months, and always attended with all the distressing symptoms of acute dysmenorrhœa. Since the first appearance of the menses, she has had almost constant leucorrhœa. The health of her family is good; her mother, four brothers, and two sisters, being alive and well.

At Michaelmas 1849, she made a short journey to a neighbouring market town, whilst suffering from the effects of cold, and complaining of slight stiffness in the left groin. She stood about with damp shoes on, all that day, and on the next morning she discovered an enlargement of the left labium; it was quite hard but not tender to the touch. In a few days a bubo formed, suppurated, and was opened, and after the labial swelling had existed a short time, it began to discharge from its surface a clear watery fluid, but of so irritating a character, that wherever it chanced to lodge, it produced painful excoriations, and sexual intercourse could no longer be tolerated. The treatment adopted at the time did not alleviate her symptoms, constant irritation acting upon a very excitable mind, soon produced great exhaustion, and she became so debilitated, as to be incapable of attending to her domestic duties. Upon making an examination, the left labium was found considerably enlarged,—viz., projecting beyond the other about an inch and a half, and extending itself in front of, and concealing, the genital fissure. The swelling arose in the mons veneris, and terminated at the fourchette or commissure of the labia. It presented an irregular, or *wrinkled* appearance, from slight eminences and depressions on its surface. It was firm to the touch, and of rather a darker colour than the other labium. In the left groin was a sinus discharging freely, and the parts about the vulva were excoriated. She was ordered to take a good nutritious diet with malt liquor, to pay special attention to cleanliness by frequent sponging with cold water, and to take—

Ferri Iodidi, gr. ij.; Decoct. Sarzæ Co., (Bass) dr. j.; Syr. Aurantii, dr. j.; Tinct. Valerianæ, dr. ij.; Inf. Gent. Co., oz. j., ter die.—Hyd. cum Cretâ, gr. iij; Extr. Conii, gr. iv.; Extr. Coloc. Co., gr. v., alt noct.

April 11th.—The patient's health has greatly improved, and she has gained flesh and strength. The tumour continues in the same condition. Removal was proposed and readily assented to.

April 12th.—The patient having been secured in the lithotomy position, the operation was performed in the following manner:—The tumour was drawn forward from the pubes, and its base transfixed near the clitoris and on a level with the nymphæ, with a straight bistoury, which was then carried downwards to the fourchette and brought out. The knife was reapplied and directed upwards towards the mons, by this means the labium was speedily removed. The round ligament was laid bare, and three small arterial branches bled, but did not require a ligature. The edges of the long elliptical wound were brought together by interrupted sutures, and cold-water dressing applied.

April 30th.—Wound perfectly healed without any untoward symptom, and patient's health restored.

REMARKS ON A CASE OF
PUNCTURED WOUND OF THE NECK OF
A NEW-BORN CHILD,

SUPPOSED TO HAVE BEEN INFLICTED WITH AN AWL.

By CHARLES H. BUTLER LANE, M.D., EWELL.

ON Friday, August 17th, 1849, about noon, I was requested to visit a woman of the name of Eliza Tarrant, who, I was informed, had been confined the previous day without medical attendance. I found her going on well, but on asking for the child, was told that it had died the previous night. On inquiring as to the cause of death, the woman in attendance told me that it had appeared weakly from the time when she first saw it, (an hour after birth,) and that it had bled somewhat from the nose and mouth. The body having been placed in a rudely-made coffin, prepared by a man of the name of Denny, with whom the woman had been living some time, so as to be ready for burial, I had it taken out and undressed. On examination, the corpse was that of a fine full-grown male infant, presenting no unusual appearance, except a narrow bruised mark on the back of the neck, and what was apparently a SLIGHT scratch in a perpendicular direction, a little to the right of the lower part of the trachea, and internal to the margin of the sterno-mastoid muscle. This scratch was slightly encrusted with blood. I learned that it had bled somewhat, and was supposed to have been occasioned by a piece of the hay stub which was littered over the floor of the loft in which the birth had occurred. The coincidence of the minute external wound with the bleeding from the nose and mouth, which I ascertained to have been considerable, roused my suspicions of foul play, and at my instigation, therefore, an inquest was at once appointed.

By the coroner's order the body of the infant was carefully examined, and my friend Dr. Shelley, of Epsom, kindly assisted me in the *post-mortem*. The following were the results:—Externally there was nothing to be seen beyond what I have described, except a very small ecchymosed and abraded spot near the scratch mentioned, and the appearance about the neck and shoulders, which would naturally result from cadaveric gravitation. No blood was obvious in the mouth or nostrils. On carefully raising the skin adjacent to the apparent external scratch, the subjacent effused blood rendered it evident that the puncture had penetrated beneath the surface, and extended into the cellular tissue of the neck, but so small was the aperture, and so active had been the healing and consolidating process, that the finest probe could find no passage. The track of effused blood, after passing somewhat inward, curved suddenly upwards, and could be followed to the extent of more than an inch, until it reached the lower and back part of the pharynx, where the sanguineous effusion became much more diffused, and then all further trace of it ceased. The course of the wound in question appeared to traverse within the carotid sheath, but no considerable vessel could be

detected to have been injured; the nerves were perfect, and the jugular vein was turgid with blood. Where the course of the wound began to assume the curved direction, three minute pieces of hay, from a quarter to three-quarters of an inch in length, were discovered lying longitudinally, about half an inch from the external aperture, and close to the carotid vessels. The diffusion of the coagulated blood in the vicinity of the trachea, larynx, and œsophagus, induced both Dr. Shelley and myself, at first to suppose that the wound had extended into one of those passages, but such could not have been the case, as not the slightest abrasion could be detected on their internal, smooth, and shining surfaces. The careful examination of the internal surface of the pharynx did not enable me to detect any solution of continuity, though it had rather a livid appearance, and there was blood effused in the submucous cellular tissue towards the right side. No lesion could be detected in the mouth or nose, which could have given rise to the hæmorrhage. The brain was perfectly healthy and remarkably firm. The lungs were in parts somewhat congested, but their general condition, and the descent of the diaphragm indicated them to have been quite adequate to their vital functions. At one spot under the scalp there was some effused blood, but the cranial bones and the cerebral membranes were perfectly healthy and uninjured. In the stomach was a small light flocculent substance with a dark nucleus, having the character of a blood clot, which had undergone maceration. The veins and the right side of the heart contained a considerable proportion of dark fluid blood, whereas the left side of the heart and the arteries were nearly empty.

According to the evidence furnished before the coroner, and subsequently before the magistrates, Eliza Tarrant was seen soon after the birth of the child by two women, who were called to her by the man Denny, and it was shown that he could not have been alone with her very many minutes before he sought assistance. These witnesses deposed to having found the woman on the floor of the loft, delivered of the child, which was resting on her arm, and was separated from her, the umbilical cord being torn asunder; that the body of the child was covered with short hay, which was strewn over the floor of the loft; and that there was bleeding from the mouth and nose, and also from the neck, but none from the cord. After the women had been attended to, the child was taken to a neighbouring cottage for the purpose of washing and dressing. It seemed weakly and cried but feebly. Fresh-coloured blood kept oozing from the mouth and nose, but it was neither coughed nor vomited up, and it was estimated by one of the witnesses to have amounted to as much as a half a pint. The scratch in the neck continued to weep, so that it is supposed that more than a teaspoonful of blood issued therefrom. A little sugar and butter was given to the child, which was readily swallowed, and it was then taken back to the mother. The next day the witnesses learnt that the child had died in the course of the night.

My evidence comprehended the circumstances which

I have already detailed, and I produced the portion of skin implicated in the wound, with the subjacent cellular tissue, preserved in spirit, and also some of the particles of hay found in the wound. I had in my possession a packing needle, and two curved shoemaker's awls, which I had found in the loft. On the packing needle there was nothing but rust; on one of the awls there was rust and some fatty matter; and on the blade of the second, in addition to marks of rust, there were some peculiar looking spots evidently not rust, but I was not then prepared to identify them as blood, although I strongly suspected them, and my suspicions were subsequently confirmed by careful examination and comparison. I stated my belief that the wound had been made during life, by an instrument similar to the awls in question, and gave as my opinion that, such a wound *might* undoubtedly be fatal in its effect, and that it was the only obvious cause of the death of the infant in the present case. I did not however feel justified in swearing positively that the wound had been the actual cause of death, inasmuch as I did not see the infant during life, nor indeed until more than twelve hours after its decease, so that the symptoms connected with the injury did not come under my personal cognizance; and moreover, being unable to trace the actual transit of the wound through the pharyngeal mucous membrane, I could not therefore conclusively demonstrate the connexion of the external wound with the hæmorrhage from the nose and mouth. I was, however, enabled to state decidedly, that it was impossible that the wound could have been made accidentally by a piece of hay or straw, as I had carefully but ineffectually endeavoured to puncture the skin with the strongest stalks which I could find in the loft where the birth had occurred.

The verdict of the coroner's jury was that, "*The deceased was born alive; that there is a punctured wound on his person, but we have no sufficient proof that it would cause death.*"

The case subsequently came under the jurisdiction of the Epsom Bench of Magistrates. In the statements made meanwhile by the man Denny, there was some discrepancy. At one time he declared that he had left the awls on the ledge in the loft (where I found them,) the night before the woman was confined; at another he acknowledged to having them in his pocket when he first came into the loft after the birth of the child, and he suggested that the injury might have taken place when he was descending by an awkward ladder from the loft, with the child in his arms—an hypothesis which carried improbability on the face of it—and, moreover, one of the witnesses declared to the bleeding from the neck taking place before the child was removed from the loft.

The woman Tarrant also made a statement, which inculpated the man: she declared that he took the child from her when first he entered the loft, that he carried it towards that part of the loft where the awls were found, his back being turned to her, that she heard the child make a strange noise, and that when he again gave it to her it was bleeding from the neck.

The magistrates committed the man and woman for trial, on the charge "*of feloniously wounding with intent to commit murder.*"

The man Denny was put on his trial at the Kingston assizes on the 2nd of April. He was indicted on two counts,—the first for wilful murder, the second for feloniously wounding. A bill was also preferred against the woman Tarrant, but it was ignored by the grand jury. She was consequently, therefore, subpoenaed in evidence against the man, and her testimony accorded with her statement, which I have already referred to. The evidence of Denny's son, a boy eight years of age, was also taken: he declared he saw his father stab the infant with the awl, and also that he pushed some hay into the wound; and that Eliza Tarrant also stabbed it. She, on her part, swore that the boy was not present during the transaction, and there were other discrepancies between the evidence of the two witnesses, though agreeing in the main fact. My evidence was to the same effect as before, and in addition, I was able to identify the presence of blood on one of the awls. In my cross-examination I declared my opinion, *that a wound such as was discovered on the body of the infant might prove fatal, and that, under the circumstances, and in the absence of any other morbid appearance, I did believe the wound in question to have been the cause of death.* The judge wished me to give a simple affirmative or negative answer as to whether the wound was necessarily fatal, but as the matter was one of opinion, and not a mere question of fact, I insisted on my right to qualify my answer as above.

After two hours deliberation the jury found the man guilty of "*wilful murder,*" and sentence of death was passed upon him; he was, however, reprieved, and subsequently received a free pardon, owing it is said to the representation of Mr. Justice Maule, that the evidence on which the conviction took place was unsatisfactory and insufficient.

The peculiar circumstances of the above case occupied my attention to some extent, and as it comprises many points of medico-legal interest, I shall now briefly sum them up, and offer a few observations in connexion therewith.

1. The perfectly healthy condition of the body of the infant, both externally and internally, with the exception of the wound, and the appearance that hæmorrhage had taken place, was suggestive of the possibility that it had met with foul play, and the combination of circumstances which I have narrated, converted that possibility into a very strong probability.

2. What was the immediate cause of death in this case? I believe it to have been arterial hæmorrhage, combined with the direct shock of the wound. The estimate of the amount of hæmorrhage of course could not altogether be depended upon: it was probably less than the evidence of one of the witnesses represented, for a little blood makes much show. In a new-born infant, however, the loss of a small portion of arterial blood would be likely to prove fatal. Immediately after birth the great effort of the vital powers is the conversion of venous into arterial blood in the pul-

monary organs, and this converting process is but gradually established. If, then, an abstraction of this arterial blood take place at an early period, even to a small extent, and for a short space of time, the vital powers cannot maintain themselves, death must result—*vita cum sanguine fugit*—whereas, I doubt not that an infant can bear a considerable amount of venous hæmorrhage, that the tolerance of venous hæmorrhage will indeed be widely disproportioned to that of the arterial.

3. Assuming the child to have died in consequence of hæmorrhage, the statement of the witnesses precluded the supposition that such hæmorrhage could have taken place from the umbilical cord; they asserted, positively, that it was not bleeding when they saw the child, and did not appear to have bled,—that the ruptured extremities were much attenuated and irregular, as though the cord had been torn asunder. The woman Tarrant herself also declared that she had torn it, and being thus ruptured there certainly was little chance of hæmorrhage, as may be readily ascertained.

4. The character of the wound was peculiar. On the first inspection it presented the appearance of the merest scratch, and had not the circumstance of hæmorrhage from the mouth and nose arrested my attention, I should probably have passed it over as a mere cutaneous abrasion, which had taken place accidentally from the casual contact of a stalk of hay or straw. The subsequent maceration of the skin in spirit, however, made the external injury very clearly manifest, the wound being about one quarter of an inch in length, the point of the instrument having evidently slipped a short distance upwards along the skin: before it effected the puncture, which corresponded closely with the shape of the point of one of the awls. The left margin of the wound was somewhat ecchymosed, and a little to the right there was a slight abraded point, like the commencement of another puncture. The aperture of the wound was quite closed, but the effused blood in the subcutaneous cellular tissue proved that it had penetrated.

5. The curved direction of the blood track was remarkable: it accorded with the curved shape of the awl, but anticipating a straight puncture, I could not at first account for it. The extended diffusion of coagulated blood internally, suggested that the pointed instrument must have been worked about after it had been introduced. That the large blood-vessels should have completely escaped injury was singular, but at the same time it fully accounted for the slowness of the external hæmorrhage. The presence of portions of hay in the track of the effused blood tended to prove that the injury had been occasioned by some foreign body, but I certainly could not believe that any piece of hay-stalk, such as was littered on the floor of the loft, could have occasioned the wound; and moreover, had the injury been inflicted by a piece of straw or hay-stalk, from the depth of penetration, it would probably have remained in the wound.

6. From the original direction of the wound I certainly expected to find it had penetrated the trachea, larynx, or œsophagus, but on examination it was obvious

that such was not the case. The corrugated and somewhat livid state of the pharynx rendered it impossible for me to detect any wound or cicatrix thereof in its surface; but looking at the extent to which the healing consolidating process had gone on at the exterior part of the wound, we might expect that the solution of continuity in the mucous membrane would be still more perfectly restored, and that submucous sanguineous effusion would afford the only indication that the membrane itself had been punctured. Moreover, the bleeding from the mouth having taken place, without either vomiting or coughing, was certainly more symptomatic of an injury of the pharynx, than of one either of the larynx or trachea.

7. The appearance of the awls to which I have alluded tended to confirm the suspicions entertained. As already mentioned, their shape near the point (of one more particularly) corresponded with the external puncture, and the curve of the blade was in accordance with the direction of the wound. The awls were tolerably clean and bright, and at first chemical and microscopic examination could detect nothing on them but a little rust and fatty matter. A more careful subsequent scrutiny, however, convinced me that some of the stains on one of the awls were peculiar, and repeated examination and comparison of the stains *in situ*, with the aid of the microscope, gave me a strong conviction that they could be occasioned by nothing but blood. A very minute portion of membranous substance was detached, and at first supposed to consist of fibrin, having a little of the colouring matter of the blood entangled in its tissue. A very eminent microscopist confirmed my opinion as to the presence of blood, but pronounced the fibres to be derived from linen or cotton, (the awls being wiped with a cloth or cotton handkerchief, such fibres would readily adhere, or they might even be derived from the pocket lining.) The presence of blood was a most important point of evidence, and it is well known that there is often much difficulty in detecting blood stains for medico-legal purposes. By chemical examination we may arrive at a strong presumption of the presence of blood, when it is in sufficient quantity to afford a solution of its colouring matter in distilled water. When, however, the stains are slight, and especially if they are on iron or steel, I believe chemical examination to be utterly unavailing for their detection, and that the microscope alone can aid us in our research. For this purpose it has hitherto been little employed, but numerous experiments which I made in consequence of the case under consideration, have convinced me that its agency is available with great advantage, and that much of the fallacy which is connected with the detection of blood-stains may now be readily obviated thereby. At a future period I shall enter into this subject in detail, but at present I shall only briefly state a few of the results of my inquiry. I have no doubt that by microscopic aid we can generally detect blood-stains, however minute or ancient, on metal, wood, linen, cotton, &c., when not recognizable by any other method; and we are, moreover, enabled to distinguish with certainty other similar stains which

are apt to be mistaken for those of blood. It is really surprising how minute or faint a stain of blood may be demonstrated by microscopic power, and how vividly the characteristic hue is made manifest. The colour of the blood is very peculiar: it is a strong, fixed red, differing distinctly from the two tints more especially assumed by rust, viz., a bright crimson and a yellowish red. The application of ammonia produces no effect on the colour of the blood, distinguishing it readily from any red vegetable pigment. When adherent to iron or steel the appearance of blood stains is very different from that of rust in another respect besides that already mentioned. It is more diffused and irregular, whereas, rust assumes a linear arrangement, or else presents the appearance of a fungus-like growth. Blood stains are more permanent than those of rust, that is, they are less liable to modification, not having the same augmenting corrosive tendency. The commixture of blood and rust, will certainly often produce very perplexing appearances, but patient and persevering observation will not fail to detect the combination; whereas, in such cases, the result of chemical examination is sure to prove most unsatisfactory. Much has been said by Orfila and others as to the resemblance of the stains produced by lemon juice on steel to those of blood, but with the aid of the microscope such a mistake is impossible, there is no analogy in colour whatever. On linen, wood, cotton, or paper, the slightest smear or trace of blood, though quite unrecognizable to the naked eye, can readily be made apparent with a moderate magnifying power, aided by a strong reflected light, though chemical examination will be utterly vain. I have been able again and again to recognize blood on a splinter of wood taken from a floor where it had probably existed for years, in spite of wear and washing. There is no stain more indelible than that of blood, and so subtle is it, that it seems to incorporate itself with equal facility with some of the hardest as well as the softest tissues. I acknowledge, however, that occasionally it may be somewhat difficult clearly to give our reason for pronouncing a stain to be that of blood, and that we must rely on evidence of a negative character, arriving at the conclusion that it is a blood stain, because it is like nothing else.

Ewell, Surrey, July 24, 1850.

CASE OF OBSTRUCTED VAGINA, WITH REMARKS.

BY W. NEWNHAM, ESQ., FARNHAM.

Read before the Annual Meeting of the South-Eastern Branch.

THE following case contains some hints of practical importance which may not be uninteresting. Its publication has been delayed till all the parties closely connected with it have passed away from the present life; and it is now presented with the hope of extracting