milk, was immediately seized with convulsive movements of the limbs, a sensation of choking, and such weakness that she had to be carried to her bed. Five or ten minutes later she became delirious, and in less than half-an-hour totally unconscious, in which state she remained for about fifteen minutes. Convulsions continued after the return of consci-Ousness for at least half-an-hour, the choking sensation still longer, while the headache and pain in the chest increased. An emetic of sulphate of zinc gave some relief, but she remained prostrate all the day, and did not regain her strength for a week. Her husband, who took the milk only with his coffee, felt merely faint and giddy, and was compelled to lie down for some time. Tyrotoxine was detected in the milk. Dr. Camman, in the New York Medical Journal, reports a similar illness which attacked 33 children in a school of 150, presumably from the same cause, though analysis of the milk gave a negative result, perhaps from the particular milk not having been examined.

We may here remark that our London patients who judge of the "richness" of milk by the rapidity with which the cream rises and its depth, frequently tell us that the milk which at our recommendation they have got from the Aylesbury, Welford's, the Belgravia, or other company, is not so rich and good as that they previously had from some neighbouring dairy; the fact being that the latter had not been chilled and early began to undergo decomposition: whereas chilled milk remains quite unchanged for at least twenty-four hours, and the cream rises very slowly, though a "separator" would in a few minutes show that the percentage of fat was Quite as great. In fact, the properly-chilled country milk sent round in the morning, which will keep good till the evening in a suitable place, was milked in Wiltshire or Derbyshire at four or five p.m. on the previous day; whereas London unchilled milk would by that time have become totally unfit for use; and when brewer's grains form a part of the food of the cows, as they do largely in London and suburban dairies, the milk will often spoil within a few hours. Grains and ensilage are, we may add, strictly forbidden in the contracts of the great dairy and condensed milk companies. These are among the "things that everyone ought to

## RECENT RESEARCH.

INJURY TO THE PHRENIC NERVE.

Some time ago we noticed a case reported by Dr. Coull Mackenzie, Health Officer, Calcutta, of sudden death attributed to rupture of the phrenic nerve; this being the only injury discovered on a post mortem examination. It was then observed that little was really known with regard to injuries of the phrenic nerve, and we felt rather disposed to attribute the sudden death to shock than to the rupture of the one phrenic nerve, as breathing is not carried on entirely by the diaphragm. Quite recently, Dr. H. A. Hare and Dr. E. Martin. Martin, Professors in the Pennsylvania University, have in-Vestigated the effect of injuries of the phrenic nerve. It has usually been baught that the chief function of the phrenic nerve is to innervate the diaphragm, which is, indeed, the fact. But it has also been taught that, if the phrenic nerves are in any way cut or broken, the diaphragm becomes but a relaxed and flabby piece of muscle, and thereby is rendered unable to fulfil its function. This also may be accepted; but it does not follow that death must result, because the diaphragm does not act. Dr. Hare and Dr. Martin correctly observe: "In the human being, whose respiratory movements are largely thoracic, logical reasoning brings us to the conclusion that injuries to the phrenic nerve should not be certainly fatal." The experimentalists found that, in some of the higher animals whose breathing is largely thoracic, no untoward effects followed phrenic section. It would, there-

fore, appear that the cause of death in the Calcutta case could not have been injury to the phrenic nerve, although such conclusion was justified by the teaching of the schools. It may be mentioned that Dr. Hare and Dr. Martin say that the diaphragm plays a much more important part in respiration in the male than in the female.

## DIETETICS.

MEAT DIET.

We referred to the subject of meat diet in the "Retrospect" of December 14th last, and in corroboration of what was then advanced regarding the possibility of persons living on meat diet alone, we note the following: Dr. Good, Professor of Clinical Medicine, Manitoba Medical College, states (Lancet, January 4th) that in the Mackenzie River region persons in the employ of the Hudson's Bay Company habitually live on meat alone, or on fish alone. Those living on fish alone enjoy rather the better health. But all are singularly free from constipation, and from digestive troubles. No vegetables of any kind are used. They are allowed one pound of flour in the year, which is consumed at Christmas in the shape of puddings. The life led by these men is one of great activity. Two are seventy years old, and in the enjoyment of a green old age. It is also remarked by Dr. Good that scurvy is quite unknown, although prevalent at another station named "York Factory." Here the diet consists largely of geese, the birds appearing in the spring, when they are shot and salted for winter use. At this station, the majority being clerks, the same active life is not led, which may be another element in the development of scurvy. Quite sufficient has now been advanced on this subject to show the necessity for a re-investigation of the accepted opinions regarding human food. It appears that the views promulgated in text books that man cannot live on a meat diet alone, because the human digestive organs are unequal to the task of digesting sufficient meat, must now be taken cum grano salis.

## THERAPEUTICS.

ACETANILIDE.

"The treatment of enteric fever by acetanilide" is the title of a paper by Dr. W. Peirce, of the Coast Hospital, Sydney (Practitioner, January, 1890). Dr. Peirce remarks that economy of vital energy appears to be the broad basis on which the treatment of enteric fever should rest . . . . to attain this, rest and reduction of heat are indispensable . . . . in acetanilide (which, by-the-bye, is a synonym for antifebrin) we possess a medicine which, by influencing metabolism, enables us to reduce temperature with certainty, rapidity, and safety. . . . the power of the nervous system being damaged under the influence of the febrile poison, excessive heat becomes generated. . . . acetanilide, by restoring this deteriorated nerve power, prevents high temperature, and, moreover, induces perspiration. Now we believe that too much importance has been attached to the reduction of temperature in fevers. Admitting that high temperature alone may be fatal, on the other hand a certain amount of high temperature must occur, for with it the metabolism is associated by which materies morbi is eliminated. Dr. Peirce seemsto recognize this, for he says if the medicine is given so frequently as to keep temperature at a normal rate, very undesirable condition is apt to be induced, needing prolonged stimulation and the application of external heat. also mentions that the long duration of some of his cases seems to indicate that the suppression of temperature retarded a salutary elimination by heat of the febrile materies morbi. "It may be that sometimes the disease is increased in duration; its intensity, however, being toned down and bene-