

with the Royal College of Physicians. The fees received from candidates for this examination amounted to £4048 16s., the examiners receiving as fees £573 15s. Of 753 candidates who presented themselves in chemistry, 504 passed and 249 were referred. Of 976 candidates who presented themselves in *materia medica*, 549 passed and 427 failed. The examiners in Chemistry and *Materia Medica* are elected by the Royal College of Physicians.

The examiners in Anatomy and Physiology for the Second Examination are appointed annually in conjunction with the Royal College of Physicians; they have conducted the Primary Examination under the old regulations, as well as the Second Examination of the Examining Board. 771 candidates presented themselves in anatomy and physiology, of whom 365 passed in both subjects, 152 passed in anatomy only, 64 passed in physiology only and 190 were referred in both subjects; 109 presented in anatomy only, 84 of whom passed and 25 failed; of the 178 who presented themselves in physiology only 117 passed and 61 failed. The fees received from these examinations amounted to £4291 17s. 6d., the examiners receiving in fees £1621 5s.

The Board of Examiners in Anatomy and Physiology for the diploma of Fellow, consisting of nine members annually elected by the Council, held during the past year two examinations, at which 155 candidates presented themselves, of whom 64 passed and 91 were rejected. The fees received amounted to £1018 10s. and the fees paid to the board to £697 10s.

The Court of Examiners consists of ten members, elected by the Council for five years from the Fellows of the College. They conduct the Third or Final Examination in Surgery of the Examining Board, as well as the Pass or Final Examination under the old regulations, and the Pass or Final Examination for the Fellowship. During the past collegiate year the Court has held two examinations for the Fellowship and four for the Membership. At the former there were 66 candidates, 46 of whom passed, 4 being referred for one year and 16 for six months. For the Membership there were 926 candidates, of whom 532 passed and 394 were referred. The fees paid by candidates amounted to £10,104 18s., and the fees paid to the Court of Examiners and the Examiners in Midwifery to £5792 11s. The Examiners in Medicine, under the scheme for an Examining Board in England, are elected by, and the Examiners in Midwifery in conjunction with, the Royal College of Physicians. Of the 839 candidates who presented themselves in Medicine during the year 521 passed and 318 were referred; in Midwifery, of 791 candidates 542 passed and 249 were referred.

The Board of Examiners in Dental Surgery, consisting of eight members, are elected by the Council for five years, and have held two meetings for the examination of 81 candidates, 51 of whom received their diplomas. The fees paid amounted to £535 10s.; of this the board received as fees £340 4s.

The Examiners in Public Health, appointed in conjunction with the Royal College of Physicians, have examined 58 candidates in Part I., 49 of whom passed and 9 were referred. For Part II. 52 candidates presented themselves, 40 of whom passed and obtained the diploma and 12 were referred. The fees paid by candidates amounted to £276 3s. and the fees to the examiners to £231.

With regard to the finances of the College, it appears that the income from all sources amounted to £39,619 10s. 1d., the largest receipt being, as already shown, derived from the fees paid by candidates for the diplomas of the College—viz., £20,275 14s. 6d., the next largest being from sale of stock, £11,248 14s.; investments, £5879 1s. 9d.; rent from chambers adjoining College, £665 3s. 1d.; incidental receipts—i.e., hire of rooms, sale of calendars, questions &c.—£540 11s. 4d.; trust funds, £251 16s. 11d.; fees retained for candidates £660 10s.; balance at banker's, Midsummer Day, 1891, £97 18s. 6d.

The expenses for the year amounted to £39,283 6s. 10d., leaving a balance at Midsummer Day, 1892, of £336 3s. 3d., the largest item being for extension of College premises—viz., £10,209 6s. Fees to examiners amounted to £9256 5s.; half of the expenses for the Examination Hall and laboratories, £5373 4s. 4d.; salaries, wages and pensions for officers and servants in the three departments, museum, library and office, £4927 2s. 2d.; rates, taxes and insurance absorbed the sum of £1003 9s. 3d.; extraordinary expenses, £1959 2s. 7d.; fees returned to candidates, £560 10s.; alterations and repairs, £676 11s. 9d.; fees to council, £289 16s.; law expenses, £755 16s. 3d.; purchase of books &c. for library, £662 8s. 11d.; lectures, specimens, catalogue &c., for museum department,

£816 0s. 6d.; whilst under the heading of miscellaneous items, fuel, light, printing, stationery, trust funds &c., about £3000 appears to have been expended.

## CHOLERA.

### CURRENT NOTES, COMMENTS, AND CRITICISM.

WHILST the cholera has shown marked signs of diminution in Hamburg, and is slowly but steadily declining in Paris and St. Petersburg, it still continues very prevalent in certain provinces of Russia, and it has broken out at Buda-Pesth. It also continues to prevail to some extent in Holland, Galicia, and at Havre, Antwerp and Cracow.

At Hamburg the total number of cases during the six weeks since it first appeared amounts to 17,701, and the aggregate number of deaths up to the latest official returns is 7536. It is stated that most of the public schools either have already opened or will resume work next week. The outbreak in the Hungarian capital, Buda-Pesth, seems to have been sudden and somewhat severe, affecting especially the quarters on the left bank of the Danube. As in the case of Hamburg, the drinking water is obtained from the river. The authorities at Buda-Pesth were not without some preliminary warning of what was likely to occur. It is alleged that there was at first, when the number of seizures left no doubt of the presence of the epidemic, a great want of preparedness on the part of the municipal authorities to meet the exigencies of the case, and that this had given rise to much popular dissatisfaction and apprehension—in Vienna especially. Whether this may have been the case or not, there is no doubt that the authorities at Buda-Pesth soon set to work in the direction of providing additional hospital accommodation and sick transport. It must always be borne in mind that there is a general disposition to do as little as possible where financial considerations are involved, and to raise a great outcry when it is afterwards discovered that the penalty has to be paid for any neglect or inadequate arrangements.

The reply published by the Chief of the Foreign Affairs Department to the alleged granting of clean bills of health to vessels leaving Hamburg after the outbreak of cholera appears to be a precise and straightforward statement of facts. It supplies us with certain data in regard to the manifestations of the epidemic in that city which it may be of interest to record with reference to the complaints that have been made about the steamships *Moravia* and *Normannia*. According to the official register, the *Moravia's* certificate was issued on Aug. 16th, when there was not the slightest suspicion at Hamburg of an outbreak of cholera. Through the published statements of experts it is known that unmistakable indications of the disease were not discovered until the 22nd of August, and it was still doubtful on the 23rd and 24th of August whether the disease was of an epidemic character. At the latter date the Senate ordered a daily report to be issued, and that the opinion of Professor Koch, who was in the city at the time, should be taken. Bills of health, which had been drawn up on the 24th but not delivered, were withheld, but that for the *Normannia*, dated the 24th, had already been delivered to the ship before the issue had been suspended.

It may also be well here to correct a very general misapprehension that prevails as to the part played by the Jewish Russian emigrants in the spread of this disease. It is the prevailing notion that cholera was conveyed by them and followed everywhere in their track. It is pointed out, however, by a correspondent, in the *St. James's Gazette* of the 5th inst., that such was not the case. As far as Germany is concerned, cholera first broke out in Hamburg, and it was not taken there through Germany by Russian Jews. The earliest cases occurred in the port of Hamburg among the labourers and sailors. The disease had been present in France long before, and in Eastern Russia and St. Petersburg some time before the occurrence of the outbreak in Hamburg. Exactly how it got there, and how the water-supply became infected, are matters still requiring the most careful and minute investigation.

We notice that, owing to the increase of cholera at Buda-Pesth, the military authorities have ordered that tea with citric acid should be supplied to the troops. We prefer the use of a sulphuric-acid-ade. The garrison has remained free from cholera. A bacteriological examination of the alleged

cases in the garrison hospital showed that they had not died of Asiatic cholera. It would seem, by the way, that different varieties of the bacillus had been detected in the course of this epidemic, and it might be interesting to refer to Dr. Cunningham's researches published in Part VI. of the Scientific Memoirs of the Army Medical Officers of India. This officer states, we believe, that he has discovered ten different varieties of the bacillus. If this be so, it will tend to widen our knowledge of the different forms assumed by cholera, that is, on the assumption that Koch's bacillus be the specific cause of that disease.

It seems to become clearer every day that a further extension and development or revitalisation of this epidemic disease may be anticipated during the summer and autumn of next year, and practically the lesson which has to be driven home is, that we should during the interval see to our water-supplies, drainage and general cleanliness, and to the organisation of our methods of procedure should the epidemic unhappily obtain any foothold hereafter in this country. It has not done so yet, and there is no reason why it necessarily should do so. Still, whatever we may do now to protect us from cholera is not thrown away—it is equally useful against other diseases. In view of the wisdom and foresight so far exhibited by the medical department of the Local Government Board, we think the country may feel satisfied that these things will not be lost sight of, and it only remains for the people to render all the aid they can.

A suspicious case of cholera is reported from St. Thomas's Hospital, to which institution a patient was admitted on Sunday morning last, Oct. 2nd. It appears that on Friday, Sept. 30th, the patient was taken ill with profuse diarrhoea, the stools having the rice water appearance so characteristic of the malady, and suffering from cramps in the limbs and from violent thirst. After having had eight pints of saline solution injected into the veins improvement was apparent, and this was maintained for twenty-four hours, but a relapse subsequently supervened. The patient now is slightly better but still collapsed. It has not been possible to trace any source of the infection and the cholera bacillus has not been isolated. The case is under the care of Dr. Ord.

## THE CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

### THE CONFLICT OF THEORIES.—THE ICE SUPPLY.—THE SUBURBAN CESSPOOLS.

NOTWITHSTANDING the slight increase in the number of deaths due to cholera, which followed and perhaps was caused by the *fête* of Sept. 22nd, the epidemic seems decidedly on the wane. As already mentioned, there was an average daily death-rate of twenty-four in Paris during the first twelve days of September. It will be found, in all probability, that this average fell to about ten per day towards the end of the month. Still it is impossible to feel any sense of security. The fact that the last cholera epidemic did not commence until the month of November is a very disquieting consideration. Though the present outbreak of the disease seems to be gradually dying out, it is like a smouldering fire which may blaze forth again at any moment. At Hamburg it can be said that the cholera has pretty well exhausted itself, while in Paris a pessimist might argue that we have only as yet seen the forerunners of the epidemic. Then there is another grave consideration. At first it seemed very probable that the drinking of the Seine water was the only cause or vehicle of cholera. Up to the middle of August it was the suburban population who drank Seine water after it had passed through Paris who were the chief sufferers. The cases that occurred in Paris and in districts where other than Seine water was drunk were not numerous. It was therefore easy to suppose that the victims had gone for business or pleasure to the dangerous suburbs, and while there had drunk the Seine water, or had been in personal contact with a case of cholera. This theory engendered a sense of false security. It seemed simply necessary to avoid drinking the Seine water or else to boil it very carefully. But in September the tables were turned. It was Paris, where no Seine water was consumed, that suffered most and the Seine water-drinking suburbs least. In September there were twice as many deaths in Paris as in the suburbs. Evidently a large proportion of these deaths

within Paris was due to other causes than the drinking of the Seine water. In the suburb of Aubervilliers, where so many cases of cholera had occurred, an artesian well had been dug, and the inhabitants were offered other than Seine water to drink. Simultaneously with the opening of this new water-supply the prevalence of cholera at Aubervilliers notably decreased. Could there be a better confirmation of the Seine-water theory? But if one looks more closely into the matter the theoretical result of the experiment is not so evident. The commune of Aubervilliers spreads over a large district, and a very considerable proportion of the cases of cholera occurred at a distance of more than a mile from this new well, close to the walls of Paris, near the Pantin gate. On the Route d'Allemagne, beyond the Porte de Pantin, there is a numerous, poor, industrious population which has greatly suffered from cholera. Speaking to a poor woman in this district, one of the medical inspectors expressed the hope that she carefully boiled the Seine water which she used for drinking purposes. The answer given was a striking illustration of the true state of affairs. The woman was indignant at the question. She looked with commiseration upon the well-dressed medical inspector, who talked about sterilisation and microbes; he was evidently a very ignorant person; how could the Government employ such impracticable theorists? "Why," she exclaimed, with simple eloquence, "you do not know the price of fuel. I cannot afford enough fuel to cook my dinner properly, how am I to pay for fuel to boil drinking water?" Nor can the people living about here find, in their poverty, the time to walk a long distance to fetch a jug of pure water from the new supply organised by the Aubervilliers municipality. The people near the Pantin gate therefore continued to drink bad water, they rarely, if ever, boiled this water; and though the prevalence of cholera has decreased in this neighbourhood, the improvement is in no wise due to the new supply of water provided at Aubervilliers. Thus cholera is found to be decreasing where the Seine water is still drunk and increasing where it is not drunk.

These facts do not imply that the Seine water is a safe beverage, but they do indicate that there are other causes at work besides this poisoned water-supply. One at least of these other causes has been discovered, though very little has been said about it. A great many samples of ice have been submitted to analysis. The public were told to avoid iced drinks &c.; they have not, however, been told why ice is dangerous. The reason, I was told, was that it would cause too much alarm if mentioned in Parisian journals, but it would not have the same effect if recorded in a foreign technical paper. The truth is that on examining the ice sold in Paris some samples had been found to contain the comma bacillus. This fact, if generally known, might cause an unjustifiable panic. It would tend to empty the cafés of their usual customers, iced water being generally mixed with the drinks so largely consumed before meals. It is not because a few samples of ice were composed of contaminated water that all ice is unsafe. More important by far than this slight risk is the question as to how the comma bacillus could possibly have been found in the ice. A part of the ice sold in Paris is gathered from ponds &c. in the outskirts of the town. These are stripped of their ice during the winter months; and as the water is usually stagnant and often foul the utilisation of such ice was on general grounds declared dangerous. If, apart from such risks, the specific germ of cholera is in the ice, and if this be the ice that has been collected from ponds during the winter, then does not this show that the germ of cholera was here long before the month of April? Indeed, it is now very generally admitted that in all probability there were cases of cholera some time before April 5th, the date of the first officially recognised case at Nanterre. If the Seine water was the cause of the epidemic in the prison of Nanterre, somebody or something must have first contaminated the Seine water. The presence of the comma bacillus in ice is a suggestive indication of this previous contamination. This is a clue that should be carefully followed up.

A great deal is now being said about the system of drainage in Paris. The cholera epidemic has been seized upon as a pretext to advocate the continuation of the cess-pool system. The Seine, we are told, is contaminated because some houses drain directly into the sewers, and the sewers have their outfall in the river. Already, however, one-third of the sewage is utilised for the irrigation of the market gardens on the plain of Gennevilliers. In time it is proposed to throw the other two-thirds on the plains of