my disposal I am not prepared to speak with the same certainty as to the exact percentage of arsenic present, but there is strong evidence that this glucose contains fully 0·5 per cent. by weight of arsenious acid. The quantity of

Table of Analyses.

No.	Material.	Arsenic.	No.	Material.	Arsenic.
	Firm A.			*Firm D.*	
α	Beer.	+	2	Hops.	–
β	,,	+	3	,,	–
γ	,,	+	24	Glucose.	–
8	Hops.	–	25	Inverted sugar.	–
9	,,	–			
10	,,	–		*Firm E.*	
11	,,	–	4	Hops.	–
12	,,	–	5	—	–
21	Glucose.	–	6	—	–
22	,,	–	7	—	–
23	,,	+	40	Inverted sugar.	+
24	Inverted sugar.	+	41	,,	–
28	Malt.	–			
29	,,	–		*Various other beers.*	
30	,,	–	I.	—	–
31	,,	–	II.	—	–
32	,,	–	III.	—	–
33	,,	–			
34	,,	–		*Firm F., Brewers' sugar manufacturers from whom sugars used by Firm A and E are obtained.*	
36	Preservative.	–			
35	Gypsum.	–			
27	Water.	–			
	Firm B.		44	Glucose.	+
13	Hops.	–	45	—	+
14	,,	–	46	—	+
15	,,	–	47	—	+
16	,,	–	48	—	+
17	,,	–	49	—	+
18	,,	–	50	Inverted sugar.	+
19	,,	–	51	,,	+
20	,,	–	42	Sulphuric acid.	+++
38	Glucose.	–	43	Sulphurous acid.	–
39	,,	–	56	Whiting.	–
	Firm C.		52	Maize meal.	–
1	Hops.	–	53	Sago flour.	–
37	Glucose.	–	54	Tapioca flour.	–
			55	Cane sugar.	–

arsenic in the beer is small and it would require a considerable time to make a quantitative analysis; about the presence of arsenic in appreciable quantity there can be no doubt."

From these results it is evident that arsenic is contained in the beer in sufficient quantities to account for chronic arsenical poisoning. The symptoms of the cases inquired into are also quite consistent with this view—viz., running of the eyes and the nose, pigmentation of the skin, various rashes, including peeling of the hands and feet, paralysis, analgesia, myalgia, pins and needles in the hands and feet, and diarrhœa (in one case). Other cases have been heard of where the individual has suffered from vomiting and diarrhœa and has at once ceased drinking the offending beer, no further symptoms occurring. Further, every case we have followed up (about 100) can be traced to beer in the brewing of which glucose or sugar from one manufactory were used. As this firm supply about 200 breweries, to a greater or less extent, in the North of England and the Midlands, it is not surprising to find that similar cases of illness are occurring in other districts.

It is due to the sugar manufacturers to say that we understand they have issued a circular to their customers advising them of the facts and requesting them not to use any of the materials already supplied. Our thanks are due to the brewers for the facilities which they have given for the prosecution of our inquiry, and there cannot be the slightest doubt that they are entirely innocent of any negligence.

We cannot conclude without referring to the very great assistance which we have received from Dr. Coutts, F.I.C., who has carried out the great bulk of the analyses. In conclusion, we think we have proved the correctness of Dr. Reynolds's opinion that this outbreak of disease is due to arsenical poisoning from beer-drinking; that the presence of arsenic in the beer is due to the use of contaminated glucose and inverted sugar by the brewers; and that this contamination of sugar is caused by the use of very impure sulphur acid by the sugar manufacturer prepared from arsenical pyrites. It seems to us very necessary that the use of sulphuric acid in the preparation of articles for consumption should be placed under strict supervision.

SHERIDAN DELÉPINE.
Salford, Nov. 27th, 1900. C. H. TATTERSALL.

*** We have received photographs of the octahedral crystals of arsenious acid obtained from 40 cubic centimetres of the specimen of beer marked γ in the table, and from three grammes of the specimen of glucose marked 44.—ED. L.

THE NEW PROPHYLAXIS AGAINST MALARIA: AN ACCOUNT OF EXPERIMENTS IN LATIUM.

BY PROFESSOR ANGELO CELLI.

(*Specially translated for* THE LANCET *from the Supplemento al Policlinico, Anno VI., N. 51.*)

THE modern theory of the propagation of malaria by means of mosquitoes had scarcely been confirmed experimentally when, in my lectures in May and June of 1899 and shortly afterwards in book form,[1] I gave an exposition of the new epidemiology and the prophylaxis following from it. This, I pointed out, in order to be completely successful must be directed against (1) the causes bringing about infection, either by (*a*) destroying these (by disinfection of the blood of malarious persons and by the destruction of mosquitoes) or (*b*) by preventing their entrance into the human organism (by protection of dwelling-houses and of the exposed parts of the body); and (2) against the predisposing causes (organic, physical, and social). In view of the arduous nature of any attempt to battle against the latter set of causes I endeavoured (even before the commencement of the malarial season of 1899) to put into practice those only of the prophylactic measures which have for their aim the suppression of the direct causes of the epidemic, that is to say, the causes bringing about infection. I was even then persuaded, and am now more than ever convinced, that a complete and certain prophylaxis by disinfection of the blood by means of quinine is practically impossible, although Koch, and later Gosio, and at first Grassi also, believed in its efficacy. And I had likewise come to the conclusion, through my own and Casagrandi's researches,[2] that although the destruction of the mosquito in the aquatic and the aerial stages of its existence is in itself not a difficult thing, this is not practicable on a large scale, chiefly because there is not the same immediate material advantage in killing insects which are injurious to man that there is in destroying those which are injurious, for example, to the grape-vine.

My first prophylactic experiments of 1899 had consequently for their object the testing of the means best adapted to prevent the bites of mosquitoes and the resulting penetration of the malarial germ into our bodies. On one hand I made experiments with various substances, such as ointments, soaps, and odours, calculated to drive away mosquitoes, and satisfied myself that they were of little use, even the best of them, as, for instance, those with turpentine for their basis, either because of their ephemeral effect, especially in the open air, or because of the negligence of those employing them. On the other hand, I adopted the method of mechanical protection of the houses and of the exposed parts of the body, not omitting at the same time the disinfection of the blood by an assiduous attention both to relapses and to primary fevers, and the destruction of any

[1] Malaria According to the New Researches (Longmans, Green, and Co.)
[2] Per la Distruzione delle Zanzare, Mem. I., Annali d'Igiene Sperimentale, vol. ix., 1899.

mosquitoes which might accidentally penetrate into the houses. It will be well to refer here once more to the experiment which I made in the æstivo-autumnal season of 1899 on the two railway lines, notoriously malarious, of Prenestina-Cervara and of Pontegalera. I shall therefore give a brief *résumé* of the official report dated Dec. 13th of last year.[3] On the first-mentioned of these two lines we selected for experiment the linemen's cottages numbered 4, 5, 6, 7, and 8, and on the second those numbered 19, 20, and 21. We covered the windows with frames of tulle,[4] thus allowing air and light, but no mosquitoes to pass. At the top of the staircase a door with a similar frame was placed the better to protect the bedrooms. This door, as well as the outer ones, was made to close automatically so as not to demand too much of human apathy. The entrance door, as being more liable to injury, was furnished with wire gauze instead of muslin. We advised the inmates to sleep with the windows open so that the air, filtered as it were from insects, might pass in freely. For the protection of persons employed on night duty we used cowls like those of bee-keepers, provided with a circular mask of wire gauze and having attached to it below a veil tucked under the coat, at the ends of the sleeves of which very wide gloves of chamois skin were tightly sewn on. A vigilant outlook was daily kept for mosquitoes in order to find and eventually to capture them in the houses. Every family was provided with a powder for burning in case by any chance a mosquito should make its way in. The neighbouring linemen's cottages and the stations of Cervara and Pontegalera served as controls. On the Prenestina-Cervara line Cottage No. 6 served the same purpose, the inmates being negligent and refractory and allowing mosquitoes to enter constantly. Some of the latter were found infected so that we were able to predict the epidemic which afterwards developed attacking 12 out of the 14 inhabitants. Among the controls on the Cervara line 24 persons contracted malaria and at the station of Cervara, renowned for its malaria, all were attacked. In the control zone of Pontegalera, two persons who had acquired immunity from having had the disease previously escaped infection. On the other hand, in the linemen's cottages which were protected, out of 24 persons four were attacked, but these were on night duty and took no heed of our instructions. Three of them were ill for a long time, two from tertian, spring and autumn varieties respectively, and one from quartan fever. In spite of quinine administered promptly and abundantly they relapsed several times and their blood contained a large number of gametes—that is to say, of those parasitic forms most dangerous for contagion. At the same time their wives and children living in the protected houses along with them enjoyed immunity from the fever. The disease did not therefore spread through a whole household in the usual way, and *for the first time since the construction of these lines of railway the families of the railway servants were able in highly malarious localities to pass the whole summer and autumn in the Campagna without contracting fever.*[5]

The result of these experiments, which were the first of their kind in malarial districts, very greatly impressed Manson,[6] who came to see my field of experiments at Cervara,[7] and they induced the directorate of the Adriatic Railway Company to extend the system in Latium from Prenestina to Salone and on the Castelgiubileo line; and also into Southern Italy near the station of Ofantino in the Province of Foggia.[8] The Southern Railways Company in its turn determined to extend the same experiments to the most malarious of the linemen's cottages on the lines of Terracina, Anzio, and Pontegalera, here in Latium, and to those near the station of Albanella in the province of Salerno. The conduct of the former of these two experiments was entrusted to me, the other, in Southern Italy, to Grassi, who was member of a consultative committee appointed for the purpose by the same railway company.[9] In like manner the Sicilian railways have also extended to the sections of their lines lying in malarial zones the same system of prevention. I must, however, limit myself to an account of the results of the new prophylaxis as obtained in Latium, where, encouraged and taught by the experience of last year, I attempted to defend against malaria in the season which is now drawing to a close, not only the railway servants, but also the caretakers in the Campagna and the peasants. I shall now briefly recount what I did for each of these and the results which I obtained.

A.—PROTECTION OF THE RAILWAY SERVANTS.

The method employed was that of the previous year, with the difference that wire-gauze[10] was everywhere substituted for the muslin, and that a large cage of wire-gauze was placed in front of the door so as to form a kind of porch or ante-chamber. This addition of a porch, first suggested by Dr. Blessich, is very useful in giving greater protection to the rooms on the ground floor and affording a shelter where in the summer the family can have the benefit of the open air without actually going outside. As a rule, the doors were made to close automatically, and to make sure that no mosquitoes entered by the chimneys the latter were also covered by gauze with a wider mesh. To render easier the discovery and destruction of any mosquitoes that might chance to enter, the walls of the rooms were whitewashed.

Large and repeated doses of quinine had been administered to any persons who had had relapses in the spring as well as to the very few patients with primary infections, the treatment being completed in all cases with arsenical and ferruginous preparations. No prophylactic medicine was given except to those on night duty on the Adriatic lines, whom I had not been able to induce the previous year to wear regularly at night time the special head-gear and gloves provided for the purpose. They were made to take euchinin in a daily dose of from 0·50 to 0·75 centigramme. On the Mediterranean lines we had not the same difficulty, because there mosquitoes and other insects are so numerous as to cause intolerable annoyance, apart from any danger of their conveying fever. The results which we obtained were briefly as follow.

1. Prenestina-Salone line. On this line we this year protected also the houses on the Cervara-Salone section which last year served us as controls. We were able, however, to use for this latter purpose the intermediate stations of Cervara and Salone as well as the section beyond from Salone to Lunghezza. Now in the zone which was protected out of 52 persons only two contracted fever—namely, a watchman on night duty attacked on June 15th (before the commencement of the prophylactic treatment of those engaged in this dangerous service) and a woman attacked on Oct. 15th who had always shown herself refractory to our recommendations. The watchman, notwithstanding abundant and repeated doses of quinine, had had three relapses at long intervals; nevertheless, his malaria did not prove infectious to the other seven persons who lived in the same house. In the rest of the protected zone 50 persons (21 adults and 29 children) remained free from fever. On the other hand, in the zone of control, two out of three persons sickened at the station of Cervara, 16 out of 18 on the Salone-Lunghezza section, six out of 10 in the station of Salone—the four who escaped having been in the habit of frequently sleeping at Rome—and in the houses of the country people along the protected portion of the line and in the huts of Salone there were about 100 peasants, all of whom sickened. Also on the farms of Rustica, Cervelletta, Bocca di Leone, and Gottifredi all, or nearly all, took the fever. *Our protected zone thus remained almost free from malaria in the midst of a fever-stricken region, and in order to render healthy a district where during the preceding year*

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[3] I primi esperimenti di protezione del personale ferroviario dalla malaria, Relazione del dott. Baldi, Supplemento al Policlinico, 21 Febb., 1900.

[4] These frames were never removed from the windows of the first floor of cottage No. 19 on the Pontegalera line and now, two years later, are still in excellent preservation. For those who cannot afford metallic frames the muslin ones may be recommended.

[5] Vide Bollettino n. 3 della Società per gli Studi della Malaria. Sitting of Feb. 5th, 1900.

[6] Brit. Med. Jour., Feb. 10th, 1900.

[7] A very pleasing sequel to this visit was the experiment of Dr. Sambon and Dr. Low who, in order to obtain documentary evidence as it were of the efficacy of the new prophylaxis, came and passed the malarial season in the most deadly spot in Ostia in a hut protected against mosquitoes and who, together with two other persons, have remained all the time in perfect health.

[8] Dr. Martirano, who has carried out the prophylactic experiments at Ofantino on 28 persons, has not had a single case of primary malarial infection to report.

[9] Professor Grassi published before the season had come to an end an anticipatory report, and this without any hint that others had been working before and were still at work for the railway company and for the Society for the Study of Malaria, by whom the funds were supplied.

[10] The diameter of the mesh of the gauze should not be greater than two millimetres at most; this size prevents the entrance of any but a very small culex. To exclude all sizes of mosquitoes with certainty the mesh should have a diameter of only from 1 to 1·5 millimetres. A coat of varnish is applied to preserve the netting.

everyone had had fever it sufficed to extend to it the new method of prophylaxis.

2. Castelgiubileo line (from the seventh to the nineteenth kilometre inclusive). On this line the experiment succeeded in a degree highly convincing. Here there are two types of lineman's cottage—the new and the old; the latter from its peculiar construction does not lend itself to being protected and was therefore left to serve the purpose of control. This turned out to be a fortunate circumstance because the old and the new cottages as nearly as possible alternate with one another. Now in the protected houses out of 57 inhabitants not one took fever, while in the unprotected houses out of 51 inhabitants only seven escaped, and these were nearly all adults, immune in consequence of previous attacks. Among the children, on the other hand, only two out of 29 escaped infection in the unprotected huts, whilst of the 36 children in the protected houses not one was attacked. We also made two further control experiments. On August 23rd it became necessary, for reasons connected with the railway service, to transfer a family consisting of a husband, wife, and son from cottage No. 17, where they had always enjoyed good health, to the next cottage, No. 16. About a month afterwards the wife and child were attacked by fever. On the other hand, a family consisting of husband, wife, and six children, all of them suffering from malaria, had been placed in cottage No. 17. We at once put them upon a full and prolonged course of quinine followed by tonic treatment with arsenic and iron. Secure in their protected house from the baleful mosquito, this family has made an excellent recovery, although their convalescence and cure had to go on through the height of the malarial season. Only one of the children, in whom the relapses were more obstinate, still remains in somewhat poor condition. On this Castelgiubileo line the proof of the value of the new prophylaxis has thus been most decisive and eloquent. *Of a whole community of persons all subjected to the same conditions in other respects, those whom we defended against mosquitoes have remained free from fever, whilst those left unprotected have nearly all been attacked.* It is as if we had a book with its pages alternately white and black, the white pages corresponding to our protected houses and families, the black representing those left unprotected. No less decisive in their results were the experiments made on the other lines.

3. Pontegalera line. Here, in the section outside of the protected zone, in cottages Nos. 15 to 19 inclusive, out of 42 railway servants only three escaped the fever. In our protected zone, on the other hand, out of 36 persons only two contracted it, while in the section further on, from the twenty-seventh to the thirty-third kilometre, out of 10 persons only one remained unattacked. As further controls we had the station of Pontegalera, placed almost in the midst of our zone of experiment, where out of seven persons six were attacked; the first lineman's cottage on the Fiumicino railway, where all of the three inmates suffered; and some neighbouring country cottages in which at Chiesola 30 inmates out of 30 were attacked, at the hamlet of Pontegalera four out of four, and at a house placed almost midway between two of the protected railway cottages 12 persons out of 12.

4. The Anzio line. Here we selected for protection the two cottages most noted for malaria—namely, those at the twenty-fifth and thirty-second kilometre. Now in these two cottages, in each of which were four persons, all remained perfectly well, and four other persons who came from the Terracina line to live in them suffering severely from malaria recovered their health completely. On the other hand, in the cottages from the eighteenth to the twenty-third kilometre, out of 39 inmates 36 sickened with fever; in the cottages lying between the two protected ones nine out of nine; and in those beyond our No 32 cottage eight out of 10. Among a squad of linemen numbering six there were four fever patients, the two who escaped belonging to the family protected by me at the twenty-fifth kilometre.

5. The Terracina line. In the railway cottages along this line, so terribly malarious, I had 30 persons protected between the station of Frasso and Terracina. Of these only two suffered from primary infections—namely, a lineman who by mistake went on night duty without his mosquito hood and a little girl who had had quartan fever. In two persons who had become malarial cachectics during the previous two years æstivo-autumnal attacks recurred with obstinacy up to the first few days of October, in spite of treatment. None of the others had malaria. On this line also I was able to establish a series of controls analogous to those I have described on the Castelgiubileo line by leaving here and there cottages unprotected. Of 37 persons inhabiting these latter 35 took fever.

To sum up, of 207 railway employés subjected to the new prophylaxis against malaria during the seasons 1899 and 1900 only 10 contracted fever, although they were living in the most unhealthy regions of Latium and in the midst of their fellows, all, or nearly all, of whom were stricken by the disease. Also, in houses defended against the invasion of mosquitoes malaria loses its contagiousness and no longer gives rise to the usual epidemic. Further, the treatment of, and convalescence from, malarial fever can be carried on in malarious localities in houses protected from the invasion of mosquitoes quite as well as in places where the air is good.

It is to be noted, in conclusion, that this favourable result was obtained with the utmost simplicity, all that was necessary being a little persuasion with a small present, and the supervision which I and two railway officials who assisted me, one on the Adriatic and the other on the Mediterranean railways, were able to exercise. A similar result could therefore be attained wherever and whenever desired, and I am able to say that these two railway companies propose to secure it on the largest possible scale.

B.—PROTECTION OF THE CARETAKERS IN THE CAMPAGNA.

Two Roman companies—namely, the Società dell' Acqua Marcia and the Società dell' Elettricità—have each a caretaker's house on the road from Rome to Tivoli, both situated in localities with a bad type of malaria which has hitherto attacked the families residing in them every year; or rather, I should say, the wives and the five children, for the husbands, owing to many years of past suffering from the disease, have become immune. This year for the first time the wives and children have escaped infection, and this immunity they owe to my having had their houses protected before the commencement of the malaria season in the same way as those of the railway people with wire-netting. As I had here to deal with persons of intelligence who could be trusted to carry out my instructions carefully I left this experiment to proceed, as it were, of its own accord. At the beginning of the season I went with the companies' engineers, first to order, and then to approve, the protective arrangements for the houses. I gave the requisite instructions (to remain indoors from an hour before sunset till an hour after sunrise and to kill any mosquitoes that might accidentally gain entrance) and after that I did not return. From the engineers, however, I have from time to time received news of the welfare of these people, together with thanks for the danger escaped. The same protection may thus be secured whenever they desire by all the caretakers of the communal, provincial, and Government roads, of monuments, and of the works for reclaiming waste lands in the many malarious districts of Italy.

C.—PROTECTION OF THE PEASANTS.

Malaria rages most of all among the field labourers, working as these do in the most dangerous hours of the evening and night at the most unhealthy time of year—namely, when the principal crops are reaped—living in habitations of a wretched or defective kind—or without any habitation whatever—and withal very insufficiently clad. Such conditions render it very difficult to carry out among these people the prophylactic measures which would be, and ought yet to become, of the greatest benefit to them socially. I wanted notwithstanding this to make the attempt. Accordingly, I protected in the usual way, with nets over the windows and doors, the hamlet on the farm of "Le Castella," and about half of the hamlet of the "Cervelletta." Among the houses so protected on the latter farm was one with a terrible reputation for the number of victims which malaria had yearly claimed from it, so much so that the proprietor wished to shut it up. Below this house, in which two families (six persons) were going to live, was another, a sort of tavern, which I also protected with the netting. And, finally, I determined to make the same experiment with that most primitive of all human habitations, the straw hut, closing thoroughly with straw all the holes in its sides, and with wire gauze the openings for allowing the smoke to escape; I placed at its entrance a big cage of

the same material, furnished in its turn with two doors made to close automatically. I protected three huts in this way, two at the Cervelletta and one at the Castella.

It is more difficult to induce half-educated people to believe that malaria may be conveyed by the bites of mosquitoes than it is to convince the ignorant peasantry of the fact. On this account I met with much less difficulty from some of the more intelligent among the latter than I had expected in getting them to carry out the new prophylaxis so as to insure success.

In the hamlet of the Castella the family of the manager and the medical man of the Red Cross Society escaped infection, notwithstanding that some stagnant water from a ditch, which was brought into the house in an old cask, might have developed many mosquitoes. So also the 17 Lombard peasants who slept in the protected part of the hamlet of Cervelletta were rewarded for the great care they took by only one of their number falling sick with malaria, a man who was in the habit of getting drunk from time to time and while in this helpless state of sleeping in the open air. In the part of this hamlet which served as control we had at the same time 10 cases of primary infection and several relapses from the previous year's epidemic. And the house so cursed with the disease in former years had no fresh cases in it. One family was, however, obliged to leave its protection in the early days of September, and now (between Oct. 15th and 17th) the two children have already contracted fever.

In the midst of the other straw huts all stricken with malaria, the protected hut at the Castella, with a family, consisting of father (a very industrious man), mother, and three children, remained, wonderful to relate, quite free from fever, as did also one of the protected huts at the Cervelletta with five inmates—father and mother and three children. In this latter hut we never found mosquitoes; a few which found their way as far as the outside cage were killed. On the other hand, in the third protected hut, notwithstanding all our warnings, we found mosquitoes in the cage every morning and also often inside the hut itself. Finding it impossible to induce this family, on account of their apathy or their ignorance, to take the necessary precautions, we removed the protection, and three out of four of the inhabitants took fever. Thus, so long as the peasants were careful, they were able to defend themselves from malaria even in the most primitive of dwellings, the straw hut.

In order to protect from fever the nomadic rural population who come down to the Campagna at the season when the most dangerous kind of work is in progress, and who are easily infected on account of their sleeping in the open, the Caetani family are making a preliminary trial in the Pontine Marshes of a large hut constructed of wood and wire-gauze which can be taken to pieces and transported to wherever it is wanted.

Naturally, in order to make quite complete what we may call this mechanical prophylaxis for the peasantry it would be necessary to stop their work in the more dangerous hours. Besides this one must not lose sight of the ideal kind of prophylaxis for people who work—namely, that of making them artificially immune against the disease. With this object in view I have made, and continue to make many experiments, especially with euchinin, and I propose shortly to give an account of the results obtained by this medicinal method of procuring immunity. For the present I wish to insist upon the fact that by means of the mechanical prophylaxis for malaria (protecting the houses and the uncovered parts of the body) a great step in advance has been made for practical purposes. Among railway employés, caretakers, and even the peasants of the malarious Campagna the lesson of the last two years has been so persuasive that all of those who have hitherto served as controls are anxious to be protected during the next fever season. Within no very distant date all houses in malarious localities will be defended against the entrance of insects; thus during the day there will be no inconvenience from flies and other insects of an unclean, troublesome, or injurious kind, and at night there will not be the annoyance and evil effects of mosquitoes. In all low-lying, warm, moist places, where myriads of insects of every species swarm, this mechanical means of defence against their invasions will become the best of the prophylactic rules for the prevention of malaria and other diseases.

THE METROPOLITAN BOROUGH COUNCILS.

THE following list, compiled from official information, is a substantially complete enumeration of the medical men who have been elected members of the first metropolitan borough councils. There are, however, we believe, one or two vacancies to fill in consequence of the election of aldermen from the council, but the filling of these vacancies will probably leave the list unaltered.

Battersea.—Councillor: Mr. L. S. McManus, M.D., M.Ch. R.U.I.

Bermondsey.—Councillor: Mr. J. Mulqueen, L.R.C.P., L.R.C.S. Irel.

Bethnal Green.—Councillors: Mr. W. A. Farebrother, L.S.A., and Mr. F. E. Rogers, M.R.C.S. Eng., L.R.C.P. Lond.

Camberwell.—Councillor: Mr. A. Smith, L.R.C.P. Irel.

Chelsea.—Councillor: Mr. J. W. Erskine, B.A., M.B. T.C.D., L.R.C.S. Irel.

Deptford.—Councillor: Mr. F. T. Tayler, B.A., M.B., L.R.C.P. Lond., M.R.C.S. Eng.

Finsbury.—Councillor: Mr. E. Jones, M.R.C.S. Eng., L.R.C.P. Lond. (Chairman of the Public Health Committee).

Fulham.—Councillor: Mr. E. Cooney, L.R.C.P. Edin., L.F.P.S. Glasg., L.S.A., D.P.H. Camb.

Greenwich.—Mayor: Surgeon-Lieutenant-Colonel R. Gooding, V.D., M.D. Lond., M.R.C.S. Eng., J.P.

Hackney.—Aldermen: Mr. F. H. Daly, M.D. R.U.I., L.R.C.S. Edin., J.P., and Mr. T. Hoskin, L.R.C.P. Lond., M.R.C.S. Eng., J.P. Councillors: Mr. J. O. Adams, M.D. Durh., F.R.C.S. Eng., Mr. F. M. Miller, M.R.C.S. Eng., L.R.C.P. Lond., Mr. F. Wallace, L.R.C.P. Lond., M.R.C.S. Eng., and Mr. M. E. A. Wallis, L.R.C.P. Lond., M.R.C.S. Eng.

Hammersmith.—Councillors: Mr. O. C. Coker, L.R.C.P. Lond., L.S.A., and Mr. W. A. Davidson, L.S.A.

Hampstead.—Councillors: Mr. E. C. Andrews, M.D. Lond., M.R.C.S. Eng., Mr. C. W. Cunnington, M.R.C.S. Eng., Mr. A. O. Grosvenor, M.D. Edin., M.R.C.S. Eng., and Mr. F. E. Scrase, F.R.C.S. Eng.

Holborn.—Councillor: Mr. W. R. Smith, M.D. Aberd., F.R.S. Edin.

Islington.—Councillor: Mr. John Walker Smyth, L.R.C.P., L.R.C.S. Edin.

Kensington.—Councillor: Mr. F. H. Alderson, M.B. Durh., M.R.C.S. Eng., L.R.C.P. Lond., and Mr. E. D. Vinrace, M.R.C.S. Eng.

Lewisham.—Alderman: Mr. J. W. Elliott, M.R.C.S. Eng., (retired). Councillors: Mr. F. J. L. Hart, M.B., C.M. Edin., Mr. F. S. Smyth, F.R.C.S., L.R.C.P. Edin., and Mr. H. Visger, M.R.C.S. Eng., L.S.A.

St. Marylebone.—Councillors: Mr. L. A. Bidwell, F.R.C.S. Eng., and Mr. J. Edmunds, M.D. St. And., M.R.C.P. Lond., M.R.C.S. Eng.

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