proved by the large numbers that leave India for pilgrimages to Mecca, etc., notwithstanding that it is well known that a portion of them never live to return to their homes. No amount of cholera at Hurdwar or elsewhere would deter a Hindu pilgrim from undertaking the journey, and the only way this could be discouraged would be by breaking up the fairs if there is already an actual outbreak, or else, if there is a threatened outbreak, to restrict the railway companies from taking any more pilgrims to such fairs. If the latter object is achieved, one can confidently anticipate preventing not only many untimely deaths, but also the spread of the disease.

The next point that claims attention in Dr. Colah's paper is the sanitary supervision of the pilgrims after they have left the infected areas. The vast extent of the country and the long distances and inaccessible localities from which the pilgrims are drawn, must of necessity preclude any such stringent supervision as was adopted in France last year with regard to people entering that country. The measures adopted there consisted, at first, of the separation of the apparently healthy from the suspicious or actually diseased cases. The former, after thorough disinfection of the person and belongings, were given a passport inscribed with the information as to where they had come from, their destination, etc., and on reaching which it was made incumbent on all, under pain of severe penalties, to present the passports to the sanitary authorities of the town, who, after further examination, took down the addresses of the new arrivals. For some days they were under a sort of sanitary surveillance, and were daily visited by a commissary, who reported the state of health from day to day until the period of incubation of the disease had expired.

It is not possible in India to devise such stringent measures, but we dare say some modification of this system of sanitary inspection is absolutely necessary to check the further spread of cholera if transported to an unhealthy and unfavourable locality.

In connection with this subject we might quote Mr. Ernest Hart again, who says that the sanitary administration of India requires to be radically remodelled, and suggests that an Imperial Sanitary Department should be attached to the Government of India, that each provincial Government should have a provincial Sanitary Department, and that each Municipality or District Board should have a local Sanitary Department. Until some such system is organized, there is hardly much chance of the present state of affairs improving, and if Mr. E. Hart, with the aid of the powerful Association at his back, would move either the House of Commons or the Secretary of State for India, he would earn the gratitude of the teeming millions of India. — *Indian Medical-Chirurgical Review*.

INFANTILE MORTALITY IN BIRMINGHAM.

By ALFRED HILL, M.D., Medical Officer of Health.*

It must strike the mind as very remarkable that the improvement in the general sanitary condition of the town during the past nineteen years—which has had the effect of lowering the general death-rate very considerably—has had no perceptible influence on the infantile death rate (*i.e.*, the proportion of deaths under one year of age to 1,000 births). This is clearly seen from the following figures:—

Birmingham.	Infantile Death rate.	General Death-rate.
Average of 9 years, 1873-81 ...	169	23·5
Average of 10 years, 1882-91 ...	169	20·6

It will be seen that while the general death-rate was reduced by 2·9 per 1,000 persons living—a reduction equal to 12 per cent.—the infantile death-rate showed no reduction whatever. If the infantile death-rate had decreased at the same rate as the total death-rate it would have fallen to 148 instead of remaining at 169.

The figures for London and for England generally are similar, though they show some slight reduction in the infantile death-rate; thus in London in the same periods as I have taken for Birmingham the general death-rate fell 8 per cent., while the infantile death-rate fell only 2 per cent. In the whole of England the total death-rate decreased 8 per cent., while the infantile death-rate decreased only 1 per cent.

It appears from these figures that in Birmingham the infantile death-rate has remained unaffected by the public measures taken to improve the health of the community; while in London and the whole of England sanitation has effected only a very slight reduction in the infantile mortality.

The infantile mortality per 1,000 births in each of the 16 wards of the old city was calculated, and it was found to range from 240 in Market Hall to 119 in Edgbaston.

The results of the inquiry as to the employment of mothers from home, the suckling of the infants, and infant life assurance are shown in tabular form. In the whole City in 157 cases, or 13 per cent., the mother was employed away from home; in 472 instances, or 39 per cent., the infant was not suckled; and in 435 cases, or 36 per cent., its life was insured.

The figures are, to a certain extent, curious. They show that, looked at generally, the wards where the infantile death-rate is the higher are those in which a larger proportion of mothers of the children who died in infancy during 1891 worked away from home, and a larger number of such infants were insured. This is what might be expected. But they also show that these same wards are those in which the smallest percentages of infants were hand-fed, a condition of things

* From Dr. Hill's Annual Report for 1892.

which certainly would not have been anticipated. It would have been expected that the infants deprived of the natural and best food—the mothers' milk—and fed artificially, would have predominated in the wards having the highest infantile mortality, this being more in accordance with general experience, and the doubt naturally suggests itself that the information given on this point is inaccurate, for while milk is said to have formed a considerable proportion of the substituted food, my own experience, and that of others, is that very little milk—often none at all—enters into its composition.

In the inquiry which has just been concluded, 1,937 houses in which infant deaths had occurred were examined.

Only one conclusion can be drawn from this inquiry. It is that the sanitary conditions to which attention has been directed cannot be shown to have had any evident connection with the infantile mortality.

It may be that they affect health, as no doubt they do, at this period, but that their effect on life is not exerted until a later period.

In order to ascertain the class incidence of infant mortality, I inquired into the social standing of the parents of the 1,222 infants whose deaths have been the subject of inquiry, and found that while only four occurred in the independent or professional classes, 134 occurred in the trading or commercial class, and 1,084 in the class embracing artisans and all others.

Having considered the infantile deaths in connection with their distribution in the different wards of the city, the employment of the mothers, the kind of food of the infants, the sanitary conditions of the houses and premises, water supply, and incidence of the mortality upon different classes, it will be advisable to inquire into the character of the diseases which prove fatal in the first year of life.

A glance at the various groups of diseases shows at once that diseases of the digestive organs, numbering 1,072, greatly preponderate over those of any other organ, and constitute no less than 41 per cent. of the whole. This is pretty near, but lower than the figure for England and Wales, which is 43 per cent. That for France (but not for the corresponding year) was stated to be 40 per cent., while for Norway it was only 12.5 per cent. When we remember that in Norway mothers universally suckle their own children, while in France and England the case is very different, and not only so, but that the substituted food is frequently of the most innutritious and indigestible character, the difference in the mortality between Norway and the other two countries named is easy to understand.

Undue exposure to cold is no doubt a prolific cause of infantile mortality, as is shown by the number of deaths from bronchitis and pneumonia; but this can be avoided with care. It is stated by

Dr. Finkelnburg, of Bonn, that the rate of infant mortality in Norway is 106, and in the Faroe Islands only 86 per 1,000, against 171 in Birmingham. But in Iceland, with a similar climate but doubtless much less care, the infantile death-rate is 295. This difference appears strange, and must evidently depend on something independent of temperature. The explanation is that, while in Norway, as I have stated, children are universally, in Iceland they are rarely, suckled. Possibly this want of care in regard to feeding may extend also to the degree of protection from cold which is afforded to infants in the latter country. But I have no doubt that the difference in mortality results principally from the method of feeding, as an enormous array of facts goes to show the paramount influence which it exerts on infantile health and life. The improper feeding of children is practically slow starvation; it is the cause, in some cases, of the death of all the children of a family, and frequently of the greater proportion of them. Privation of breast milk and improper feeding are not only answerable for infantile sickness and death, but their effects are seen in after-life in imperfect development and inferior physique. Thus Dr. Finkelnburg states that at the Congress of Hygiene at Paris in 1873 it was asserted that in France the sons of wet-nurses were largely rejected as army recruits.

That infant mortality is influenced to a pre-eminent degree by the method of feeding is shown by its diminution under some exceptional conditions of trade depression, and other causes of social misfortune. It was observed at the time of the Lancashire cotton famine that while the adult death rate was enormously increased, even doubled, that of infants was reduced in an almost inverse ratio. Dr. Finkelnburg states that the Siege of Paris afforded a similar illustration. The statements appear paradoxical, but the explanation is very simple. In peace and prosperity mothers neglect their children in one way or another; in war or adversity they are able, though suffering more themselves, to give attention to, and more especially to suckle, their offspring.

I think it may be considered that social rather than sanitary agencies must be looked to for effecting the desired reduction in infantile mortality. The wards in which more mothers are employed away from home, in which more infants are insured, and in which the infantile mortality is highest, are the wards whose inhabitants are lower in the social scale, and it seems to me that the figures point to the social position as the most constant factor in the causation of infant mortality. It has indeed been estimated that the rate of infant mortality among the bulk of the English population is fully double that which prevails among the middle and upper classes of society. The chief causes of such mortality in Birmingham are diarrhoea, convulsions, debility, etc., suffocation, bronchitis, pneumonia,

whooping cough, and premature birth. With the exception of the last one, all these causes of death may be considered to be largely due to neglect. This neglect may be of two kinds; the culpable neglect of those who know how to manage children properly, but fail to do so; and neglect arising from ignorance. As regards the former it is difficult to see what is to be done regarding it, except the infliction of punishment when discovered and proved, which is very difficult. To remedy the neglect arising from ignorance several means suggest themselves. Among them may be mentioned the teaching of the principles which should govern the management of young children, both in health and sickness, to girls in elementary schools; free lectures to women on the same subject; and the issue of a handbill giving concise directions as to feeding and nursing infants to persons who register births. Without question, also, everything which tends to raise the intelligence, the social condition, and the moral tone of the various classes of society will tend to extend the probabilities of infant life. There can be no doubt that the visitation of the homes of the poor by ladies who would interest themselves in this question, and would give simple advice and practical instruction upon the feeding and nursing of infants, would be of great benefit. It seems possible, too, that something might be done in the same direction by medical practitioners when advising other members of households. It is, I feel sure, only by such means as these—means calculated to dispel the ignorance and correct the erroneous ideas which so largely prevail—that a substantial diminution in the deplorable loss of infant life can be effected.

The establishment of crèches, well conducted and properly regulated, would prove valuable, especially in proportion as they led to the diminution of those wretched nurseries where poor children are huddled together in impure air and fed with improper food. The regulation of infant life insurance might also be undertaken with advantage to infant health and life, as there can be no doubt that this class of insurance is subject to great abuse.

An impression seems to have become prevalent that in respect to infant mortality, Birmingham occupies an exceptionally bad position. This is by no means an accurate appreciation of the facts. During the year under consideration the 28 large English towns as a whole had an infantile death-rate of 167, while that for Birmingham was 171, so that our City was but little worse than the large towns as a whole. Moreover, one of these towns, Preston, had an infantile death-rate of 227; another, Leicester, one of 214; and a third, Blackburn, one of 204; while 15 of the towns reached a higher figure than Birmingham. It appears therefore that while the mortality in infants is undoubtedly high in Birmingham, as in other towns, our City occupies a moderately good position in comparison with other large centres of population.

"FISH" AND "FISH" INSPECTION.

By J. LAWRENCE HAMILTON, M.R.C.S.

FOR present purposes the following five headings require to be carefully considered in reference to the subject of fish inspection.

- (1) Biblical and historical.
- (2) Present state of our fish-shops, stores, markets, and fish ports or districts, and
- (3) Preventable diseases associated with our present faulty fish supply.
- (4) Fish frauds.
- (5) Remedies.

Before proceeding any further it is necessary to understand the exact meaning of the word "fish" as used in this article.

"FISH" DEFINITIONS.

(1) For practical purposes and for those of this paper, "fish" includes aquatic and amphibian animals generally, as well as their products used or capable of being used for food.

(2) Except where specially stated or implied, I here use the term "fish" to represent food derived from dead aquatic and amphibian animals.

Biblical.—Accepting the accredited views of the ancient Egyptians, among whom as a *quasi* royal prince he spent his early life, Moses considered certain kinds of "fish" and other foods as the producers of "leprosy."

The biblical leprosy evidently included almost every kind of skin disease and skin rashes generally.

Hence Moses forbade the Jews to eat "fish" without fins and scales, oysters, shell fish, turtle, tortoise, etc.

Like the ancient Egyptians, Moses also believed that neither "fish"—aquatic and amphibian animals—nor insects and reptiles possessed any blood. Indeed, these erroneous views seem to have not alone been endorsed by the Rabbis, who composed the Talmud, but even now by too many Jewish clergy at home and abroad still alive.

Whilst Moses forbade the Jews eating hares, rabbits, pigs, and all creeping animals without wings, probably because these foods were then supposed to produce "leprosy" or other diseases in man, nevertheless he allowed his peculiar people flying creeping things, including such dirty insects as beetles, locusts, scorpion, grasshoppers, etc.

Indeed, the mere touching or carrying of the carcass of any animal considered unclean made the man and his clothes unclean until the evening, and until after he had thoroughly washed himself and his clothes. The Jews are also forbidden to eat the blood of beast or fowl. (See Leviticus xii., xi., xiii., and xiv.)

Historical.—The subject of fish inspection early engaged the attention of our forefathers.

Dated 1272 by a statute of Edward I., no fishmonger was allowed to water his fish more than once.

No fresh fish was to be kept in London beyond

the second day from its capture; nor was any bad fish to be sold.

In 1382, "Reynald atte Chambre brought in maliciously herrings and mackerel corrupt and unwholesome for man," for which the Mayor and Alderman put him in the pillory for six days, and burnt his fish beneath him, as was then the custom of the City of London in like cases.

About the same time, John Welburgham, who kept a fried fish shop in Bread Street, London, for selling two pieces of cooked conger eel, "rotten, stinking, and unwholesome for mar," to four countrymen, who went to dine at his house, they had the fish taken to Guildhall. There a jury of cooks, good men and true, were sworn to smell the fish, and by their verdict Welburgham was put into the pillory and his stock of fish burnt under him.

Compiled probably somewhere about 1419, or earlier, it was enacted by the *Liber Albus* that "No fishmongers shall be so daring as falsely to dub their baskets, or to make a show of desirable fish at the top of the basket, and undesirable fish of little value beneath.

On being attainted, such a "dubber" shall forfeit his fish to be burnt with fire in the Chepe—now Cheapside—in London. Such a dubber shall be held a cheat, and imprisoned therefore."

In 1499, by 19 Henry VII., a trade search was to be made quarterly, or oftener, as need should require, by the Wardens of the Fishmongers' Company, who were to perambulate the whole City and suburbs for corrupt and unseasonable fish.

The Mayor for the time being was to punish and correct delinquents, according to the laws and customs of the City.

These laws were confirmed by the charter of James I., in 1604, to the Fishmongers' Company.

Officially printed in 1620, "The Laws of Market" of the City of London enacts that "no unwholesome or stale victual was to be sold. Each offence to be punished by a penalty of forty shillings, and forfeiture of the victual.

The 1668 bye-laws of the Fishmongers' Company, which laws the company professes to have religiously carried out from that date to this, its trade duties include the prevention of the sale of over-day, that is, fish over a day, or 24 hours, old, by "oasts," hosts, inn-keepers, or eatinghouse-keepers, within a radius of 12 miles of Billingsgate Market.

If the Fishmongers' Company were to enforce this law, the sale or distribution of bad fish in Greater London and in its markets would be impossible.

It appears that on January 14th, 1685, by 16 Charles II., the charters of the Fishmongers' Company were surrendered, but these were subsequently restored and confirmed.

Offensive fish markets and fish shops, stationary or perambulating costermongers, evidently come

under the section of offensive trades, exposing the delinquent to a first penalty of a sum not exceeding £2, and subsequent convictions may even for a single offence amount to £200.

The Public Health Ships Act, 48 and 49 Victoria c. 35, 1885, confirms section 110 of the 1875 Public Health Act, extending the powers so as to bring ships within the jurisdiction of the local authority in which the ship is lying. This would evidently bring all fish-carrying vessels under the jurisdiction of the Public Health Acts of England.

By the 1890 Public Health Acts Amendment Act and the 1891 London Public Health Act, any solid or liquid article or animal intended for the food of man exposed for sale, or deposited in any place for the purpose of sale, or in preparation for sale, may be seized, and if found diseased, unsound, unwholesome, or unfit for the food of man, the medical officer of health, the inspector of nuisances, or their representatives, may seize, condemn, and destroy the said article or animal.

For every such improper article exposed or prepared for sale, etc., the would-be vendor or food preparer seems liable to a fine of £50, or else a term of imprisonment not exceeding six months, with or without hard labour.

THE PRESENT STATE OF FISHING PORTS, FISH SHOPS, STORES, AND MARKETS.

Fishing ports or districts and fish shops, stores, and markets are proverbial for their abominable smells and worse sanitary arrangements.

The Plague in Astrakhan.—Astrakhan is the seat of the sturgeon and its caviare industries. The following remarks quoted from my papers in the "Practitioner" of 1880 show how foul fish may foster "filth" fevers.

During the winter of 1878 and 1879 the plague visited Astrakhan.

Towards the latter half of November the real winter in Astrakhan begins, when its rivers are frozen over, whilst the temperature is often some 10° Reaumur below the freezing point of water.

In Astrakhan province most of the people seem well to do, but a fearful want of general cleanliness is here as strikingly characteristic as in other parts of Russia. In the city of Astrakhan most of the streets are devoid of pavement. There are no fresh water springs, and the water supply is drawn from the fouled branches of the Volga.

The labourers employed in fish salting exist under miserable conditions. In many places they dwell in cavities hollowed in the earth or in caverns. The price of bread being beyond their means, they subsist chiefly on the leavings of the inferior parts of the prepared fish.

Formerly Government rules enforced that the unused remains of the prepared fish should be thrown directly into the water, but now these, collected and accumulated in masses, are left to

rot in and about the banks of the rivers, under the heat of sometimes an almost tropical sun.

Further, the vats used for salting fish are never properly and systematically cleaned. It is the custom merely to add more salt from time to time. The local atmosphere is further vitiated by many fat-boiling, fish oils, blubber, isinglass, etc., works.

During the five years preceding the outbreak of the plague in 1878, enteric fever, measles, and small-pox had been epidemic, whilst scarlet fever raged in 1876 and 1877.

Previous to 1878 the town of Astrakhan during the last twenty-two years had suffered nine epidemic attacks of cholera, and three of enteric fever.

Further statistics or observations of the twelve years ending 1878 recorded only one birth for every 36·5 persons, whilst one death took place for every twenty-one inhabitants of Astrakhan; or, in other words, owing to preventable diseases due to avoidable filth, the population of Astrakhan would gradually become extinct were it not continually recruited and increased from external sources.

Similarly Iceland furnishes a familiar example of fishy filth, causing extensive disease.

FISH AND CHOLERA.

Unfortunately the present outbreaks of cholera at Grimsby and at Hull—our largest fishing ports—further confirm the association of avoidable fishy filth and preventable disease.

On September 4th, 1893, at Bradford, a fish hawker, John Walmsley, died apparently from cholera. On September 2nd he had obtained a consignment of mussels from the cholera infected port of Grimsby—Cleethorpes.

At Rotherham, on September 6th, Burnand died of cholera, having on September 5th visited Grimsby. He had been fishing the day previous to his death.

On September 8th, at Doncaster, Hepworth, of Leeds, died of cholera, having recently eaten oysters from Cleethorpes in the port of Grimsby.

At Leicester, on September 10th, a woman living at a fish and oyster shop died in a few hours, apparently of Asiatic cholera.

On September 14th, at Mansfield, Notts, the wife of a fishmonger named Coleman died within twenty-four hours of cholera.

The cockles and mussels in and about Grimsby and Cleethorpes are stated to be more or less sewage fed from the filth of this great fish trade centre.

On September 22nd, at Newcastle, Thurgate, a fish-hawker died of Asiatic cholera, which he had previously fatally communicated to his friend and neighbour, Platten.

Of all food traders, the fishing populations are the most slovenly and dirty in their habits, over-

crowded in their dwellings, and therefore more prone to endemic as well as epidemic affections.

For, altogether apart from the manner in which inoculation occurs, cholera, jail-fever, virulent small-pox, typhoid, typhus, diphtheria, leprosy, and the "plague," etc., have been always associated with poverty and avoidable filth.

Unwholesome food and dirty surroundings diminish our resistance to these infectious diseases, against which a healthier, stronger condition, obtainable by superior sanitary social surroundings and good food, becomes immune or free.

When light is thrown upon the present state of Grimsby and Hull—fishing ports of great importance—we find that their sanitation is very imperfect, that the fish trade has remained in its old-fashioned unhygienic ways, and that poverty has increased owing to the recent strikes.

No wonder that these ports should form an apt *nidus* for disease. And, digressing for the moment, let me point out that in ports like Hull and Grimsby, not only should we be exercised in preventing the entry of a *contagium vivum* from a foreign infected port, but also much more by internal sanitation dealing with our food, refuse, secreta, etc., we should prevent the origin of individuals getting sporadically or separately diseased.

Taking for granted that specific bacteria have been latent or dormant,

"SPORADIC" DISEASE

suggests that local filth and other local causes are alone sufficient to produce and originate disease, apparently without any direct infection by infected persons, or by infected imported clothing, rags, etc.

Unless this view be accepted, there appears to be no reasonable or rational explanation of sporadic disease, as of course in these Darwinian days of evolution no sensible person believes in "spontaneous" generation.

It is probable that the cholera bacteria may have been introduced last year or years ago into Grimsby and Hull, where the germs remained dormant till increasing filth and poverty, both augmented by the recent local strikes, caused the cholera bacteria to infect some of the people at these seaports.

Whilst in strong, robust health, Pettenkoffer experimentally swallowed a lot of cholera bacteria, which practically caused him no inconvenience. Had he then been in ill-health this dose of cholera bacteria would probably have killed him.

No one can tell, therefore, that last year, or years ago, the inhabitants of these places and of other insanitary fishing towns have not had mild attacks of cholera.

Tetanus, or "lock-jaw," essentially a dirt disease, is always with us, yet the tetanus microbe can only thrive in the absence of air, a circumstance which, one would think, would tend to have long since caused the extinction of tetanus.

FISHING DISTRICTS AS "HEALTH" RESORTS.

Especially in the United Kingdom, practically our leading fishing districts are more or less "health" resorts; thus, for all intents and purposes, Brighton is a railway suburb of London.

It is therefore evident that the healthy condition of our seaports immediately concerns the inhabitants of our inland towns and districts.

In the 1893 cholera epidemic, many visitors to Cleethorpes, in the port of Grimsby, took cholera at this seaside "health" resort, and carried the disease to various inland towns and places.

(To be continued.)

REPORTS OF MEDICAL OFFICERS OF HEALTH.

COUNTY OF LANARK.

DR. McLINTOCK, in his annual report for 1892, draws attention to common sanitary defects:—

No Drains.—"In a great many villages, particularly miners' villages, there are no drains connected with the houses. As a result, all slops, refuse liquid, and, not infrequently, fecal matter, are emptied on the soil immediately adjoining the dwelling-houses. This goes on for years, and the inevitable result is that the whole neighbourhood is polluted with filth. Where the water supply is derived from wells, contamination must take place, with the certainty of subsequent outbreaks of enteric fever and diphtheria."

No Rain-water Guttering and Pipes.—"All over the county I have been struck by the absence of any provision for carrying off rain-water on many of the houses. The natural consequence is that the rain-water drips month after month, year after year, into the foundations, giving rise to damp walls and floors. The inevitable result is rheumatism, with its concomitant evil of heart disease, predisposition to phthisis, bronchitis, and a host of other ills."

City Manure.—"Over the whole county Glasgow sends daily tons of privy and ashpit refuse by rail. The trucks containing this are shunted into the ordinary sidings in close proximity to the railway stations, and there emptied. During the process of emptying a most intolerable stench frequently arises, and where, as at Lenzie, the siding is not far removed from dwelling-houses and shops, a most dangerous nuisance is, in my opinion, created. The danger does not end here. In many instances the farmer to whom this manure is consigned either deposits it in a convenient place near a road or spreads it over his fields, often close to the public highway or near a water supply. I am strongly of opinion that epidemics of infectious disease, particularly diphtheria, have been fostered by this city manure. There is no doubt that each community ought to take measures for the destruction of this vile stuff inside its own boundaries, and not inflict the filth on its neighbours."

OLDHAM.

Dr. Niven, in the course of a report to the Sanitary Committee on cholera precautions, recommended that a house to house visitation should be made throughout the town. They would require for that several other inspectors, but they could engage them for twelve months. Councillor Waddington: There is no provision for that in the estimates. Dr. Niven: And there is no provision for the cholera in the estimates either.

Notification of Measles.—While agreeing with this, Dr. Niven is of opinion that the end may be gained at considerably less expense. He proposes that the school visitors be paid for lists of cases sent in, and that it be part of the inspector's duties to carry instructions to the houses affected, and to see that they are carried out. The difference between this proposal and the method of procedure at present in use in Oldham is that in addition to the instruction at present imparted by the school visitors, the inspectors would see to the instructions being carried into effect, and would also try to trace the cases not caught in the school net. Voluntary notification by school visitors has however been tried in other towns, and the result of the experience acquired is that the information is received several days, or even a week after the appearance of the rash, thus greatly diminishing its utility.

WANDSWORTH DISTRICT.

The joint reports of the four medical officers of health for this district, and the separate report for each sub-district are before us. The following remarks are from the general report:—

Diphtheria.—The increased mortality from this disease is associated, it must be remembered, with steady and great improvement in sanitary conditions generally, so that we are almost driven to the conclusion that the spread of it is principally due to direct infection. It is certainly the case that at present it is not popularly regarded as being in at all the same category, as regards infectiveness, with scarlet fever, and probably isolation is not insisted on sufficiently long in many instances. We are often requested to disinfect houses a few days after the case has been notified, but it by no means follows that infectiousness has ceased the moment the throat has apparently cleared up. The removals to hospital were 88, or 36·3 per cent. of the total number of cases. The mortality of the hospital cases was 23·8, and of those that remained at home 23·3 per cent. If we assume, as is certainly the case, that the cases removed to hospital were more severe on the average, this result is interesting as showing that removal to hospital on the whole increases the chances of recovery.

Dr. Field, in his report for the Clapham sub-district, says:—

Underground Rooms.—"These are now under the jurisdiction of the Board, when occupied separ-