to be injurious or dangerous to health shall be deemed to be a nuisance; or against the employee under Section 58 of the same Act and the amending Act of 1907 for engaging in an occupation connected with food, provided he knew that he was, in fact, suffering from diphtheria and did not take proper precautions. But a local authority proposing to go to court under any of the sections cited would probably be expected to prove, not merely negligence on the part of those concerned, but deliberate suppression of the facts, and also to show that its own officers, by visit, inquiry, and otherwise, had exercised due diligence to keep in touch with the progress of events at the bakery.

THE ACTION OF UROTROPINE.

DR. ROBERT ANDERSON (Erdington, Birmingham) writes: I would ask two questions with regard to the action of urotropine. (1) How can it act as an antiseptic in one part of the body only in an acid medium and in another in an alkaline one? (2) If its action in the first instance depends on its decomposition by an acid, how does it escape decomposition by the hydrochloric acid of the stomach? In the BRITISH MEDICAL JOURNAL, October 16th, 1926, Dr. Hurst states that urotropine has been proved to act as an antiseptic in alkaline bile. It is not generally known that urotropine is a cause of dermatitis in rubber workers. Such cases nearly always occur during hot weather, when the workers perspire freely. The acids of the perspiration are supposed to decompose the urotropine.

*** The action of urotropine is rather a puzzle at present. It is a definitely ascertained chemical fact that urotropine only undergoes decomposition into formaldehyde in an acid medium; for example, only 1 per cent. is split up into formaldehyde in an hour in a feebly acid solution (pH^6). At an acidity corresponding to that of the stomach contents (pH^2) about 30 per cent. of urotropine is split up in an hour. It is generally agreed that urotropine has no disinfectant action until it liberates formaldehyde. The action of urotropine in producing disinfection in an acid medium—for example, acid urine—is well established and understandable from the above facts. It is known, however, that the amount of action produced varies considerably in different persons, and this is believed to be due to the varying quantity of the dose administered which is split in the stomach contents. Any portion of the drug which was split up in the stomach contents would be rapidly neutralized by reaction with the neighbouring tissues. Pharmacologists have generally declined to believe that urotropine acts as a disinfectant in neutral or alkaline media, such as the bile or cerebro-spinal fluid. In recent years, however, evidence has accumulated that urotropine can act as a disinfectant in the bile. The evidence for this is strong, although perhaps not quite conclusive. The only explanation of this phenomenon that we have come across is that the bacteria living in alkaline media may produce small amounts of acid and so the immediate surroundings of each bacterium may be faintly acid. According to this theory urotropine would be split up when it met the bacteria, and the liberated formaldehyde would kill the bacteria. It is very difficult to prove or disprove this hypothesis, but it seems to be the only one at present that at all meets the facts.

EPIPHORA.

DR. A. C. BALFOUR (Aviemore, Inverness-shire) writes: In answer to Dr. A. T. Brand (JOURNAL, February 26th, p. 410) I understand that Parke, Davis and Co. only have one solution—that is, 1 in 1,000—and the directions given for 1 in 10,000 are 1 fluid drachm of solution of adrenaline chloride and 9 fluid drachms of physiological salt solution, so that the one drop in 16.6 oz. of water is not necessary for the correct dilution.

LETTERS, NOTES, ETC.

TREATMENT OF TETANUS BY INTRATHECAL INJECTION.

DR. M. ALLAN (Patricroft) writes: I read with much interest Dr. Bertram Muir's communication (JOURNAL, January 29th, p. 186) on the treatment of tetanus by intrathecal injection of antitoxin. As clinically and experimentally (as shown by Bruce) it can be demonstrated that intrathecal injections are of undoubted benefit, we need pay little attention to the failure of the laboratory to explain the fact. I have seen two cases of tetanus: one was in a carpenter who had received a lacerated wound by a flying splinter of wood to his right thenar eminence. He was treated by intramuscular injections, but death resulted three and a half days after admission to hospital. The other case was in a hide worker, the origin of the injection being in a septic wound of the left thumb. Profiting by my former experience, I gave on the first day 20,000 units intrathecally, together with a similar dose into the body of the vastus externus muscle. On the following day, under general anaesthesia, a similar dose was given, and thereafter the blood stream kept saturated with antitoxin by means of intramuscular injections. Recovery was rapid and uneventful. I do not agree with Dr. Muir that there was anything to be gained in his case by intrathecal injection at the anatomical site of the anterior horn cells of the spinal cord. Even when an early diagnosis is made the toxin has spread far and wide, and after the intrathecal injection I prefer to elevate the foot of the patient's bed and remove the pillow for two hours in order to flood the higher and more important centres with antitoxin.

THE DANGEROUS JUNKER.

DR. H. G. DODD (Hove), referring to Mr. W. J. Foster's condemnation of the use of valveless Junker's inhalers (JOURNAL, February 5th, p. 261), mentions a description by himself in the *British Journal of Anaesthesia* for October, 1926, of a modification of Junker's inhaler, in which the inlet tube is straight and extends nearly to the bottom of Buxton's bottle, its lower extremity being tipped with bone, as in the older models. A ball valve is fixed to the afferent tube outside the bottle, close to the attachment of the rubber tubing from the hand bellows, as suggested by Rigby. It is claimed that this modification, while being free from danger, is without certain disadvantages found in the Rigby type of inhaler.

FOG FLARES FOR MOTORISTS.

AS the result of experiments in the use of flares at road junctions during dense fogs, the Automobile Association has recently established a service of fog flares at some fifty roadside points. When a dangerous fog occurs, obscuring these road junctions, the patrols light the flares and keep them alight during the day, and, if necessary, after dark until ordinary traffic ceases. It is stated that this new service was much appreciated during the recent fogs.

THE IDEAL HOME EXHIBITION.

THE popular annual event, the *Daily Mail* Ideal Home Exhibition, was opened on Tuesday by the Hon. Mrs. Esmond Harmsworth. Within the walls of Olympia many new ideas for making the life of the housewife easy and healthy have been collected. It is possible that labour-saving devices bring with them their own troubles; on the path of progress the human mind does not always keep step with human invention, and the female domestic is quite capable of upsetting the calculations of the most ingenious inventor. Nevertheless, the completeness of equipment of the houses in the "Village of New Ideas" in the New Hall Extension, with its range of buildings from a Tudor manor house to a £850 cottage, will impress the visitor. An exhibition of healthy homes does not, of course, contain many objects that are purely medical. The Scholl Manufacturing Company exhibits some of its appliances for foot ailments, while the Dowsing Radiant Heat Company shows many methods of application of light and heat, including equipment for the dubious purpose of home use. The use of ultra-violet rays is illustrated by a working model of the new monkey house shown by the Zoological Society. The air is not directly heated, the monkeys being kept warm by sitting on floors heated by electric heaters. The roof of the house is entirely glazed with "Vitaglass," while in dull weather the supply of ultra-violet rays is kept up by powerful incandescent electric lamps made of "Lamplough" glass. The food products exhibited are numerous, and a section for Empire food and cookery is included. Concentrated foods, such as Horlick's Malted Milk, Wander's Ovaltine, and Glax-Ovo are available for the exhausted. The water drinker can investigate the advantages of the United Water Softeners Company's "Permutit"; soiled linen after washing can be wrung and mangled in the home by Messrs. Gamage's "Referee" wringer; water-closets can be cleaned and deodorized by the Lewbart Automatic Cleanser; and the housewife need only polish her stove once a year, according to the Mond Staffordshire Refining Company, if she uses "Melanoid."

COAT LININGS.

THE lining of coats, particularly of overcoats which may have to be taken on and off frequently during a round of visits, is a matter of some consequence to medical men. An advertisement of Courtaulds' linings appears this week. The artificial silk of which these materials are made has, as is well known, most of the qualities of silk, and has in particular the slippery surface desired in linings. Further particulars can be obtained from Messrs. Courtaulds Limited, Department 139 M, 16, St. Martin's-le-Grand, London, E.C.1.

SIR JAMES MACKENZIE'S LATER VIEWS ON THE NATURE OF CARDIAC ACTION: CORRECTION.

WE regret that, owing to a printer's error, the word "node" was substituted for "muscle" in line 29 of the report of the meeting of the James Mackenzie Institute on February 1st (BRITISH MEDICAL JOURNAL, February 19th, p. 333, col. 2). The sentence, which begins in line 25, should read as follows: "As regards the spread of the excitation wave through the auricle, the balance of evidence, having regard to direction and spread and rate of transmission, was greatly in favour of a spread through the auricular muscle." This was one of the main points of Dr. Orr's address.

VACANCIES.

NOTIFICATIONS of offices vacant in universities, medical colleges, and of vacant resident and other appointments at hospitals, will be found at pages 42, 43, 44, 45, 48, and 49 of our advertisement columns, and advertisements as to partnerships, assistantships, and locumtenencies at pages 45 and 47.

A short summary of vacant posts notified in the advertisement columns appears in the *Supplement* at page 83.