change so far as the lymphocytes are concerned. The figures for the normal animals are taken from Eyre's Bacteriological Technique (second edition, p. 374), and represent the average of a large number of counts. Our own observations on normal animals agree with these figures within narrow limits.

Similarity with Action of X Rays and Radium.

This condition of the lymphoid tissue is practically identical with that produced by exposure to X rays and radium. These agents, if given in appropriate dosage, not only have the same effect as regards the lymphoid tissue, but they also produce the same general effect on the animals—they lose weight and die in a state of emaciation. Incidentally, it may be recalled that in this condition there are also degenerative changes in the semiferous tubules of the testis similar to those observed in avitaminosis.

Why two such apparently dissimilar causes should produce the same effects is a problem which we propose to investigate further. It is a remarkable fact that the specific atrophy of lymphoid tissue, whether produced by exposure to radiations or resulting from the absence of vitamins from the diet, should be associated with such a profound general effect on the nutrition of the animal. This fact indicates that lymphoid tissue fulfils a more important function in connexion with the nutrition of the animal than is generally recognised, and that the effect produced on the general nutritive condition of the animal by these different agencies may be due to their selective action

Clinical Notes :

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A NOTE ON

ARTIFICIAL RESPIRATION IN THE NEW-BORN.

BY W. OSBORNE GREENWOOD, M.D. LEEDS,
B.S. LOND.

(From the Acomb Nursing Home, Harrogate.)

THE method of artificial respiration described below has proved, in my experience, more certain and effective than any of the methods now in vogue. I was led to investigate it by noting that a new-born infant who had inspired liquor amnii and was held head downwards emitted a sigh. This I supposed to be due to the pressure of the abdominal viscera on the diaphragm. As this is equivalent to expiration, I concluded that to hold the child in the reverse position would initiate inspiration.

To use the method the infant should be held in the following way:—

The back of its neck lies on the palmar surface of the operator's left hand, the occiput being supported in the hollow between the thumb and forefinger, so that the

Three Positions of the Infant in the Method of Artificial Respiration described by Dr. Greenwood.

First position, for movement downwards to imitate inspiration.

Second position, for movement downwards to imitate expiration.

Rest position between movements.

on the lymphoid tissue. This suggestion finds confirmation in the following facts. It is known⁵ that lymphocytes are concerned in the absorption and assimilation of fat, and experimental evidence has been presented⁶ to show that the assimilation of protein from the intestinal canal is brought about partly by the agency of leucocytes. In certain marasmic conditions in children not due to interference with the food-supply there is an atrophy of the thymus and of the Peyer's patches, and no other lesion has so far been found to account for the condition.⁷ In inanition the spleen is stated to be the organ showing the greatest atrophy.⁸ This and an almost complete disappearance of the thymus has also been reported recently⁹ as occurring in pigeons both in inanition and in experimental beri-beri. A systematic examination of the lymphoid organs generally in these various conditions does not appear to have been made.

(Continued at foot of next column.)

thumb and fingers grasp the mastoids. The right hand holds both ankles of the infant firmly from behind, so that the ulnar side is at the calves, the radial side at the ankles. The infant is held nearly vertical, say at an angle of 15°, and is then allowed to move quickly by its own weight downwards, feet first, about 2 feet. The abdominal viscera move down, the diaphragm is depressed and inspiration is at once initiated. The infant is now lifted, feet first, upwards and to the right of the operator and is therefore head downwards

(Continued from previous column.)

References.—1. McCarrison, R.: Indian Jour. Med. Research, 1919, vii., p. 188. 2. Vincent and Hollenberg: Proc. Physiol. Soc., 1920, p. 69; Jour. of Physiol., 1921, liv. 3. Emmett and Luros: Jour. Biol. Chem., 1919, xxxviii., p. 441. 4. Lumière: Annales de l'Inst. Pasteur, 1921, xxxv., p. 102. 5. Schäfer: Text-book of Microscopic Anatomy, 1912, p. 541. 6. Cramer: Jour. of Physiol., 1908, xxxvii., p. 146; Cramer and Pringle: Ibid., p. 158. 7. Patterson, D. H.: Private communication. 8. Weiske: Z. Physiol. Chemie, 1896, xxii., p. 485; see also Schäfer: Text-book of Physiology, 1898, vol. i., p. 890. 9. Findlay: Jour. of Path. and Bact. 1921, xxiv., p. 175.

at an angle of 15° to the vertical. It is then moved quickly downwards, head first, about 2 feet. The abdominal contents fall against the diaphragm which is now pushed upwards (relatively to the child) and fully arched, and expiration is completed. The series of movements should be repeated some fifteen times a minute and the first attempt will often elicit a sigh if not a more pronounced response. Needless to say, any semblance of violence must be avoided.

As compared with Schultze's method it achieves exactly the same object—i.e., the abdominal viscera are made to arch and flatten the diaphragm alternately and to stimulate the heart as massage would do. Advantages over it are: As the infant is held firmly at each pole he is not so liable to slip; since the range of movement is not as great the cooling of the body surface must be less; it is not as violent; the gentleness of the movements are entirely under the control of the operator. Byrd's method and Marshall Hall's method consist in alternately flexing and extending the infant's body to the full extent: the former actively by holding both poles, then flexing and extending the spine; the latter passively by holding the infant horizontally on the palm of one hand, ventral surface downwards, then on the palm of the other hand, dorsal surface down, the head and lower limbs accomplishing flexion and extension by their own weights. Both methods are excellent for the milder grades of respiratory inhibition, but not as effective as the above for the severer ones.

Harrogate.

A CASE OF ACETANILIDE POISONING; RECOVERY.

BY HASSAN EL ARCULLI, M.B. LIVERP.,
M.R.C.S., D.P.H.

A GIRL, aged 2 years, was brought to me on Sept. 4th, 1919, by her mother with the history of having ingested about 30 anti-influenza tablets some two hours before. It appeared that while the mother was engaged in some household duty the girl and her brother, aged 3 years, got hold of a box of these tablets. The boy sucked the sugar coating, and what remained was given to the girl, who swallowed it.

On examination the child appeared prostrated and somewhat cyanosed, especially around the mouth. Pulse feeble and irregular, its rate being 120; respirations 20. There was profuse sweating; temperature was 97° F. in the axilla. A provisional diagnosis of poisoning by some coal-tar derivative was made. An emetic of mustard and water was given and a saline purgative administered; these acted well, and the child when seen four hours later appeared less blue. The mother was instructed to keep her near a fire, and liq. strychninæ was given— $\frac{1}{2}$ i. every two hours.

On the 7th the mother said that the girl was very irritable the night before and was inclined to arch her back. She reported that the cyanosis came in spasms; sometimes the colour was quite good, while at other times the face would be blue; the periods of cyanosis varied in duration from a few minutes to an hour. The knee-jerks were +.

Professor R. J. M. Buchanan was called into consultation and he gave a hopeful prognosis.

Acting on his advice the strychnine was temporarily stopped and brandy-and-soda given in its place. A couple of days later the child seemed quite normal between the spasms of cyanosis. When examined during an attack the heart sounds were found to be weak but regular; respiration was also regular. Strychnine was again exhibited, $\frac{1}{2}$ i. every four hours.

Meanwhile it had been ascertained from the manufacturing chemists that the tablets were made from: acetanilide, gr. i.; quinine sulphas, gr. ss; podophyllin, gr. $\frac{1}{8}$; camphor, gr. $\frac{1}{4}$.

On Sept. 11th bronchitis developed, and a measly rash appeared. The temperature, which had become normal on the day following the taking of the poison, rose to 101° F., and it was a question whether the rash was due to measles or to the effects of the acetanilide. It was, however, thought wiser to err on the safe side, so the child was isolated and she got over the complication in a few days. It was quite seven weeks before the cyanosis and sweating disappeared altogether. At no time was there any sign of methæmoglobinuria.

Apart from the treatment applied, the result may have been due to the presence of the other ingredients in the tablets, or the child may not have swallowed the large number alleged, although on this point the mother is quite firm in her belief.

Liverpool.

A CASE OF ABERRANT HERPES.

BY G. DE BEC TURTLE, M.D. DURH., M.R.C.P. LOND.

THE differential diagnosis between varicella and herpes occasionally presents difficulty, and the following case appears of interest in this connexion:—

A gentleman, aged 71, consulted me for pain in the back and a skin eruption which had only been noticed a few hours. On examination there was a well-marked patch of herpes zoster on the right buttock and in addition a few vesicles were distributed over the body generally. There was no constitutional disturbance of any kind. On the following day there were four patches of herpes extending from the right buttock to the ankle, down the back of the thigh and knee. He was also covered with a distinct vesicular eruption very closely resembling that of varicella, several of the vesicles being umbilicated. For the sake of interest the vesicles were counted: they numbered 266 and

were distributed as follows: 12 over the face and scalp, 108 on the trunk anteriorly, 90 on the trunk posteriorly, 14 on the right arm, 11 on the left arm, 12 on the right leg, and 19 on the left leg. There was none apparent on any mucous membrane.

The diagnosis rested between an attack of varicella occurring at the same time as the outbreak of herpes zoster in the leg and generalised or aberrant herpes, which I think the condition undoubtedly was. This view was shared by Dr. Graham Little, who saw the case in consultation with me. The condition cleared up quite quickly in a few days, simultaneously with the original patch of herpes zoster. There was no evidence of any case of varicella either before or after in the patient's house.

Cambridge-terrace, Hyde Park, W.

PRESENTATION TO A MEDICAL MAN.—On April 26th a presentation was made by the staff of King Edward's Building of the Post Office to Dr. S. B. Pennington on his transfer from the E.C. District Office to the Western District Office. Dr. Pennington was medical officer for the staff at King Edward's Building for seven years, and during that time earned the esteem of all grades of the manipulative staff for his considerate, sympathetic, and courteous treatment. The presentation consisted of a suit case and a cheque. The medical officers present included Dr. B. G. Connelly, Dr. A. Benson, Dr. H. Palmer, and Dr. H. H. Bashford.