stools during life were in most cases of a fluid or semi-fluid nature, but otherwise possessed the faecal character. The contents of the ileum on *post-mortem* examination were either a brownish fluid or only shreds of greenish faecal matter.

The first aspect of the clinical history of the disease, namely, vomiting and purging occurring in a large number of persons in a limited locality at a time when Asiatic cholera prevailed in some parts of England and when a few isolated cases of cholera Asiatica occurred in London, suggested the possibility of the Greenwich epidemic being due to cholera. This view was, however, soon shown to be untenable, for an outbreak of Asiatic cholera, which is limited to aged persons only, which entirely avoids the young, and in which the mortality is below 4 per cent. of the attacked, is unprecedented. Again, the complete absence of rice-water-like evacuations and rice-water-like fluid in the ileum in such a large number of cases is a strong argument against the disease being Asiatic cholera. As is well known, the stools are not of a rice-water character, nor do they contain in a watery fluid the characteristic greyish-white flakes in all cases of Asiatic cholera, yet in a considerable percentage of cases of true cholera such is the character of the evacuations and of the contents of the ileum.

The microscopic and bacterioscopic examination yielded negative results *qua* cholera, for with the exception of one case in which the comma bacillus of Finkler was demonstrated in the stools by cultivation, in no single case did the culture test reveal the presence of Koch's comma bacillus. Now it is established that this vibrio, although not demonstrable in all and every case of cholera,¹ is nevertheless present in a large percentage of cases of true cholera. As stated above, in the Greenwich epidemic the culture test for Koch's vibrio was entirely negative. From all these facts the conclusion is justified that the Greenwich epidemic was not due to Asiatic cholera.

While this negative aspect of the disease could be satisfactorily determined, as the inquiry proceeded, considerable difficulties presented themselves in determining the origin and manner of spread of the disease. The disease, as soon as it showed itself in the workhouse, attacked simultaneously a number of persons, and continued to involve from day to day an increasing number of inmates; for this reason the water or some article of food fell under suspicion. The suspicion as to food was, however, soon discarded, since a rigorous inquiry in this direction failed to elicit any connection whatever between it and the attacks. It was different with the water; the workhouse itself and the infirmary are supplied with water from two separate sources; the workhouse well and the infirmary well respectively, and as all cases occurred in the workhouse, and till very late none in the infirmary, it seemed at first as if the water of the workhouse stood in relation to the outbreak. This suspicion was considerably strengthened by the results both of the chemical and bacteriological examination of the water. Dr. Frankland's report read at the inquest condemns the water of the workhouse well, while the verdict on the chemical character of the water of the infirmary well is favourable. Dr. Klein in his evidence given at the inquest, spoke likewise in strong terms of condemnation of the character of the water of the workhouse well as being strongly polluted and unfit for consumption. He mentioned that it contained an excessive number of microbes, and amongst them an abundance of bacillus coli and proteus vulgaris and a comma bacillus, which latter was, however, not the choleraic comma bacillus. The water of the infirmary well was not of this character, it contained the ordinary water bacteria in no abnormal numbers.

While, then, strong suspicion attached itself to the water of the workhouse well, careful inquiry by Dr. Bulstrode elicited facts which eventually removed this suspicion, that is to say, it showed that the workhouse water was not the *primum agens*. In the first place it was ascertained that antecedent to the disease in the workhouse there occurred in Greenwich, but outside the workhouse, numbers of cases of illness—choleraic diarrhoea—of exactly the same nature as those subsequently appearing in the workhouse, and as the water from the workhouse well was not consumed by those persons outside the workhouse it could not have been the cause of

their illness. On the other hand, owing to the frequent intercourse which notoriously existed between the workhouse inmates and the outside population, the assumption that the disease was by means of that intercourse introduced into the workhouse is quite justified. But there existed other weightier reasons which strongly militated against the "water theory." It was ascertained that the drinkers of most water, such as children, entirely escaped, while some of the aged persons that were attacked by the disease were not water drinkers at all. The inquiry arrived, then, at this point: it could be stated that the disease was not Asiatic cholera, that it was not caused by food, that it was not caused primarily by the consumption of workhouse water, that it was most probably introduced in the first instance from outside, and that it then spread amongst the inmates of the workhouse. Dr. Bulstrode, in his evidence at the inquest, gave it as his opinion that the disease was of the nature of infectious diarrhoea, such as during cholera times, that is at times when Asiatic cholera prevails, is known to occur, but which diarrhoea is not of the nature of true cholera. Dr. Klein, in confirmation, stated that in the stools and the intestinal contents of all the Greenwich cases submitted, he found in great numbers a species of bacillus which was easily isolated by cultivation, and which proved to be a microbe not present under ordinary conditions; in its morphological and cultural characters this microbe belongs to the group of "proteus," though not identical with any of the known species of this group. And according to him it is quite possible that this microbe was connected with the cause of the infectious diarrhoea. As a matter of fact this microbe was found by him also in definite distribution in the tissue of the kidney of the fatal cases. The proteus found in the workhouse water was not the same as that present in the intestine of the Greenwich cases.

There is one point in connection with the Greenwich epidemic which ought not to be overlooked, and the jury in this instance called attention to it in terms perhaps not quite in harmony with the evidence—namely, the possible relation, as a predisposing cause, between the workhouse water and the disease. It must be obvious that the consumption of "foul water," such as that of the workhouse well was proved to be, by the feeble and debilitated aged inmates could not fail to be detrimental to these persons—at any rate, to a considerable number of them, for thereby their susceptibility to disease of the alimentary canal would in all probability have been increased. It seems almost to amount to a public disgrace that such water should have been used for drinking purposes, and that its real character should only be detected by the accident of an epidemic. We could point to several places and public bodies supplying drinking water in other parts of England, in which pollution was left unnoticed and undetected, to the cost in health and life of the consumers, until an outbreak of disease on a large scale stirred those public bodies from their apathy and their readiness to let things slide; but we fail to see why it should not be made incumbent on those public bodies to take timely action, and to keep a constantly watchful eye on the water supply without the stimulant of a catastrophe.

AUTOMATIC WRITING.

IV.

By J. WIGLESWORTH, M.D.

Primitive Man and Supernatural Agencies.—Automatic Writing and Automatic Brain Action.—Dreams.—Monomania, Mania, and Automatic States.

THE primitive man sees in all the manifold phenomena of Nature the agency of some supernatural being, and explains everything by the direct interference of some spirit or demon variously personified. As the race advances the development of a knowledge of the operation of natural laws displaces the idea of the capricious working of spirits, and a full recognition of the operation of these laws is a measure of the intellectual progress of mankind. It is natural that into the region of mind—that most obscure and complicated of Nature's handiwork—the idea of law should be the last to penetrate, and that the old savage idea of the direct interference of an outside force or spirit should here still hold its

¹ See the statements as regards the cases that occurred during 1892 in Russia, in Hamburg, in Paris, and elsewhere.

ground, is perhaps not altogether surprising; as a matter of fact, there is abundant evidence that such a method of interpreting mental phenomena still commends itself to a not inconsiderable number of persons.

In criticising the experiences of Mr. Stead and others, as published in *Borderland*, attention has been called to the analogy which exists between the phenomena of automatic writing and those of unconscious movements as exhibited in the so-called "muscle reading" or the finding of hidden objects which attracted much attention a few years ago: and the manifestations of hypnotism have also been quoted as illustrating how, when the will is in abeyance, an idea may translate itself into action without the knowledge of the subject. And it has been pointed out, as indeed has often been done before, that what is written in this way under the supposed influence of a spirit or "spook," is merely the expression of the thoughts, feelings, and life experiences of the individual who writes. No man, for instance, wholly unacquainted with a foreign language could be made by his "spook" to write that language, though clearly if there were any supernatural agency at work in the matter this would be just as easy of accomplishment as anything else. This seems to be admitted even by Mr. Stead himself, who states that he fully recognises that his "spook" writes "Steadese." Surely such a fact as this is plain evidence that the writing is produced by the automatic working of the individual's own brain, that he who runs may read.

It is nothing to the question that things are sometimes written in this way, of which the writer says he has no knowledge in his conscious state. What we are conscious of at any moment is but a small fraction of the multitudinous sensations and experiences we have gone through in the course of our lives, the impressions of which lie latent in our brains ready to rise into conscious thought, when circumstances are favourable; and it is just in these states of automatic working of the nervous centres, as we see in dreams, that long forgotten experiences, worked up it may be into new combinations, are apt to become prominent. The comparison which the writer in the *Pall Mall Gazette* makes between the state in question and that of the monomaniac is less sound. To begin with, the idea that the monomaniac is perfectly sound mentally except on the one point is not a correct description of this mental state, for rarely, if ever, are such conditions realised. And, moreover, it is not so much in a concentration of consciousness, as in an abnegation of the highest consciousness, that an explanation of these phenomena is to be sought. We should say that the phenomena of automatic writing and such like, have more analogy with some of the milder forms of mania, and epileptic states, the leading factors in which conditions are the throwing out of gear of the highest controlling faculties of the brain, and the consequent springing into greater prominence and automatic working of lower centres. In certain mild states of mania, for instance, persons sometimes exhibit a mental brilliancy impossible to them at ordinary periods, owing to the automatic working of certain centres other than those concerned in the highest consciousness; and the unconscious, albeit apparently purposive, movements and actions exhibited in certain post-epileptic states are well known.

Perhaps Mr. Stead would explain these latter actions by saying that they were performed under the directing influence of a spirit on "spook," whilst the individual himself was unconscious; and in very truth such an explanation of the phenomena would be quite as reasonable here as in the case of automatic writing. I am not surprised to hear that many mediums have become in all reality permanent monomaniacs, and I agree that the game is a dangerous one. The constant placing of the brain in a pathological condition has a tendency to produce permanent mental derangement; and, furthermore, it is not the thoroughly stable brains which are attracted by these phenomena, but a readiness for performing these displays appears to be intimately associated with a certain amount of mental instability.

MEDICAL MAGISTRATES.—Among the new Justices of the Peace for the county of Caithness are the names of Surgeon-Colonel Maclean, M.D., F.R.C.S.E., of Thurso, and David Gair Brailwood, M.B., C.M., D.P.H., of Halkirk.

STATE ASYLUMS AND LUNACY BOARDS.

WE note in the American press a warm dispute between the Lunacy Board of the State of New York and the asylums under its supervision. There are occasionally times in England when the managing committees and the superintendents of asylums feel disposed to resent the interference of the Board of Lunacy in Whitehall. It is impossible, however, for us to conceive the Commission even taking the position which they recently assumed in America. There would instantly be a revolt, with a result not difficult to predict. The management of State hospitals for the insane in the United States is essentially different from the county asylums of England. Practically the Lunacy Board in the former country has come to bear the same authoritative relation to the institution that the County Council, representing the ratepayers, does with us. The committee of management goes to the wall. It is easy to understand that the orders of the latter would be much more likely to be received with respect than those of a board not meeting on the spot, and not in a position to judge of the administrative needs of an asylum. We have not, of course, any right to assume that there has been no need for reform in the expenditure of the New York hospitals for the insane. What seems to us inexplicable is that the power over the commissariat should be transferred from the managers to a central board. The former have issued a protest in which they say, "the Commission is a centralisation of power, and is putting into three men's hands more authority than was hitherto entrusted to the several boards of managers;" and they add, "if any manager, any superintendent, or any board of managers has been recreant to their trust, it is proper to publish that fact, but it is neither dignified nor decent by generalisation to indulge in wholesale defamation."

What is called the "State care system" came into force in October, 1893. In an article in the *Utica Morning Herald*, December 4th, a statement is made which, if true, indicates an extraordinary, and indeed intolerable, state of things. "Under it the State Commission in Lunacy exercises centralised power. No purchases can be made, *employés* engaged, or repairs effected without its authority. So tightly are the reins of power held, that the other day the supply of oil having given out at the Utica Hospital, and authority to purchase not having been granted, an *employé* was obliged to carry his State lamp to his home, and fill it from his private can!"

The same paper maintains that the State of New York in decreeing, as it has done, State care of the insane, did not contemplate "saving" by the hampering and harassing asylum administration which has now occurred, and proceeds: "The people will not tolerate any such interpretation of their action or purpose. They are humane, and able to provide for such of their fellows as are the most unfortunate of human beings the comforts which the judgment of the trained specialists and intelligent local managers decide to be needful and wise."

After reading the articles which this controversy has called forth, it appears to us that under the new system in New York the asylum superintendents in the State are degraded: that the managers cannot purchase the smallest item of supply without permission from the Commissioners, who revise quantity and prices, and may even suggest where purchases shall be made. It is very evident that estimates may be arbitrarily reduced without regard to the special needs of the asylum, in order to make the taxpayer believe that a great "saving" has been effected. We confess that in view of the abuse of centralisation which appears to have been committed by the Lunacy Board, our sympathies go with the managers who have revolted, in the absence of any proof that they have failed in their duties to the State. If they have failed, let their places be filled by better men. We have no faith in the detailed administration of several asylums by a central board, composed, we believe, of only three men.

DONATIONS.—The Grocers' Company has given £100 to the Seaside Convalescent Hospital, Seaford; and £50 to the National Truss Society.

No fewer than sixteen infants died in London last week from being suffocated while in bed with their parents.