

battleship, but exact comparison is impossible in the absence of information regarding the culture-media used and other details of method. The results would gain in interest if the carbonic acid content of the air at the time of examination had been given as a guide to the efficiency of ventilation, and a statement made of the number of men in the compartment and the cubic space per head.

THE CASE MORTALITY OF INFECTIOUS DISEASES.

THE report of the Metropolitan Asylums Board for the year 1916—the nineteenth year of issue—contains, among other statistical matter, an instructive summary of the average death-rates from the common infections in the Board's hospitals during successive quinquennial periods. Beginning with 1872-6, the mortality per 100 cases of scarlet fever sank period by period from 12·4 to 2·5 in 1907-11, the individual figures for the last five years being 1·6, 1·3, 1·4, 2·0, and 1·8. The similar even fall for diphtheria was from 33·6 in 1887-91 to 8·8 in 1907-11, with 6·2, 6·2, 7·9, 7·9, 6·8 as the individual figures for the last five years. Enteric fever started in 1872-6 with a case mortality of 18·6, which fell to 14·6 in 1907-11, and is only 13·1 in 1916. In the experience, therefore, of the Metropolitan Asylums Board scarlet fever is only one-eighth as fatal as it used to be, diphtheria one-fifth, and typhoid two-thirds. In striking contrast with these figures is the high level and relative constancy of the death-rate from measles and whooping-cough, 8·9 and 9·9 respectively for 1916, although it should be remembered that these have only been under observation for about ten years. Scarlet fever may be said to be well under control, diphtheria is becoming so with earlier diagnosis and antitoxic treatment; but the problems of measles and whooping-cough await solution.

THE FACT OF DEATH.

WE should have been surprised if the annotation in our issue of August 18th on death certification had not resulted in a communication from the Association for the Prevention of Premature Burial. With the medical man's omission to see the corpse Mr. J. Brindley James associates a bevy of grisly possibilities: murders may go unnoticed, insurance societies be defrauded, and unfortunate persons be buried while still alive. Without necessarily sharing these gloomy forebodings we agree—and stated so in the annotation—to the desirability of a medical man seeing any person with respect to whom death has been alleged before signing a certificate. The occurrence of death will not, except in the rarest instances, require verification by a medical man; no attendant, whether nurse or relative, at the bed-side of a sick person has any doubt about the mysterious happening when the life of the person ceases to be. No hospital sister sends for the resident medical officer to confirm the fact. The fact of death is as clear and indisputable as the fact of life. More difficulty may, of course, arise where no witness was present at the time when death was assumed. Our Paris Correspondent writes of tests applicable on the field of battle and of a new and safe conjunctival reaction. The tests for the verification of death given by the Association may easily be further elaborated and might then become so delicate as to detect local life or the persistence of signs of life in the various tissues after general death has occurred. Mr. Shiro Tashiro, who is instructor in physiological chemistry in the University of

Chicago, has touched upon this subject in dealing with the chemical signs of life in a recent monograph published by the University of Chicago Press. Mr. Tashiro states that of all the signs of living processes one of the most universal is irritability, the inherent power of the living to react against a stimulation. A necessary condition for this irritability of the tissues is metabolic activity, but this in itself is not evidence of vitality. Metabolic response to an injury is the crucial test. If a tissue is alive mechanical crushing will produce a metabolic response; if it is not alive there is no response. If of two seeds or two similar pieces of animal tissue the crushed portion gives off more carbon dioxide than the other the seed or tissue is alive. By means of his biometer Mr. Tashiro claims to be able to make this distinction within a few minutes, or at all events within an hour or two. His method is one of extreme delicacy and would have been useful in exploding the myth of millennium-old living corn in mummy cases.

THE DIETETICS OF SOUND WINE.

SINCE the recent death of Professor Landouzy there has appeared in the *Journal de Médecine de Bordeaux* a letter from him addressed privately to a colleague who had written in the first year of the war asking advice on the attitude that should be taken by medical men to the public discussion concerning the use of wine by the troops. The Academy of Medicine was then about to issue a resolution to the effect that the fighting men should receive daily a ration of wine, but high authorities and public opinion alike were disturbed by fears of alcoholism which were set forth in a number of speeches and letters, and in diligently compiled statistics. Landouzy in his letter stated that he had been suspect on account of his consistent refusal to march under the banner of the abstainers. "Abstention is everywhere, particularly under the sky of France," he wrote, "a scientific, economic, and historical heresy." He deprecated the confusion between the "alcoholism" of the northern countries of Europe and the metabolic effect of a quantum of French wine supplied pure and unadulterated, adding his opinion that "natural wine ought to be given its place in the alimentary hygienic and economic ration; the ration of wine must be measured out in doses in the same way that albumin, carbohydrates, sugar, and fats are measured." To Landouzy the best way of teaching the nation to beware of alcoholism was to instruct the children in rational alimentation. He thought that every Frenchman could with advantage drink daily with his meals a litre of natural wine, which at the price of 30 or 40 centimes would supply him with 500 calories daily at a price seven times less than that of the same number of calories from the butcher. This would be of benefit to the Frenchman individually and to the country at large commercially, although he deprecated too close a connexion between commercialism and wine production. Through industrialism the pure-wine merchant was too often replaced by the "liquoriste" and the vendor of "vin maquillé." The correspondence thus started continued for some time, with the result that the Academy of Medicine passed unanimously their resolution approving of the introduction into the regulation ration of the soldier of the same quantity of natural wine as sanctioned in the Navy, with the precaution that where the authorities provided wine for the soldier he should not be able to obtain it elsewhere.