And now I have a proposition to make to the members of the Association. A commission is now sitting to take into consideration the disease amongst cattle; and I have no doubt that the inquiry will be efficiently carried out. But as we are threatened by a disease equally disastrous to ourselves and fellow-creatures, if not more so, and as the Government does not seem inclined to stir, will it be out of the province of the Association to take the matter up? I would suggest that a Committee of the Association be formed to gain all the information as to the nature and treatment of cholera; that all the different Branches should form Subcommittees, and meet to discuss the subject; and I appeal to all the members of our Association to aid in carrying out the details, which I leave to the Committee to advise.

ON THE HOT WATER AND MUSTARD HIP-BATH IN CHOLERA.

By Joseph Bullar, M.D., Physician to the Royal South Hants Infirmary.

That my early friend Dr. Risdon Bennett's experience, in his large field in 1849, confirmed the principles of the means I have advocated as worthy an immediate trial in the epidemic now visiting us, must have its due weight.

Many years have passed since we both were fully engaged, though at a distance, in endeavouring to combat a disease which has not appeared since (with one partial exception) with the same violence; and, therefore, old modes of treatment, if good and safe, require to be revived for those especially to whom this disease is a novelty, and are asking, What shall we do?

I am not desirous to draw wider inferences from a single case than that case warrants; and it warrants the inference, that this common but powerful remedy of a hip-bath of hot water at 110°, with mustard (say from one to two ounces to a gallon), for half an hour, if used early, when all the symptoms are indeed present, but have not continued so long as to produce that dead state of blood from which recovery is very rare, is calculated, by its powerful revulsion to the surface, to stop the fatal flow of the uncoloured blood through the mucous membrane of the stomach and intestines which is destroying life by a white hæmorrhage.

As the great principle we all acknowledge as practically proved in this country is, that the mortality is diminished by arresting the premonitory diarrhœa to which so many are subject when cholera is present —so looking on one stage further: to that condition in which indeed vomiting and purging of rice-water, and cramps, and collapse of the surface, and its commencing lividity and failing pulse, are present; but before the next stage, in which the patient lies leaden, cold, prostrate, exhausted, with hardly power to vomit or to purge, with a hardly perceptible or absent pulse. In the stage preceding this fatal collapse, the immediate application of as powerful a stimulus as we possess—great heat and mustard—to the abdomen itself may, as in the case I related, be the turning point of recovery.

This inference the single case warrants; and, in emergencies by the bedside, we more often get from one fact, a central fact, well observed by ourselves, a more useful lesson (as my old friend will admit) than from any statistics based on a multitude of so-called facts, often loosely tabulated by others or imperfectly remembered by ourselves.

But it is this premonitory period of the fatal stage in which there is hope from such a remedy. Let this stage pass, neglected most often, or as bad, treated by mere placebos, or even by strong remedies instantly rejected, and the disease may turn on to that condition in which there is no real stamen left, and when a powerful stimulus excites the living powers for a short time only, and then they gradually or quickly cease.

Dr. Bennett relates, however, that he had, by packing his patients in blankets wrung out of very hot water, covered with dry blankets, and with mustard plasters to the abdomen and legs, sixteen consecutive recoveries, many of which might have been in this apparently hopeless stage; but next came, as was to be expected, deaths under the same remedies. The reason was undoubtedly that, in the cases which recovered, there was still living power left to work upon.

The statement, that the secretion from the stomach and bowels (for they are one in pouring out this rice-water) is a virulent poison, is based on the evidence that those who drink water from wells into which these excreta have percolated are liable to the worst forms of the disease; and the theory of Dr. Snow and Dr. W. Budd (of Clifton), that these excreta moist and dry, drank or tasted, or wafted by the air—a theory so vigorously promulgated and reduced to practice by Dr. W. Budd—has certainly the merit of explaining the general facts of the transmission of the disease.

Most remarkably has this view, as far as drinking the poison, been confirmed by a mercantile man who was at Constantinople in the late epidemic, and who relates (see *Medical Times and Gazette*) that the clothes and linen of cholera patients were washed at a common fountain; and, owing to a broken pipe, this water flowed into the drinking-water, and a large and most fatal outbreak of cholera immediately occurred in a large district of those who used the fountain—a fact confirmatory of numbers of others of a like kind. This view, that the *materies morbi* exists in the secretions, has enough probability to guide us in action.

To isolate and describe this possible cholera-cell, and to make experiments to prove that it is a purgative, are necessary to convert this probable theory into an incontrovertible law. If this cholera-cell exist, our microscopists will discover it; and, if we can judge of our present investigators by the past, none are so likely as some of our own body to test this experimentally on themselves.

And this point, as to the excretions from the gastro-intestinal mucous membrane being a virulent poison, is of vast practical importance. Dr. W. Budd has drawn up, in his *Memoranda on Asiatic Cholera, its Mode of Spreading, and its Prevention*, a series of rules for destroying this poison. With the evidence we have, it is certainly a wise precaution to take means to prevent any of the inmates of the house where there is any case of cholera from drinking the same well-water, and to remove the pump-handle, if necessary; to give directions to the nurses and attendants not to eat anything without washing their hands; in the medical attendant himself, not to drink tea or coffee, or anything cooked in water, in the house; and, if exhaustion compel him to eat and drink there, to confine that to wine, soda-water, and biscuits, eaten after washing his hands—all which directions simply and rationally follow the fact that cholera excretions infiltrating into wells have produced cholera.

And this brings me to the duty medical men owe their families and those dependent on them.

Amongst the few deaths from Asiatic cholera which have already occurred in England, and in two places

only, two medical men have died—Dr. McNab, sen., of Epping, and Mr. Francis Cooper of Southampton. Not ten days before his fatal attack, Mr. Cooper said to me, "I feel a young man;" and though I saw what he did not feel—the marks of the wear and tear of life—yet he was a man of unusual vigour, and of that kind of organisation most fitted for strength and endurance. The next time I saw him was twelve hours after his attack, when he lay prostrate, leaden, sunk-eyed, nearly pulseless, hopeless, except so far as there is hope in cholera where there is life. He had had disordered bowels for a week; but he continued his official work as officer of health, together with his private practice. He worked from morning to night, and for the last day or two without appetite. Then came the suddenly violent purging and vomiting, and he never had reaction. He might have taken medicines for the premonitory diarrhœa, and I believe he did; but he went on with his work, and this made the mischief fatal. Had he, when his bowels were loose and his appetite failing, gone to bed, kept himself warm and quiet, and in the recumbent posture, so essential to the treatment of diarrhœa of an urgent kind, taking any suitable medicines he knew would suit him, there seems no reason why, with his fine organisation, he might not have lived. And I would most strongly urge those of us who, whilst attending cholera cases, may have any diarrhœa or griping pain in the bowels, to do themselves what they would advise others to do—not to take astringents and go on with their work, but to go to bed, to apply a hot bag to their bowels, to keep quiet in the recumbent position until they are well; and, if they find this warmth and rest, and such remedies as they are in the habit of using for diarrhœa, do not remove it, and wish to get to work again soon, to sit in a hot water hip-bath at 90°, to raise it gradually to 110°, having mixed half a pound of mustard in it; and remain in it half an hour. I have seen a patient, who has had diarrhœa for nine days, get out of such a bath free from pain, and with no return afterwards of either the nine days' sickness or the purging. If a man has any doubt as to whether he should act on the safe side, let him think of the change in a prosperous household when the hard worker is gone.

CASE OF SENILE GANGRENE: RECOVERY.

By J. Birchenall, Esq., Macclesfield.

Hannah Adamson, aged 72, of swarthy complexion and bilious-nervous temperament, had been for many years the subject of a chronic bronchial affection, together with periodic asthmatic paroxysms in cold and changeable weather. She had also suffered much at times from acute rheumatic pains of the costal and intercostal muscles, from occasional gastrodynia, and other forms of muscular rheumatism. Her appetite had been failing for some time, and her strength declining (though formerly very robust); her flesh was wasted and flabby; and there was extreme arcus senilis, owing to the semi-erect and prone posture she had been obliged to maintain when in bed. On June 29th, 1864, she complained that, during the two previous nights, she had experienced agonising pain in the left foot, which, on examination, I found to be gangrenous, a dusky subinflammatory blush occupying the entire metatarsal surface; the little toe black and insensible, with a patch of vesication stretching onwards from its root towards the cuboid bone. A spirit lotion was ordered to be applied with lint, under a covering of oil-silk; and a pill, containing half a grain of opium with a grain of camphor, to be taken every three hours; the strength to be supported with beef-tea and soups; and, as the pulse was small and feeble, with milk and brandy in the intervals.

On the following day, I found the patient more free from suffering, though the slightest motion of the toes caused intense pain. The pills were continued; and camphorated spirit and laudanum, in the proportion of one of the latter to two of the former, substituted for the spirit lotion. This treatment was persisted in for three or four days; but, at the expiration of this period, as the erysipelatous blush was becoming more dusky, and the cutis under the vesicated portion of the integument was assuming a greenish orange tinge, it occurred to me to brush over the parts with tincture of iodine, in the proportion of forty-eight grains to the ounce.

On the following day, I was pleased to find that the duskiness of the skin, as well as its sensitiveness, was diminished; and that the serous exudation of the vesicle was getting absorbed; although, in the interval, the second toe had put on a dark livid hue on its under surface. The iodine application was now repeated at each visit, for six successive days, to the toes affected, as well as to the foot (the embrocation with lint being still continued). At this period, the latter had assumed a comparatively healthy appearance, the inflammatory blush and pain having entirely disappeared. The second toe had regained its natural state. Sensibility had returned in the little toe; it had lost its shrivelled character; and the upper surface was changed from a purplish to a brownish hue. To this warm poultices were now applied, under the use of which the cutis on the under surface slowly sloughed away, leaving a clean sore, which gradually cicatrised under the use of the unguentum ceræ.

Though there was no obvious indication of disease in the blood-vessels of the limb, as the remote cause of the gangrenous condition, I had reason to suspect organic disease of the heart and its large vessels; but its precise nature was not determined; as, at the time of her death, which occurred in January last (from general debility), I was again laid aside by my bronchitic affection.

IS ALCOHOL FOOD OR PHYSIC?

By Pathfinder.

I notice in a contemporary three laboured columns of writing, purporting to be a reply to a leader in this Journal on the question, Is Alcohol Food? May I be permitted to appraise this criticism very briefly? for to me it seems,

"Like a tale of little meaning, though the words are strong."

For any misapprehension which anybody may have of the nature of the French experiments, the eminent men who performed them are not responsible; but no misrepresentation can be greater than that which insinuates that only "a very minute portion" of the alcohol is accounted for. M. Perrin, in his crushing reply to M. Baudot, shows that nearly one-third was re-collected in some of his experiments; and a *litre* of French wine is not a quantity which, on a Frenchman especially, will produce "profound intoxication."

The charge of "inexact research" is itself an illustration of inexactness. The experimenters either did, or did not, make and record examples of the non-absorption of liquid chloroform and ether. If they did, I shall certainly trust to their record; without impeaching the differently circumstanced (because different) resultant of Dr. Anstie. If both be true, then