Scully saw her with us; a renewed attempt to reach the feet was made by him, but the action of the uterus opposed so great an obstacle that he was forced to desist. On consultation we determined, as the pulse did not admit of any abstraction of blood, to administer eighty drops of the tincture of opium, and allow three hours to elapse before any further attempt. When we returned at six o'clock, the midwife who was in attendance, gave us the following statement of what occurred during our absence:—Immediately after the draught was taken, she said that the pains returned with great vigour, and continued so for about a quarter of an hour, then they ceased for about an hour and a half, when, after two or three energetic pains, the breach protruded, the hand and arm not having moved, and the child, which seemed to have been dead for some hours, was expelled, the placenta following soon after; the child was of the full size, and appeared to be over six pounds weight.

Although the possibility of birth in arm presentation by spontaneous evolution, is no longer doubted, still, from the small number of cases on record, any addition to them must be of interest to the profession, inasmuch as it will assist us in deciding whether we ought to adopt the precept to wait for the evolution. That spontaneous evolution will not occur in all cases, and rarely happens in proportion to the number of arm-presentations, is proved by the statement of Dr. Burns, in his "Principles of Midwifery,"—"That he has heard of its occurrence only twice in the city of Glasgow, *though some women have died undelivered, or have not been delivered until it was too late to save them.*" From this it would appear, that it is a process of nature, on the certainty of the occurrence of which we cannot so far depend as to dispense with all interference on our part; but when we are unable to produce inversion, it is one for which we may wait, or, perhaps, endeavour to assist, as long as a due attention to the safety of the mother will permit.

In addition to the foregoing, Mr. Phelan has mentioned two others to me, which occurred in his practice, one was the first case of arm-presentation in that female; and, in the other, as in this, it was the second, a natural birth having intervened.

Clonmel, Feb. 12th, 1838.

PROCESS FOR THE PREPARATION OF CREOSOTE.

By W. WAHL, of Leipzig.

(From the *Archives für die Homöopathische Heilkunst.*)

THIS substance was first discovered by Dr. Reichenbach, in the pyroligneous acid, and subsequently in the different sorts of tar. He discovered also, by means of the dry distillation of organic bodies, paraffin, eusseon, and pieamar, substances which have as yet no particular weight in medicine. By means of a series of experiments and indefatigable exertions, he succeeded in discovering creosote, being also the first person that made any medicinal experiments with it. It is not contained in the pyroligneous acid alone, in which he first discovered it, but also in tar, from which he procured larger quantities and with less difficulty. It is of some service, perhaps, to know that it is contained in the acid; but it is better to make use of the tar to procure it.

Empyreumatic substances form a knotty point for us to unravel; nor is it in our power to separate a single one without great difficulty and trouble. The following is Dr. Reichenbach's method of preparing creosote:—

Tar, obtained by the dry distillation of organic bodies (for instance, beechwood) is to be distilled in iron retorts until the residue consist of what is called shoemakers' wax. This substance may be known by its hardening if dropped into water, so as to become brittle, but softening by the warmth of the hand, and becoming capable of being drawn into long threads. It is best to stop the distillation in time, that the residue may not again become carbonised and affect the distillation with empyreumatic substances of the same nature as those which are intended to be removed by means of this first distillation. This product of distillation contains oil and empyreumatic water, which latter is to be discarded. The oil called tar-oil is now put into a glass retort, and rectified, but not to dryness, the water which appears in the recipient being likewise removed. The tar-oil in both these distillations is in the beginning very light, and passes out with a comparatively small degree of heat; it however gradually becomes heavier, and requires a higher degree of temperature for the same purpose. Regard must be paid to that period of the process at which the oil ceases to swim on the surface of the water, but sinks by its own weight. The oil that remains on the surface of the water contains little creosote, consisting principally of eusseon and other lighter substances, very much deteriorating the purity of the creosote, particularly in a physiological point of view

These lighter portions must therefore be carefully removed. The tar-oil is now of a pale yellow colour, heavier than water, becomes brown on being exposed to the air, has a disagreeable smell, and has at once an acid, pungent, bitter-sweetish taste. It is now to be warmed, and bicarbonate of potash added, till carbonic acid ceases to be disengaged; it is then separated from the solution of acetate of potash thus originating, and again distilled from a glass retort, but not to dryness, taking care to remove what first passes over, as long as it remains on the surface of the water. The oil is now to be put into a caustic solution of potash of 1.12 sp. gr., by which means much heat is evolved. A part remains undissolved, still consisting of eusseon, &c., remaining at the surface, and which must be removed. The alkaline solution containing the portion dissolved is placed in an open vessel, and gradually warmed over the fire till it boils. It attracts the oxygen from the atmosphere, which decomposes a peculiar oxidisable principle, and renders the mixture brown. After it is cooled, which is effected in the open air, it is to be decomposed by dilute sulphuric acid, which is added while stirring it till the oil is liberated. This oil is again distilled from a glass retort, and through water. A small quantity of caustic potash is added to the water, sufficient to endow the mixture with a visible alkaline reaction. As part of the creosote is dissolved in water, it is necessary, in order to avoid loss, to bring the latter back into the retort several times. The water must be kept boiling, notwithstanding which the process is very slow, as the expansive power of the creosote even at 100° C. is not very great.

There is one period of the distillation in which, although there is a great quantity of oil in the retort, yet the passing over is very slow, and cannot be increased by any heat. As soon as this arrives it is time to leave off. The residue comprehends the far less easily distilled pieamar, a portion of pieamar, sulphate of potash, some acetate of potash, and the brown-coloured product.

The oil in the receiver must now again be dissolved in an alkaline solution of 1.12 sp. gr., after having been freed from the water which passed over with it; a quantity of light oil still remains undissolved, which must be removed, and which consists chiefly of eusseon, &c.; the mixture is again gradually heated in the open air till it boils, and is then left to cool; it again becomes brown, but less so than before; it is now to be decomposed by sulphuric acid in such quantity that a portion may be taken up by the oil; this is then washed several times with pure water till freed from the acid; it must again be distilled over water, and then contains a small portion of pieamar. Phosphoric acid is now added instead of potash, the oil

being warmed with it after having been shaken together in order to promote union with a proportion of ammonia contained in the mixture. A third solution of the oil follows, in a caustic solution of potash, and if the above-described process have been properly conducted, they, at this period, unite perfectly. No more eusseon is separated, nor does it turn brown on being warmed whilst exposed to the air, but only acquires a slightly-reddish tinge. Should eusseon, &c., notwithstanding, still continue to be separated, and the alkaline solution still turn brown, it must be dissolved a fourth time in the alkaline solution, and again and again, so long as any eusseon or oxidisable principle is discoverable.

The process may now, perhaps, be considered as finished, and the oil obtained by the last distillation as sufficiently pure creosote; the latter is colourless, iridescent, and has all the properties which characterise it as a medicine for caries; if it should, however, be required in a perfect state of chemical purity, it must undergo the following additional process:—It must be again distilled over pure water; the creosote thus obtained is pure, but contains water, and must be distilled by itself; in the beginning, and with moderate heat, much water passes over; this gradually decreases, and, at length, ceases altogether; some creosote passes over simultaneously; this must all be removed; it is only when at heat 203°, C, that creosote alone passes over, that it may be considered pure; it may be brought to a still greater degree of purity by being rectified by itself, and the fumes passed through chloride of lime; it is then found that some oil passes over at a temperature short of 203°, C, proving that some water still remained; this rectification ought to be continued till the creosote only attains its boiling point at this degree; it is necessary to keep the retort over a spirit-lamp, or, at least, over such a medium as shall only heat those parts which are covered on the inside with creosote, not the dry parts of the retort, since, by the least heat above 203°, C, the creosote might be carbonised, or otherwise decomposed; the same care must be observed throughout; the sand in the bath must never rise higher than the liquid contained in the retort, or the contents will chafe and adhere to the sides; at the same time the vapour is apt to become condensed before it reaches the neck of the retort, to avoid which the belly of the retort must be kept from cooling by encircling it with cloths; if this be neglected the process is very slow, otherwise the creosote passes over very freely; at first, the distillation of the creosote containing water has to contend with sudden ebullitions which cannot be controlled by the usual means; as long as this continues the fire must be kept very low, and only then increased when the

ebullition ceases in consequence of the water having been gradually expelled; the residue requires an equal degree of attention, and must not, in any of the distillations, be brought to dryness, as a fresh carbonisation would destroy the purity of the product. In small quantities the creosote may be distilled over without any residue; but in large quantities, where the boiling process is protracted beneath the influence of the atmospheric oxygen, there always remains a small brownish residue in the retort, which seems to denote a gradual decomposition of a small portion. It may be easily seen, that in order to obtain, chemically, pure creosote, the last distillation ought to be conducted in vacuo, by which means the influence of atmospheric air, and of excessive heat, is avoided.

**ON LACERATION
OF THE
PERINEUM IN WOMEN.
BY PROFESSOR DIEFFENBACH.**

LACERATION of the perineum, commonly the effect of difficult or ill-managed labour, does not generally fall under the notice of the surgeon, unless the injury be extensive, and the inconvenience produced by it great. When the laceration is small, nature is, in most cases, able to effect a cure; and even where the whole length of the perineum has been torn through, the orifice of the rectum usually remains intact. I have already, in another work, communicated the result of my experience in the treatment of extensive lacerations of the perineum; the following observations are, therefore, to be considered merely as a supplement to the information then conveyed to the profession. The most recent cases of laceration of the perineum, which have fallen under my notice, are the following:—

CASE 1.—The perineum of a young woman, 26 years of age, pregnant for the first time, and in whom the genital organs were remarkably small, was lacerated to the extent of an inch. I saw the patient six hours after the occurrence of the accident, and having removed the coagulated blood and lymph by which the edges of the wound were covered, I brought the latter together by three sutures. The parts were frequently bathed with warm water, and then some lint, moistened with the lead lotion, applied. On the third day I removed the two common sutures, and on the fourth, the twisted one. The union was perfect. The continued use of the Goulard's lotion removed, in a few days, some inflammatory tumefaction of the labia.

CASE 2.—Laceration of the perineum, to the extent of an inch and a half, occurred in a female, 30 years of age, while giving birth to her third child. I saw the patient ten hours after delivery; the wound was clean, and its lips filled with firm coagula. I applied four sutures; two common, two twisted. The dressings were the same as those employed in the preceding case. On the third day the edges of the wound appeared united, as far as the commissure. I now removed the anterior suture and allowed the rest to remain until the fifth day. Up to the eighth day the knees were bound together with a handkerchief. The union now appeared to be solid, and the conformation of the external genital organs was not, in the slightest degree, modified.

CASE 3.—A young woman, 22 years of age, fell from a height of a few feet, and struck the perineum against the edge of a stool. On examination, the genital organs were found considerably swollen, the vagina full of coagulated blood, and the left side of the perineum lacerated to the extent of half an inch. Two twisted sutures were immediately applied, and the antiphlogistic method of treatment had recourse to. The inflammation was thus quickly subdued, and the sutures removed on the fourth and fifth days: the cure was complete. An oedematous tumefaction of the surrounding parts, which persisted for several weeks, was removed by the use of Goulard's lotion.

CASE 4.—A young married woman, 24 years of age, fell upon a porcelain chamber utensil, which broke into several fragments and wounded the perineum in various directions. Both labia were divided in different places, and one wound extended backwards for about the length of an inch, through the middle of the perineum. There were also several deep, long wounds in the parietes of the vagina, from which I extracted some fragments of porcelain. The patient had lost a considerable quantity of blood, and lay in a state of complete syncope. After having cleaned the wound and the vagina with injections of cold water, I applied a number of sutures at the different points which seemed to require them. The parts were covered with lint moistened in a cold lotion; leeches were applied to the inflamed organs, and a strict regimen enjoined. The whole of the wounds were quickly united, with the exception of one small one, which suppurated, but finally healed in a few weeks. The patient, since then, has given birth to several children, and the cicatrices have remained perfect, not one having given way during labour.

CASE 4.—A female, 30 years of age, suffered under incipient prolapsus of the uterus. The genital organs were remarkably