

&c.) according to the exciting cause or condition of existing debility. We also perceive why in such cases marasmus, tabes, phthisis, &c., should frequently follow.

These considerations led me to adopt the following formula, and to employ it in the manner described, the dose here given being for an adult, and the case one in which the whoop is established:—Antimonial wine, twenty minims; tincture of aconite, four minims; potasso-tartrate of iron, eight grains; distilled water, one ounce.

1. I selected tartar emetic to increase the bronchial secretion, and thus facilitate expectoration. It has been universally used in whooping cough for many years, without any of those symptoms of intestinal irritation being observed which usually render great caution necessary in administering it to children.

2. I selected aconite as a sedative exercising a general and special nervous influence, without previous vascular excitement, and which also acts as a sedative on the muscular system. Of its poisonous effects I have never observed the least evidence, and need hardly remark that it is far safer than hydrocyanic acid, because less variable in its strength.

3. Iron, both from the strong evidence as to its special value in whooping-cough, and from its remarkable efficacy in atonic neuralgiae and nervous affections, naturally suggested itself as applicable to counteract the third of the modifying influences described.

The dose, regulated according to age, is administered three times in the day, and twice in the night. I expect in two days to find some change in the relation of the three morbid conditions, requiring a corresponding modification of the medicine.

1. If the cough continue long and hard, and recurring after the first whoop has been accomplished, then the relative proportion of the antimonial is to be gradually augmented until its influence is established.

2. In the same way the amount of aconite may be cautiously increased, if, with free cough and expectoration, the laryngeal symptoms, the kink and the whoop, do not abate; but I never increase the adult dose beyond six or eight minims.

3. If the child remain pale and exanimate after the attack, or be of feeble constitution, then the proportionate dose of the iron should be augmented, if the strength does not rapidly improve as the attacks diminish in intensity. But if at the end of a week the symptoms are not improved, I think I am justified, from the observation of a large number of cases, in expressing a decided opinion that there then exists some extrinsic cause, keeping up an irritative influence, and perpetuating the reflex recurrence of the spasm. This appears tantamount to expressing an opinion that the stage of the whoop has its special duration, as the stages of other epidemic diseases have; but, however this may be, this time is, in reality, only mentioned on account of the periods at which the patients chiefly under observation were seen.

Of the influences referred to, I have found the most frequent to be thread-worms, improper diet, and unwholesome air. Sometimes it is impaired digestion, produced by frequent administration of emetics, or by the vomiting accompanying that transient congestion of the brain which occurs during a "hard fit." Enlarged bronchial, mesenteric, and cervical glands, teething, persistent constipation, full meals, rapid alternations of temperature, mental irritation, or the foolish system of hitting children on the back or jerking them violently in the arms during an attack, all tend to keep up irritation.

Counter-irritants applied to the spine I believe to be most useful; and, for obvious reasons, I always order that nothing hard or solid shall be swallowed.

Lastly, I do not think that too great stress can be laid on the importance of strictly following carefully-enjoined hygienic rules. It is from the attention paid to these apparent trifles that undoubtedly arises the boasted successful issue in cases of whooping-cough treated under that singularly blasphemous system of quackery introduced by Hahnemann. I think this is the only expletive applicable to those audacious assertions enunciated by him in the "Organon," and which I suppose his followers endorse. I know no other word that properly designates the arrogation to remedies proved to be inert of effects entirely produced by the unimpeded operation of the beneficent laws of the Creator. Had the credit been wrested from a mortal, there would long ago have been a great outcry against such impudent assumption.

"Should each blasphemer, then, escape the rod,
Because the insult 's not to man but God?"—POPE.

I remain, Sir, your obedient servant,

HENRY G. WRIGHT, M.D., M.R.C.P.,

Somerset-street, Portman-square, May, 1861.

Physician to the Samaritan Hospital
for Women and Children.

"WHAT IS PROOF OF LIVE-BIRTH?"

To the Editor of THE LANCET.

SIR,—In your remarks on the case *Brock v. Kellock*, printed in the number of your journal for the 11th inst., in which I was consulted, referring to Vice-Chancellor Stuart's judgment, you say, "this decision is of importance, inasmuch as it will go far to form the law, which has hitherto been unsettled as to the point at issue."

I quite agree with you that it is most desirable, and indeed necessary, that some definite rule should be laid down in English law as to what constitutes a live-birth; because until that is done, whenever such a question may hereafter come before the Court, the same unsatisfactory practice must in each case be resorted to, of applying to living authorities for their opinions on the subject, and the same conflicting medical testimony that has hitherto brought such scandal upon our profession must therefore be expected.

But I am not prepared to acknowledge that a lawyer, however astute or intimately versed in legal doctrines, is the best of all persons to determine a physiological point on which such a difference of opinion exists as on that under consideration. I have no hesitation in declaring my own, that Sir J. Stuart's dictum is founded in error, and for the following reasons.

I think, with the late Dr. Denman and Fodéré, that a great distinction should be drawn between intra-uterine and extra-uterine life—between that life which is preserved to the fœtus by its parent's intervention, and that in which the child carries on an independent existence of its own. In common parlance, life is considered to begin at birth; and a man's age is reckoned not from the time at which uterine life commenced, but from the time when he emerged into light. And this is quite proper even in a physiological point of view. As soon as a child is born, if living, it enters on a new phase of existence; organs hitherto dormant are called into activity; and functions necessary for the continuance of vitality, heretofore performed for it by its mother, are suddenly transferred to its own person, to be henceforth discharged by itself through an independent agency. The expansion and energetic action of organs previously collapsed and quiescent, and the development of functions previously unknown, constitute a state of being so different from that which has just terminated as to warrant us in considering the individual to have commenced the enjoyment of a *new and fresh* life; for although the infant after its birth continues to be absolutely the same body as the fœtus while in utero, yet the changes which take place on the establishment of respiration are sufficient to stamp a decisive mark on the two conditions of existence as being perfectly distinct and separate from each other. The commencement of the action of breathing is universally regarded as heralding the entrance into life; and no medical practitioner would hesitate to certify as still-born a child that had never breathed, unless there were proofs present of its having been accidentally smothered before his arrival.

A very curious and interesting case bearing on this subject came under my notice some years ago. A servant, sleeping in a room alone, was taken in labour during the night. She placed herself on a slop-pail, which stood in her chamber, quite full of the house-slops of the previous day. The child was expelled head foremost into the fluid. She raised herself suddenly, and broke the funis close to the placenta, leaving the placenta itself in utero. Her mistress, finding her in the morning unable to rise, called the family surgeon to see her. He discovered the child, and sent for me. She stoutly denied that the child was hers; but, on examining the abdomen, I felt convinced that the placenta was still in utero. I found it adherent there, and removed it by the hand. Of course an inquest was held on the child's body. No air had entered the lungs; indeed, from the circumstances, that was impossible; but in the stomach we found nearly an ounce of exactly the same kind of dirty fluid in which the body was immersed. The late Mr. Baker, the Coroner for the district, ruled that the child was not born alive, because it had never breathed, and a verdict of still-birth was accordingly returned; this, too, in the face of the strongest proof that it was born alive, else none of the fluid which surrounded it could have passed into its stomach. If a dead body be thrown into water, and the glottis be open, some of the water may pass into the trachea and bronchi, and even into the air-cells of the lungs; because the irritability of the glottis being destroyed, the water may gravitate through the tube, which is kept distended by the cartilaginous rings. But the case is different with the œsophagus; the sides of that canal are close together, and an effort at

swallowing is necessary for fluid to pass into the stomach. This effort must be made during life; and therefore, in the case under consideration, no doubt the fluid had been swallowed under some futile attempts to breathe. Notwithstanding that all this was explained to Mr. Baker, he directed the above verdict, because, according to his dictum, the law looks upon any child that has not breathed as still-born.

My objection to Vice-Chancellor Stuart's dogma is, not that foetal life may not be continued for some time after expulsion, but that such a state of being is nothing more than the remains of a much lower degree of vitality than is attained after respiration is established; and, for myself, I cannot help thinking that the Legislature, in passing the statute of "tenant by courtesy," intended by the words "born alive," not that there should merely be evidence of the continuance of foetal existence, but that the infant should have assumed for itself that new state of being which is universally regarded, in the ordinary acceptance of the term, as the "commencement of life."

I am, Sir, your obedient servant,
Portman-square, May, 1861. FRANCIS H. RAMSBOTHAM, M.D.

To the Editor of THE LANCET.

SIR,—Although retired from the active duties of the profession, I still feel great interest in everything which concerns obstetrics. I have for many years laboured to raise the value of embryonic and foetal life, and to depreciate as far as possible the *murderous operation of craniotomy* in the estimation of those who practise midwifery, (*vide* "The Value of Embryonic and Foetal Life, Legally, Socially, and Obstetrically Considered," "British Record of Obstetric Medicine," &c., 1848; also several papers in *Provincial Medical and Surgical Journal*.)

On this account I read with great satisfaction (as an effort in the right direction) the excellent remarks of Dr. Tyler Smith "On the Abolition of Craniotomy from Obstetric Practice in all Cases where the Foetus is Living and Viable." ("Transactions of the Obstetrical Society," vol. i.) I also read with pleasure, and felt the truth and justness of the opinions of Mr. Freeman and Dr. Tyler Smith, "that pulsation of the heart is evidence of live-birth," (delivered before Vice-Chancellor Stuart in the case of "Brock v. Kellock.") A different opinion was, however, expressed by Dr. Robert Lee, who maintained that respiratory action is necessary to constitute life; but the Vice-Chancellor wisely decided otherwise.

Dr. Robert Lee asks (THE LANCET, May 18th, p. 493), "If a child is born, but neither moves nor breathes, and shows no other sign of life except 'a slight pulsation at the cord' (funis), ought I to consider such a child to be born alive?" &c. If pulsation exists in the funis, there is strong presumptive evidence, more especially if it is felt at or near to the umbilicus, that the child possesses a greater or less degree of vitality; for it is physiologically true that if the child dies, the placental circulation soon ceases, and with it almost immediately that of the funis, first nearest the child's body, but not long after in its entire length. To entertain a contrary opinion would lead to a most disastrous practice, and would consign to the grave infants which might, and indeed would, be saved if (under conviction of suspended animation) resuscitating measures were energetically and perseveringly used.

With respect to the question of "what is proof of live-birth?" physiology can alone decide it; it belongs to medicine, and not to law. There are gross inconsistencies in reference to foetal and infantile life on the statute books which ought to be expunged, and more enlightened views recorded to justly guide legal decisions, more consonant with common sense, and based on a knowledge of the physiological laws of life both before and after birth.

I shall not further extend my remarks at the present time, as your valuable leading article last week upon this subject makes it quite unnecessary for me to do so; but I do hope that the time has now arrived when several moral, social, and obstetric questions in relation to the value of embryonic, foetal, and infantile life will receive a greater consideration from the members of our profession, which may lead the Legislature to adopt opinions based on science and humanity.

I am, Sir, your obedient servant,
THOMAS RADFORD, M.D.

Higher Broughton, Manchester, May, 1861.

To the Editor of THE LANCET.

SIR,—If your readers were interested in your report of the case of "Brock v. Kellock" in THE LANCET of the 11th inst., and your subsequent comments thereon, possibly the annexed

extract from my note-book, in relation to a case bearing upon the subject which occurred in my practice, and which excited some doubt in my mind at the time, may not be devoid of interest. I may add that the district registrar, on the strength of my opinion, recorded the birth (i. e., the live-birth) and the death of the child, neither of which he would or ought to have done had the child been still-born.

"April 13th, 1858.—Mrs. T. S.—; primipara. Presentation natural; labour severe and difficult—duration thirteen hours. Child, a boy, moribund; no instruments used,* but from the strong pains and detention in and passage through a somewhat straitened pelvis, the foetal head was greatly contused, the vertex tumefied, the forehead compressed, and the nucha abraded. Respiration never occurred, although the heart was felt and seen beating for a quarter of an hour; pupils widely dilated, and one eye open, but dull. Meconium had been discharged in utero, and oozed from the vagina in large quantities after the birth of the child.

"Could it be said to be born alive? Vitality certainly existed, although respiration had not commenced—not a sigh or gasp ever witnessed. Perhaps dead (still-born), according to vulgar acceptance and the regulations of the Registrar-General, although physiologically and really alive at birth.

"The apoplectic state of the child, caused by the injuries it had sustained in its birth, rendered all attempts made to induce respiration, by the postural method and other means, hopeless and unavailing. All pulsation ceased in less than half an hour."

I have attended the same female twice subsequently, and on each occasion she has given birth to a living child.

I am, Sir, yours &c.,
Stanhope, May, 1861. GEO. ARNISON, L.R.C.S. & P. Edin.

FRUITLESS SUCKING AND IDIOCY.

To the Editor of THE LANCET.

SIR,—Your correspondent, Dr. Richardson, has fallen into an error which I find is common to many who have read the abstract of my paper "On a Preventable Cause of Idiocy," &c.,—namely, a supposition that the substance of it was to attribute idiocy to "sucking the thumb." Now it so happened that "sucking the thumb" was not once mentioned. The error was assumed by Dr. Down, who rose first to speak to the paper. I am anxious to correct this erroneous impression by assuring Dr. Richardson that by fruitless sucking I do not mean "sucking the thumb." Fruitless sucking is a genus of which sucking the thumb is a species. I have fully explained what I mean by fruitless sucking in the work I have published on the subject, to which allusion was made in the paper; and I do not hold myself responsible for any other interpretation of it than that I have given.

The discovery I claim to have made, and which I am anxious to have recognised by the profession, is, that fruitless sucking is the principal cause of diarrhoea in infants.

The object of my communication to the Medico Chirurgical Society was to attract attention to this subject, by pointing out that the condition of idiocy bore evidence of the truth of my views, by its being stamped with the proofs of long-continued, retained habits of fruitless sucking in the manner I have explained.

I have not said that idiocy resulted *directly* from fruitless sucking, but that fruitless sucking causes thinning and softening of the stomach and intestines, of which process the frequent and green stools are the evidence. From this impaired condition of the *prima via* an imperfect growth and nutrition of the tissues of the body obviously results. And this is shown in the "pathological condition of the brain and the various scrofulous manifestations" which Dr. Guggenbühl has observed "to be associated with idiocy, and to depend upon some *undiscovered cause* operating in early life."

Two centuries ago Dr. Sydenham wrote that the convulsions of infancy resulted from diarrhoea, and I cannot see that he attributed them to teething. His words are—"Epilepsia vel primo mense aggreditur a frequentibus nimis alvi dejectionis, vel circa dentitionis tempus," &c.

Idiocy appears to be a state to which an unfortunate child is reduced who has suffered severely with diarrhoea in infancy, and had in consequence either a severe attack of convulsive disorder, or, what is perhaps more usual, a frequent recurrence of it, and has been unfortunate enough to survive its affliction.

Mr. Wilde, in his work on the "Institutions of Austria,"

* Forceps sent for, but delivery effected shortly before the messenger's return. Catheterism required afterwards.