

[Report of the Medical Officer of Health for Fulham].

Contributors

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BOARD OF WORKS
FOR THE
FULHAM DISTRICT.

THIRD
GENERAL REPORT,

TO 25TH MARCH, 1859;

THIRD ANNUAL REPORT OF MEDICAL OFFICER
OF HEALTH:

ABSTRACT OF ACCOUNTS, &c., &c.

HAMMERSMITH:

PRINTED BY J. THOMPSON, "WEST LONDON OBSERVER," BROADWAY.

1859.

OFFICERS

OF THE

Board of Works for the Fulham District.

1859—60.

BOARD.

FULHAM.

Barr, H., Mr., Sands End.	Hamilton, J., Mr., Dorcas Terrace.
Cox, G., Mr., Lillie Road.	Johnson, R., Mr., Kensington Hall.
Cooper, T., Mr., Wimberley House.	King, W., Mr., High Street.
Coxhead, J., Mr., Myrtle Place.	Lammin, W. H., Mr., The Shorrolds.
Flicker, E., Mr., Church Street.	Matyear, W., Mr., Crab Tree.
Guazzaroni, J. J. Mr. Bedford Cottage	Thatcher, W., Mr., Dorcas Terrace.
Gosden, F. H., Mr., Vale Place.	Watts, C., Mr., High Street.
Harwood, Capt. E., Sands End.	

HAMMERSMITH.

Ayres, C., Mr., Broadway.	Landon, W., Mr., Inver Villa.
Betteridge, D., Mr., Ravenscourt Pk.	Morison, W., Mr., Broadway.
Bird, W., Esq., Brook Green.	Neale, H., Mr., Gold Hawk Terrace.
Bernard, J., Mr., Fulham Road.	Osmond, S., Mr., King Street.
Crookes, J., Mr., Brook Green.	Philippart, Sir John, College House.
Clark, F. L., Mr., King Street.	Pope, E. B., Mr., Bridge Road.
Fitchew, W., Mr., Willoughby House.	Prince, W., Mr., King Street.
Gould, A., Mr., Angel Terrace.	Stevens, V., Mr., Brook Green.
Hunt, J., Mr., Broadway.	Smith, T. M., Mr., Vimiera House.
Halsey, H., Mr., Alpha Villas.	Walmsley, E. B., Mr., The Mall.
Hurst, J. J., Mr., Brook Green.	Wells, W., Mr., Brook Green.
Jordan, T. H., Mr., King Street.	Yeldham, J., Mr., Fulham Road.

Representative to Metropolitan Board.

Mr. V. Stevens, Brook Green, Hammersmith.

Medical Officer of Health.

Mr. F. J. Burge, New Road, Hammersmith.

Surveyor.

Mr. A. C. Bean, Shaftesbury Road, Hammersmith.

Clerk.

Mr. W. Lovely, Bridge Avenue, Hammersmith.

Inspectors of Nuisances.

Mr. W. H. Richmond, Walham-green | Mr. W. Lawrence, Broadway House.

BOARD OF WORKS FOR THE FULHAM DISTRICT.

THIRD GENERAL REPORT TO THE 25th OF MARCH, 1859.

Pursuant to the 198th Section of the Metropolis Local Management Act, 1855.

The Board of Works for the Fulham District present to their Constituents the following Report of their proceedings for the year ending March 25, 1859.

During the year application was made to the Public Works Loan Commissioners for the second portion of the Loan to which reference was made in last year's Report, and having obtained such portion, viz. £5,000, they expended the same in proportions as follows:—£3,000 in the Parish of Hammersmith, and £2,000 in the Parish of Fulham in the performance of the following Works:—

HAMMERSMITH NEW PAVING.

	Fect.
South Side, King Street, from the "Hampshire Hog" to the "Black Bull," about	4,400
Bridge Road, both Sides	2,100
Albion Road, from near the "Thatched House" to the "Seven Stars"	1,300
Angel Lane, East Side	400
Middle Mall, near Mr. Clarke's, and by the "Doves"	400
Total Length	9,600

OLD PAVING.

High Road, from New Road to Grove Place	650
Hog Lane	800
Waterloo Street to "The Doves"	560
Ship Lane	350
Queen Street	2,200
Church Lane and Rose and Crown Lane	1,200
Brook Green Place and Passage	800
Total Length	6,560

Paths kerbed; Wood Lane, Farm Lane, and Part of St. Peter's Square. **Total Length** **3,370**
 And the Works in Progress (when the last Report was made), in King Street, New Road, and Brook Green have been completed.

FULHAM—NEW PAVING.

	Fect.
Portland Place, about	100
North End	6,200
Fulham Town, West Side	900
Ann's Place	100
Total Length	7,300

King's Road, with Old Paving **750**

And the Works in progress when the last Report was made from Walham Green to Stamford Bridge have been completed ; sundry improvements made to paths in Dawes Lane, King's Road, and other places with old Boulder Stones and Kerbing ; and several road crossings have been laid.

Your Board intimated last year their intention to thoroughly investigate the question of the drainage of the district at the earliest possible period. They have now to state that having instructed their Surveyor, he has presented to them an elaborate Report, accompanied by plans and sections for the construction of sewers in the following places ;—viz :

Hammersmith.—Wood Lane, Brook Green Lane, Brook Green and Masboro' Road, Stamford Brook Diversion, New Road, West of Albion Road, New Road, East of Albion Road, Bradmore, King Street, West of Cambridge Road, King Street, East of Cambridge Road, Waterloo Street, Beaver Lane, King Street East, and High Road, Brook Green Branch, Brook Green Place, and Fulham Road, at the estimated cost of £27,248, 16s.

Fulham.—North End Line, Sun Street, High Street, Parson's Green Lane, Peterboro' Road, and King's Road, at the estimated cost of £12,152, 19s. ; or a total for the District, of £39,401, 15s.

Your Board in the firm belief that a systematic plan of Sewerage is absolutely required, and that the District will not rise in importance as compared with others in the Metropolitan Area, unless such plan be carried out, have therefore referred the Surveyor's Report and Plans to the Chief Engineer of the Metropolitan Board, to ascertain if such a mode of drainage can be adopted in connection with the Great Metropolitan Main Drainage and Intercepting Scheme, with a view to the further consideration of the matter so soon as Mr. Bazalgette's opinion shall have been obtained.

With respect to the present Sanitary Condition of the District, they beg to direct attention to the annexed Report of the Medical Officer of Health. The following details will exhibit some portion of the work performed by the Sanitary Committee.

SANITARY OPERATIONS IN FULHAM.

Privies Emptied	...	...	...	115
" Repaired	...	...	...	10
" Emptied, trapped, and panned with water supply	...	...	...	9
" Water Supply	...	...	...	1
" Drained	...	...	...	5
Drains Repaired	...	...	...	6
" Cleansed	...	...	...	32
Gullies Repaired	...	...	...	5
" Cleansed	...	...	...	5
Piggeries Cleansed	...	...	...	7
Pigs Removed	...	...	...	11
" Reduced	...	...	...	16
Houses Cleansed	...	...	...	16
Miscellaneous	...	...	...	44
				282

SANITARY OPERATIONS IN HAMMERSMITH.

Privies Emptied	...	...	...	72
" Repaired	...	...	...	17
" Emptied, trapped, and panned	...	...	...	3
" Trapped and panned with water supply	...	...	...	8
" Emptied, trapped, and panned with water supply and Drainage	...	...	...	22

„ Trapped and panned	...	...	16
„ Drained	...	...	1
Drains Made	...	...	2
„ Repaired	...	...	18
„ Cleansed	...	...	53
Gullies Made	...	...	4
„ Repaired	...	...	14
„ Cleansed	...	...	3
Dust Bins Cleansed	...	...	1
„ Heaps Removed	...	...	3
„ Cleansed	...	...	1
Pigs Reduced	...	...	4
„ Removed	...	...	11
Houses Cleansed	...	...	17
„ Repaired	...	...	1
Miscellaneous	...	...	29 — 300
Grand Total			582
Houses benefitted in Fulham	...	...	287
„ Hammersmith	...	...	258
			— 545

Your Board have ordered to be presented herewith an Abstract of the several Contracts entered into during the year; and also of their accounts which have been duly audited. They deem any extensive reference to their proceedings during the year superfluous, inasmuch as by the Metropolis Local Management Act, the accounts and proceedings of the Board are open to Public inspection, independent of the copious Reports, which from time to time have appeared in the Local Press. They, however, take this opportunity of expressing a hope, that their exertions in the improvement of the District will be appreciated by their Constituents.

*Abstract of Contracts entered into by the Board during the year ending
25th March, 1859.*

Mr. Coat for Paving and Masonry Works, at certain prices set forth in the Schedule, and embodied in the Contract.

Mr. Coat for Works of Slopping for the Parishes of Hammersmith and Fulham, for twelve Months, after the rate of £30 for each Parish.

Mr. Coat for Works of Cartage—at per day of 10 hours—in strong and well-made Carts attended by one man, and drawn by one horse, 6s. 6d. per day, or at the option of the Board at 1s. per journey average, to or from any part of the District. The man attending to assist in loading the cart.

Mr. Stapleton for the removal of Dust, Ashes, &c., from the several houses, yards, and premises in the Parish of Hammersmith, for twelve months, for £50.

Mr. Johnson, for the same work in the Parish of Fulham, for twelve months, for £40.

Mr. Mulcock, for the supply of the best grey pit flints for twelve months, after the rate of 5s. 3d. per cubic yard, to be drawn to any part of the District where required, and to be supplied in such quantity and at such times as the Board may direct.

Mr. Millwood for certain works of bricklaying, &c., for twelve months, at 30 per cent. less than the prices set forth in the Office Schedule, and embodied in the Contract.

Register of Mortgages on Rates authorised by the 18th and 19th Vict. c. 120, to be levied within the Parishes of Fulham and Ham-
mersmith, in the District of the Board of Works for Fulham District, in the County of Middlesex.

No. of Mortgage.	Date of Mortgage.	Amount of Principal sum Borrowed.	Rate per cent. of Annual Interest payable thereon.	Rate or Rates Mortgaged to secure re-payment of the Principal Sum Borrowed.	Time or Times fixed by the Mortgage Deed for Repayment of the Principal Sum Borrowed.		Purpose for which the Money was Borrowed.
					Date of Repayment.	Amount of Principal Sum to be repaid annually.	
No. 1.	25th day of November 1857.	£6,000.	5 per cent. per annum.	All, and every, the General Rates to be made and levied in the Fulham District, under or by virtue of the "Metropolis Local Management Act," and all other, the Monies and Rates, which the Board of Works for the Fulham District, are empowered to Mortgage for the purpose of securing the principal Monies and Interest intended to be thereby secured.	25th day of November, 1858, and on the 25th day of November in every succeeding year, until the whole of the monies thereby secured shall have been lawfully paid off and satisfied.	£300 for 20 years.	For the purpose of defraying the expenses incurred or to be incurred by the Board of Works for the Fulham District, in the execution of certain Works of Paving in the Fulham District.

Names and Descriptions of the Parties to the Mortgage Deed.		Signature of Clerk Authenticating the Register.	Reference Number to Transfer in Register of Transfers.	Remarks.
Mortgagor.	Mortgagee. Name, Description, and Place of Residence.			
The Board of Works for the Fulham District.	William Williamson Willink, of the South Sea House, in the City of London, Esq., Secretary to the Commissioners for carrying into execution an Act of Parliament made and passed in the Sessions of the 14th and 15th Years of the reign of her present Majesty, Queen Victoria, intituled an Act to authorise for a further period the advance of money out of the consolidated fund, to a limited amount for carrying on Public Works, and Fisheries, and Employment of the Poor, and the several Acts therein recited, mentioned, or referred to, and the Acts subsequently passed for amending, continuing or extending the same, and which said Commissioners are called "The Public Works Loan Commissioners."	W. Lovely, Clerk to the Board of Works for the Fulham District.		Interest to be paid annually, with the Principal, unto the Cashiers of the Bank of England, at their office, for the use of her Majesty, her Heirs, and Successors.

Entered this 25th day of November, 1857.

W. LOVELY, Clerk to the Board.

Register of Mortgages on Rates authorized by the 18th and 19th Vict. c. 120, to be levied within the Parishes of Fulham and Hammersmith, in the District of the Board of Works for the Fulham District, County of Middlesex.

No. of Mortgage	Date of Mortgage	Amount of Principal Sum Borrowed.	Rate per cent. of Annual Interest payable thereon.	Rate or Rates Mortgaged to secure Repayment of the Principal Sum Borrowed.	Time or Times fixed by Mortgage Deed for Repayment of the Principal Sum Borrowed.		Purpose for which the Money was Borrowed.
					Date of Repayment.	Amount of Principal Sum to be repaid annually.	
No. 2.	8th day of September 1858.	£5,000	5 per Cent. per Annum.	All, and every, the General Rates to be made and levied in the said Fulham District, under or by virtue of the "Metropolis Local Management Act," and all other, the monies and rates, if any, which the said Board of Works for the Fulham District, are by the last-mentioned Act, empowered to Mortgage for the purpose of securing the Principal Monies and Interest intended to be thereby secured.	8th day of September, 1859, and on the 8th day of September in every succeeding year, until the whole of the principal monies intended to be thereby secured shall have been fully paid off and satisfied.	£250.	For the Purpose of defraying the expenses incurred or to be incurred by the Board of Works for the Fulham District, in the execution of certain Paving Works within the Fulham District.

Names and Descriptions of the Parties to the Mortgage Deed.		Signature of Clerk Authenticating the Register.	Reference Number to transfer in Register of Transfers.	Remarks.
Mortgagor	Mortgagee. Name, Description, and Place of Residence.			
The Board of Works for the Fulham District.	William Williamson Willink, of the South Sea House, in the City of London, Esq., Secretary to the Commissioners for carrying into execution an Act of Parliament made and passed in the Sessions of the 14th and 15th years of the reign of her present Majesty, Queen Victoria, intituled an Act to authorize for a further period, the advance of money out of the consolidated fund to a limited amount for carrying on Public Works and Fisheries, and employment of the Poor and the several Acts therein recited, mentioned, or referred to, and the Acts subsequently passed for amending, continuing, or extending the same, and which said Commissioners are called the "Public Works Loan Commissioners."	W. Lovely, Clerk to the Board of Works for the Fulham District.		Interest to be paid annually with the Principal unto the Cashiers of the Bank of England, at their Office, for the use of her Majesty, her Heirs, and successors.

Entered this 9th Day of September, 1858.

W. LOVELY, Clerk to the Board.

FULHAM DISTRICT.

THIRD ANNUAL REPORT, OF MEDICAL OFFICER OF HEALTH, 1858.

PRESENTED TO THE SANITARY COMMITTEE, APRIL 21, 1859.

Gentlemen,

At a time when the Metropolitan District is just emerging from a period of more than usual mortality and sickness, it is not without interest that this my Third Annual Report should be presented to you. By this you will be informed how far they have affected the Fulham District, and be induced probably to consider what moral lessons are deducible therefrom. It is by reflection on such matters as these that the public eye is led to take a retrospect of events, and is at the same time carried forward to survey the probabilities and possibilities of the future, to reflect on the penalties already incurred, or to ponder on the dangers happily escaped.

It is well for that community which takes advantage of these seasonable warnings (perchance to others), neither indulging on the one hand in paralyzing despair, nor sinking into listless security on the other.

Sanitary Science and experience has full clearly proved to how great an extent the prevention of disease and its extention rests with us. It is not ours to rule the wind either in its force or its direction, neither have we power to regulate its temperature, its moisture, or its electricity. which exercise so great and manifest an influence on the human economy. It does, however, remain with us to see that none of our excreta or refuse be left to fester round our dwellings, that over-crowding in our cottages be prevented, domestic cleanliness enforced, unwholesome food prohibited from use, that good supplies of pure and wholesome water be provided, that Pigs and other offensive animals be not kept too near our houses, and that proper sewerage be constructed.

Neglect of these precautions has ever carried with it heavy penalties. The debilitating fever and the exhausting flux in this find pabulum to feed on. The poisonous atmosphere, loaded with exhalations, has done its work upon the system, and produced a fitting soil for the zymotic ferment to germinate in. It is by wrestling with these prægumal agencies that

sanitary medicine presents so strong a barrier to epidemic maladies. The Fulham District has not escaped some warnings. The Cholera Visitations of '49 and '54 have both found here their victims. Typhus and Scarlet Fevers have slowly gathered their votaries around them, and other preventible diseases have numbered many amongst their conquered. Preventive measures have, however, now fairly taken root amongst us, and although we have yet (as we are told), some plague spots unsubdued, many and vast improvements of a sanitary character have been accomplished. The position of the Fulham District on the western side of the Metropolis, the prevalence of western winds, with nothing to impede their action, a fine absorbing subsoil, immense open spaces and luxuriant vegetation, all tend to make it pre-eminently salubrious and genial. It is our fault if nature's gifts are wasted on us.

Many great and insurmountable difficulties, have arisen, and will yet present themselves in grafting new upon the old conditions of its social aspect, but it behoves all to lend a willing aid to the great work of reform, and though, from necessity, the chief onus of the change may fall at present on cottage property, it is but right that those who hitherto have fed their own resources by impoverishing others, should now in turn make good the public damage. Moderation and respect for rights have hitherto guided the Committee in the exercise of the powers vested in them by the Legislature, and if all that can be desired has not been fulfilled, there remains the satisfaction of knowing that you have avoided oppression. Nothing can possibly exceed the adverse circumstances existing in some parts against radical sanitary improvement. A population thickly imbued with Irish elements of the lowest denomination cannot otherwise than tend to offer difficulties of great magnitude in all attempts to promote its health and cleanliness. Cottages, out of number, constructed in the excavations of old brickfields, with the soft refuse bricks, at a period when attention to sanitary conditions was entirely unthought of; habitations run up in swamps and quagmires, and their foundations three parts of the year sopped with surface water, are poor materials to work on,

A steady and persevering supervision has, however, done much good, and all who take a dispassionate view of the condition of the District under your charge must admit that your labours and those of the Officers under your direction, have not been without results. It should be remembered that here we have to remodel an old system—a system on which has been for centuries engrafted by slow degrees all the undesirable elements we now wish to eradicate. It is by slow degrees alone that these can be removed. The authorities have sanctioned (and perhaps have had no power to prevent) the erection of property on sites perfectly unfit for human habitations; and the total absence of drainage to carry off the waste and surface waters renders it almost impossible in wet seasons to prevent occasional accumulations of mud and filth around them. As yet too the public, ay, and even some authorities, have to learn and put in practice the grand hygienic principle of striking at the root of Pauperism and sickness, by devoting more attention to the physical condition of the poor.

OVERCROWDING OF DWELLINGS.

The overcrowding of dwellings is one of the most pregnant sources of sickness and decay at all ages, and is unfortunately that, which under present circumstances, presents formidable obstacles to amelioration.

The Common Lodging-House Act has indeed worked wonders within its sphere of action, but there is a condition affecting the working classes, not coming within this statute, which demands deliberate and careful attention from the authorities. Frequent have been the pictures brought to light of such an amount of indiscriminate herding of the sexes as is truly fearful to contemplate. It is not only in the more densely peopled portion of the Metropolis that these cases may be found; the suburbs afford too many instances of a similar kind. In the course of last month only, during one of my periodical investigations in the Rookery, I found a most shocking disregard for decency, and proper separation of the sexes in several houses. Hundreds of like instances of moral turpitude may be discovered within our district, as also of those where the size of the apartments is totally inadequate to the number of occupants. Now, where lies the remedy? It is vain to look for its accomplishment by the poor themselves. The daily necessities of the labourer's family draw so heavily on his earnings as to leave only a very small sum for payment of rent, and hence the most limited house accommodation is sought for and endured. The initiative must be taken by the authorities or by those who take an interest in ameliorating the working peoples' lot. Fortunately, the statistics of almost every instance where the effort has been made, prove the self-supporting character of Institutions, specially provided as dwellings for the poor, and of thus laying the axe to the root of this corrupt tree. Until this desirable object can be more generally obtained, I believe considerable good might be accomplished by a legislative enactment, placing every house let out in weekly tenements to more than one family, under similar regulations to those affecting common lodging-houses, and rendering landlords liable for permitting overcrowding to exist upon their property. It is a fact worthy of note that although there are from 50,000 to 60,000 persons sleeping nightly in the common-lodging houses of London, there has not been for the last two years one case of fever engendered therein. From observation, I believe the next census will prove that an enormous addition has been made since 1851 to the labouring population of these united parishes. The cleansing and uprooting of some of the property of the kind above described in the nearer Metropolitan Districts, has forced large numbers of labourers into ours, and affords a strong argument for an equalization of the Poor-Rate, at the same time that it compels us seriously to consider how they are housed.

INFANT NURSERY.

In my last Report I had the honor of informing you that I had opened an establishment for the daily care of the infant children of poor women compelled to go from home to work. Through the whole of last year I toiled anxiously to extend the uses of this Institution. I have now the pleasure of assuring you of its success, and that twelve benevolent Ladies are lending me their valuable aid to enlarge its sphere of usefulness. During the year the number of admissions was 1,372, and the daily average is steadily increasing.

OPEN DITCHES.

It is a happy anticipation that on the completion of the Main Drainage Scheme we may look with confidence for the total exclusion of pestiferous

matter from open ditches, channels originally intended for surface water only, but which have been made receivers of every kind of filth. These are sources of incalculable mischief from which neither elevation nor any other condition can free them. I need only refer to a case of fearful mortality during the last year, which occurred in a house on Shooter's Hill. Four of one family cut off by scarlatina in three days, with nothing to account for such malignancy in that elevated situation, but an adjoining foul and open ditch.

TRADE NUISANCES.

There is a question, Gentlemen, which I believe so vitally affects the future sanitary condition of part of this district, that I cannot omit to mention it. I refer to the probable great extension of the process of brickmaking in the neighbourhood of the Gold Hawk Road, Hammersmith. The burning of bricks is attended with an evolution of gases of a most injurious character, and not only so, for the brickfields are generally also made the depositories for all the dust and refuse from your own locality as well as of that of the adjoining parishes, and a considerable portion of which is used in the manufacture in question. The notorious "Dismal Swamp," with its intensely poisonous exhalations, is nothing in extent compared with, and even the Soap Factory at Castelnau, in its worst features, cannot exceed the horribly sickening influences of the gases arising from this source. The stinking odours of the Thames in its most filthy state fall into insignificance in the estimation of those compelled to breathe these foetid emanations.

About twelve months since you had occasion to take proceedings against Mr. Axton for the removal of a large collection of dust and refuse, and for a discontinuance of the process of sifting the same in a field at the rear of the Gold Hawk Terrace. This deposit had been placed there evidently preparatory to the making of bricks. In consequence of your action before the Magistrate, this nuisance was suspended, but within the last few weeks the ground has been excavated to a considerable extent, and there is no doubt but that during the ensuing summer and autumn the whole neighbourhood will be polluted by the working of immense kilns. The injury to health and property from this cause is as yet incalculable, and already the inhabitants are seriously alarmed at the probable result. The field referred to embraces an area of several acres surrounded by inhabited houses, and extends even to the rear of the very centre of the Town of Hammersmith. It is computed that it will take several years to exhaust it of the brick earth, and during the whole time of its working it will prove a constant medium of annoyance. So importantly do I believe this will affect the well-being of a very large community that I consider no time should be lost in obtaining if possible an injunction to restrain it.

During the year in the adjoining Parish of Barnes, a Factory has been brought to work for the manufacture of Soap, and for Fat melting, &c. The latter is one of the most offensive trades known, and has never failed to create a nuisance of a most serious character, wherever established; indeed to such an extent is this the case that the most strenuous measures have every where been taken to dislodge them. The Factory of Messrs. Cowan is situate beyond the limits of the Metropolis Local

Management Act, but in such close contiguity to the Parishes of Hammersmith and Fulham as to be as prejudicial to them, as it is to that in which it actually stands. The authorities of Barnes have already taken action before the magistrate, and, I believe, intend to prosecute an indictment at the sessions, a proceeding which should receive every possible countenance and support from the authorities and inhabitants of the Fulham District. An order has been obtained from the magistrate compelling the proprietors to provide covered receptacles on the premises for the refuse from the works, and to prevent its being poured into an adjoining open ditch, communicating with the Thames. The Conservators of the river have also prohibited its flowing in any way thereto.

VENTILATION OF SEWERS.

The subject of the Ventilation of Sewers has occupied much of my attention during the last 12 months, and in conjunction with Mr. Bean, your Surveyor, I have been engaged in a series of experiments with reference to the deodorization of their gases.

On the 23rd of September last I presented to the Committee a Report upon this subject, which, as it has not been published, I beg permission to refer to and attach hereto.

Since the date of that Report, in consequence of its favourable reception by yourselves, the Board of Works have had constructed two cast-iron ventilators of the kind described. One of these has been placed in the Broadway, and the other in the Bridge Road, Hammersmith. Upon these I have for several weeks been making observations, but the season of the year has not been favourable for obtaining definite results.

From the tests, however, to which the apparatus has been subjected, I feel perfectly convinced the principle is that which offers the greatest chance of remedying the evils arising from the present ventilating shafts.

The results of my experience go to prove that the mechanical obstruction offered by the charcoal does not prevent the free and easy egress of the sewer air, a difficulty which, *a priori*, there was reason to fear would seriously militate against its use.

I am not in a position yet to give you more than an outline of my opinion as to what may be expected to be accomplished. It will require a patient series of investigations throughout the summer months to ascertain the full powers of the apparatus.

I may observe that the Broadway shaft presents the severest trial to which it can be subjected, constructed as it is over one of the largest sewers existing in the district, receiving an enormous quantity of sewage matter from an extensive area, and being immediately in contiguity with an old and very offensive sewer under Queen Street. It is worthy of remark that though the Bridge Road Sewer is continuous with that at the Broadway, and I believe, of the same dimensions, there is a concentration of fœtid gases emanating from the latter, not experienced from the former sewer; this may be accounted for from the fact, that in the sewers passing northward to Shepherd's Bush and eastward to Brook Green, from this point no ventilating shafts exist, neither is there any outlet for the gases in that portion of the old sewer between the Broadway and the river.

Hitherto my experiments have been confined to ascertaining the amount of deodorizing power possessed by dry charcoal, and of the same material saturated with Condry's Patent Disinfecting Fluid. That this substance (charcoal), has an extraordinary capability of arresting and absorbing

fœtid gases, has been attested by Dr. Letheby, the City Officer of Health, and my experience fully confirms his observations on this point. But it was to Condyl's fluid to which from some successful experiments in my Laboratory, that I looked for a larger amount of destructive agency. The decomposition of the components of this deodorizer affords such an extraordinary volume of available oxygen that it offers the most ready, cheap, and certain means of burning up impurities. The very facility, however, with which these changes take place, at present offers obstacles to its practical application as proposed, but I have reason to believe that this impediment may yet be overcome; in fact, I am already in possession of a combination of materials by which Mr. Condyl has sought to give a more lasting action to it.

The operation of charcoal, I believe, is principally exerted on the sulphuretted hydrogen and sulphide of ammonium existing in the sewer gases, but the power of nascent oxygen would not rest here. In sewer emanations there exist offensive compounds which, although as yet they have defied the scrutiny of the chemist to define, would not resist the pyrogenic influence of free oxygen. This, therefore, appears to me the element to which we have a right to look for the most complete results. Its most appropriate mode of generation remains for future investigation to determine. I purpose conducting some experiments with pumice stone, which I am inclined to think may prove a more powerful deodorizer even than charcoal.

During the several weeks that I have been engaged at the Broadway and Bridge Road Shafts, I have not been able to detect the slightest smell from either, whilst the charcoal sieves have been in use, neither can I ascertain that any persons accustomed to repass them have experienced annoyance. The delicate test papers used have occasionally shown evidence of the escape of gases, but after exposure to them for several days have not evidenced any intensity of character, whereas, when exposed to the same without the charcoal, they have become rapidly and powerfully affected.

Upon the whole I am convinced that the apparatus suggested by Mr. Bean and myself, offers the best practical mode of dealing with this difficult question. Its easy application, and the facility with which it may be worked, must claim for it a favorable consideration. Mr. Haywood, the Engineer to the City Commission, in his Report upon the Ventilation of Sewers, dated Nov. 22, 1858, remarks also that it "will be the cheapest in adaptation." In the same Report he states it as his opinion, however, that the use of charcoal sieves will offer considerable impediment to the currents which now circulate in the sewers, and that probably three or four ventilators will be required where there is now only one, unless they are relieved more freely by the house drains and untrapped inlets than at present.

Dr. Letheby's opinion and experience are in accordance with my own upon this point, but even should it be found desirable to increase the outlets, I believe the apparatus now before you may be rendered applicable to the roadside gullies, and thus render any increase in the number of shafts unnecessary. The adaptation of a Syphon outlet underneath it, fitted with a flap to act in case of drought, would effect this object.

Under ordinary circumstances I consider the use of dry charcoal will always be sufficient in them to counteract the injurious gases, but during the prevalence of epidemics, or extraordinary hot weather, some additional deodorizer may be advisable. In connection with this subject I beg to bring under your notice an Apparatus, suggested by Mr. Love-

grove, Surveyor to the Hackney District, sections and plans of which I append hereto. Its *modus operandi* will be found described in a report to the Hackney Board of Works, dated Nov. 11th, 1858.

MORTALITY.

The details of mortality and sickness in the Fulham District during the year 1858, compared with other districts, have been of a favorable character. The total number of deaths has been 773, of which 347 occurred in Fulham, and 426 in Hammersmith. The Lunatic Asylums have contributed 11; the Union House, 77; and Nazareth House, the Convent of the Good Shepherd, and the Reformatory, Blythe Lane, 22. The number of Inquests has been 31.

An epidemic named Diphtheria, has cut off large numbers of the people in London and various other parts of the kingdom during the last few months, but it will be satisfactory to you to know that whilst Paddington, Kensington, Belgravia, and other richer parishes have suffered, we have enjoyed comparative immunity from its attacks. Very few cases have been brought under my notice, and only three deaths have actually occurred from this malady within our limits; it has, however, shewn itself among us, and throat affections have been more than usually prevalent.

Diseases of the Zymotic class have furnished 137 to the number of deaths. No fever of a dangerous character has prevailed, except in Palace Place, at Fulham, where during the autumn months several cases of a Typhoid type occurred. The houses for the most part were in good sanitary condition, but the existence and condition of the Bishop's Moat at the rear appeared to have been the exciting cause of the outbreak.

INFANT MORTALITY.

The returns of last year still show the fearful mortality arising in the infant portion of the population, and every source of this devastating influence cannot be too scrupulously analyzed and made known. I have already, in my various reports, forcibly laid before the public many of the causes which are in operation to produce this sad result, but more have yet to be unravelled.

It is true that of the 63,882 deaths which occurred in London during 1858, the causes were specified in 63,027 instances, nearly all of which, according to the Registrar-General's Returns, were certified by the medical attendants, by the medical officers of institutions, or by the coroners; but this does not disprove the fact that there is a large mortality arising from diseases which, although not ranked amongst the preventible, prove fatal from wilful neglect, or maltreatment of premonitory symptoms. In a large number of instances, especially amongst the poor, and particularly as regards chest affections, the prescribing chemist has charge of the cases during their early and more curable stages, and it is only when the little stock of ready money is exhausted, or the unchecked malady has aroused the fears of both the friends and ignorant prescriber, that the properly-educated medical man is sought for, perchance just time enough to close the eyes of the little sufferers, and pronounce, in his certificate, the ostensible cause of death.

Surely with such an amount of gratuitous assistance as the British Isles present, the noble hospitals, the not less useful dispensaries, the parochial system, with the large and well-known philanthropy of the members of the medical profession, there remains no plea for such a state of things. Of the 773 deaths in the two parishes, 265 were of children who had not reached their third year, and 299 had not attained their 5th year of age. Of these 212 belonged to the working classes, and in 54 instances or nearly 6·1 per cent. of the total mortality, the cause of death was assigned to debility from birth, no unimportant illustration of the effects of an enervated physical condition. Fifty children, of which Hammersmith furnished 35, were cut off by Chest affections, and 98 from diseases of the Zymotic class before arriving at their fifth years. Of the total deaths 13 were from measles, 33 from whooping cough, 39 from diarrhœa, 21 from scarlatina, and 14 from typhus. Under the head of diarrhœa, the Registrar General is in the habit of placing a large number of cases, not only where it is connected with mesenteric disease and debility in the young, but also in all those instances where it appears merely as a concomitant of extreme old age. This unduly exaggerates the one and diminishes the legitimate number of the other. It is gratifying to observe that the deaths of no less than 132 persons (or 17 per cent. of total deaths), were registered last year, who had attained to 70 years and upwards. Of these seventy eight died between 70 and 80, forty-eight between 80 and 90, and six at 90 and upwards; the oldest persons were widows of 96, one at Walham Green, the other an inmate of the workhouse, the relict of a garden labourer.

I am happy to say the Fulham District has enjoyed during the last year a happy immunity from small-pox. Only two deaths occurred from this disease in 1856, one in 1857, and none in 1858. During the latter part of last year, two or three cases occurred at Crab Tree, Fulham, and more recently one in Fulham Fields, and another in Britannia Court, Hammersmith, but, owing I believe, to the promptness of Mr. Roy and the Union Authorities in immediately removing these latter cases to the Small Pox Hospital, the progress of the disease has been entirely stayed. In connection with these cases, I am desirous of arousing the attention of the public to the necessity for every care being paid to vaccination. Prejudice with some still lingering in the community, and indifference in others, prove yet sad stumbling-blocks to the development of the blessings of this grand prophylactic.

The provisions of the Compulsory Vaccination Act enact that "The father or mother of every child born in England or Wales after the 1st day of August, in the year of Our Lord, one thousand eight hundred and fifty-three, shall, within three calendar months after the birth of the said child, or in the event of the death, illness, absence, or inability of the father and mother, then the person who shall have the care, nurture, or custody of the said child shall, within four calendar months after the birth of such child, take or cause to be taken the said child to the medical officer or practitioner appointed in the Union or parish in which the said child is resident, according to the provisions of the first-recited Act, for the purpose of being vaccinated, unless he shall have been previously vaccinated by some duly qualified Medical Practitioner, and the vaccination duly certified, and the said medical officer or practitioner so appointed shall, and he is hereby required thereupon, or as soon after as it may conveniently and properly be done, to vaccinate the said child, &c.," and such wise precautions cannot be too rigidly and

energetically enforced. I would also observe with reference to this subject, that by statute it is rendered a penal offence to expose in the public thoroughfare any patient labouring under small pox. I consider that the very absence of this scourge from our district should induce us to use every effort to keep it from our doors, and that the public attention should be occasionally drawn by the authorities to the importance of doing so.

BIRTHS.

The number of births registered in the year was 1126, showing an excess of births over deaths of 353.

I have the greatest pleasure in stating that the Board of Guardians have kindly given me permission to inspect the medical relief books at the workhouse, each Thursday, by which I am enabled to gain early information of prevailing sickness in the district.

METEOROLOGY.

The meteorology of the year has presented one or two striking peculiarities; extreme heat, extreme cold, and remarkably small rain fall, although the number of days on which it fell has been above the average.

The mean temperature of the 13 weeks ending April 3rd, was 37·6, the highest 67·0, the lowest 22·3. During the five consecutive weeks ending March 13th, the weather was exceedingly cold, and the mean of each week considerably below the average; indeed the mean daily temperature was below the average on every day except Feb. 13th, from Feb. 7th to March 12th inclusive. The effect of this severity of weather was sensibly shown in the mortality. The deaths which in January and February were 108, rose in March and April to 152. The temperature of June was remarkably high, the thermometer having risen in the shade on the 16th to 92·0. The lowest point obtained was 46·5, which occurred on the 28th. Only ·9th of an inch of rain fell during the month. Mr. Glaisher states that "the mean temperature of this month has been but once exceeded since the year 1771, a period of 87 years, viz., in the year 1846." The weather in November and December was exceedingly severe and trying. In the former, frost and fog prevailed up to the 25th, the thermometer having descended on the 24th to 18·5. The air was remarkably stagnant throughout, except on the 14th and 15th. The general direction of the wind was from north and east. Rain fell on the 25th, and continued for several days. And here again the mortality was considerably influenced by atmospheric conditions, the number of deaths, which in September and October were 116, rose in November and December to 146, and this excess continued to be evidenced through the succeeding month of January. No ozone was registered on 56 out of the 66 days occurring between October 14th and December 18th, inclusive, and coincident with the absence of this oxydizing agent, much sickness existed. In conjunction with Dr. Tripe of Hackney, I have been for some time engaged in observations on this important element, and we have found that it is completely removed from the air which has passed over the Metropolis. The total rain fall of the year was only 17·465 inches, and the number of days on which it fell, 150.

The records of your committee will shew that a large amount of sanitary work has been carried out during the past year, a detail of which will be given in your customary annual report to the Board. Several important decisions have been obtained, and it is pleasing to observe that success continues to attend your efforts in every case in which you have ordered proceedings to be taken before the magistrate.

CONCLUDING REMARKS.

The general sanitary results of the year cannot be considered otherwise than satisfactory, but there is still every possible reason for continued and energetic exertion.

The great problem still to be solved presses strongly on my mind. Are we prepared to meet the outbreak of any serious epidemic? Is the population of the Fulham District yet in a position to present all attainable opposition to the generation and extension of preventible disease? I feel that we yet fall far short of this much to be desired end.

Some of the miserable hovels which lie scattered through these parishes must be obliterated from their maps, much of the cottage property must be remodelled, damp and unwholesome yards be paved with some impermeable surface, a yet more frequent removal of domestic refuse, a large extension of the water mains, and other available sources of supply, a well developed system of public supervision over the children of the poor, and a more enlarged sympathy with the general physical condition of the working classes are necessary before we can reach this goal. I cannot conclude this Report without thanking you, gentlemen, for a large amount of personal exertion in visiting and investigating with your officers many of the cases of nuisance which have been brought before you, by which they have been most materially (and beneficially to the district) supported in their labours.

If, in the prosecution of my duties I have sought in any way for more to be done than in your discretion you have thought desirable, I trust you will consider I have been prompted only by a desire to place the Fulham district in the best possible sanitary condition, and if in what has been done, my portion of the labour has merited your approval, it will be a lasting gratification to

Gentlemen,

Your Faithful Servant,

FREDERICK J. BURGE,

Medical Officer of Health.

April 21st, 1859.

TO THE SANITARY COMMITTEE.

BOARD OF WORKS, FULHAM DISTRICT.

"GENTLEMEN,—In compliance with your request I have the honour to lay before you the following report upon the most advantageous means of ventilating sewers, and of deodorizing the gases arising from them. The very ingenious apparatus invented and proposed by Mr. Bean, your Surveyor, appears to me admirably adapted to accomplish the mechanical

agency required, but as several disinfectants, I think, might be made available for the destruction either of part or the whole of the injurious gases, some slight modification of the details are rendered desirable according as one or the other may be found most useful and economical. The substitution of a series of "Trays" for holding the disinfectant, instead of the "Cradle" exhibited in the original model, will, I believe, be found to answer this purpose, or the application of a series of metal tubes, placed side by side in a vertical position, with perforated bottoms, through which the air would pass from the sewer, and be sure to come more perfectly in contact with the deodorizing agent.

"The exceedingly elaborate report lately presented by Dr. Letheby to the City Commission, renders it unnecessary that I should enter into many matters of detail, which I had previously prepared to lay before you, but you will remember the experiments which I had the pleasure of shewing in your presence on the 1st of July last, and the remarks I then made on the nature of sewer products, and on the agents most likely to be useful for disinfecting them.

"The principal gases usually existing in sewer emanations, have been found to be sulphuretted hydrogen, sulphide of ammonium, ammonia, carburetted hydrogen, carbonic acid, nitrogen, &c., with some others, the exact composition of which are not yet known. The chemical agents which will destroy or decompose the greater number of these, will, of course, *ceteris paribus*, be the most valuable.

"Mr. Bean having been unable as yet to take the necessary steps for securing the invention, has prevented my conducting any number of experiments on the public sewers, and the difficulty of manipulating with an apparatus constructed of wood, so easily influenced by temperature and moisture, has also tended to limit my practically carrying out the design. I have, however, conducted numerous experiments in my laboratory for the purpose of ascertaining the applicability of the principle, and have every reason to think that, when manufactured with a proper material, the apparatus will prove eminently successful.

"The chemical agents which have principally engaged my attention at present have been—

"1st. Lime mixed with ordinary charcoal, as originally proposed by Mr. Bean, and exposed to the sewer emanations by means of his "Cradle."

"The whole of the sulphuretted hydrogen may thus be decomposed, and, I believe, some of the other gases decomposed or absorbed.

"2ndly. The oxides of iron, mixed with sawdust.

"These agents have been most successfully used in the purification of coal-gas by the Imperial and other Gas Companies, which suggested to me the idea that, by the adaptation of a series of trays to the apparatus, so arranged as to ensure the perfect transmission of the entire sewer air through them, this mixture would form an admirable material for securing the object.

"3rd. The Oxides of iron, mixed with coarsely-powdered charcoal.

"The operation of these would be somewhat similar to the preceding. There is, however, this drawback to the foregoing substances, that although the sulphuretted hydrogen and sulphide of ammonium would be totally annihilated, there are other gases arising from the decomposition of organic matter, which might possibly remain unaffected by them. The same may be said of chlorine and some others.

"The agents which in the present stage of my inquiries seem to promise most hope of securing all possible advantages are—

"4th. The manganate and permanganate of potass.

"These constitute the active principles in Condry's disinfecting fluid, and form an admirable means for destroying impure gases. They, however, with others, have hitherto ranked only amongst the strictly *local* disinfectants, and from their non-diffusible nature could not be satisfactorily applied to the gases pervading the atmosphere of large sewers.

"The permanganate of potass is a substance having the peculiar property of freely and easily parting with a portion of its combined *oxygen* to any oxydizable organic substance. The potassium, like other metallic bases, decomposes the sulphuretted hydrogen and sulphide of ammonium, whilst the oxygen set free, unites with or burns as it were the remaining noxious gases arising from putrescent organic matter.

"The mode by which I think they can be made available is by saturating very coarsely-powdered charcoal with a rather strong solution, and securing the passage of the sewer air through the material by means of the series of trays or metal tubes before alluded to.

"The above chemical agents are none of them new, but are all well tried servants in sanitary science; nevertheless, though they have been used as disinfectants in the ordinary manner, none have as yet been applied to the decomposition of sewer gases in an apparatus so fraught with advantages as that suggested by Mr. Bean and myself. The manner in which they have been generally used has been by merely suspending flannels, &c., saturated with the various solutions, either in the sewers or ventilating shafts, necessarily allowing a very large proportion of the gases to escape, without contact with the disinfectant, a circumstance which it is believed will be avoided by the use of the proposed apparatus.

"A very important advantage in it is, that the action will be entirely on the gaseous matters. No extraneous substance will be added to the contents of the sewers; at any rate there would be nothing to interfere with the utilization of the sewage, should such be found practicable and desirable.

"The large experience and many favourable opportunities for investigation enjoyed by Dr. Letheby, have enabled him to give to the world a valuable store of practical deductions, and it would be presumptuous in me now to go further into details on this subject. If the apparatus now under your notice fails to accomplish all that can be desired, I am quite certain that it will be instrumental in diminishing to a most sensible extent the offensiveness of the ventilating shafts; that its cost will not be excessive, and that the expense of maintaining it in action will be trifling compared with the advantages obtained. The charcoal may be washed and used almost *ad infinitum*. The oxide of iron may be revived by exposure to the air, and used for a very lengthened period, and even if Condry's patent solution were used, it may be purchased according to Dr. Letheby at a cost of about 1s. per gallon. The apparatus should be under the supervision of the Officer of Health or Surveyor, but the replenishing and removal of the material, when ordered, might be accomplished by any shrewd workman belonging to your ordinary staff.

"I do not apprehend there will be any necessity for a very frequent change of the disinfectant, except during the existence of an epidemic, or in very hot weather; and I think a series of chemical test-papers can be so arranged and applied, as to indicate when such change is necessary, without trusting to the sense of smell.

"In conclusion, Gentlemen, allow me to repeat my belief that whether the means thus so very imperfectly presented to your notice, sufficiently

realize all that is expected of them, so as to be deemed worthy of general application, there is great probability of such an amount of benefit being derived as to warrant a trial in your district. I am sorry to place before you so crude a report on the Chemistry of this subject; but matters of this kind require far greater opportunities and much more time than I have at my command.

"I remain, Gentlemen,

"Your faithful and obedient Servant,

Hammersmith,
Sept. 23, 1858.

"FREDERICK J. BURGE,
Medical Officer of Health."

SUPPLEMENTARY REPORT.

TO THE BOARD OF WORKS OF THE FULHAM DISTRICT.

GENTLEMEN,—Since the presentation of the foregoing Reports to the Sanitary Committee, I have been constantly engaged in a series of experiments on the Broadway and Bridge Road Ventilators. The materials used for the deodorization of the gases have been simple charcoal, the oxide of iron mixed with coarse sawdust, and charcoal saturated with Condry's fluid. The first and last have been placed in the cellular arrangement already described, and the oxide in the series of trays also alluded to. From the partial manner in which the apparatus has been applied, it is impossible to arrive at a positive conclusion as to the exact amount of resistance to the passage of the gases offered by the deodorizer, but as far as my experience has taught, I feel certain that no *injurious* influence is exercised thereby upon the ventilation of the sewer.

Coincident with my experiments, Mr. Bean has caused an investigation to be made periodically by the person in charge of the Bridge Road Sewer, with reference to its condition as indicated by the sense of smell, and for the purpose of ascertaining whether any change for the worse had occurred in consequence of the use of the apparatus. These examinations testify that the air of the sewers will not be in any way injuriously affected, and that whilst almost, if not quite the whole of the nuisance arising from the old mode of ventilating them will by this means be annihilated, no impediment of consequence will be offered to the passage of the gases, neither can any ill consequence be expected to affect the workmen employed in cleansing or repairing them. An inquiry in the neighbourhood of the Broadway Ventilator satisfies me also that no injurious influence has been exerted on the house drains in consequence of my experiments.

I have endeavoured to search truthfully into the effect of the apparatus, and have therefore no hesitation in recommending your Board to adopt a more enlarged application of it, selecting for further trial such a portion of the district as will, in the opinion of Mr. Bean and myself, put it to the severest possible test.

I hope, by the Diagrams now before you, to give you ocular evidence of the result of some of my experiments. The test papers attached thereto point out the intensity of the gases in the sewer and shaft, and their modification after passing through the deodorizing process.

I remain, Gentlemen,

Your faithful and obedient Servant,

July 6th, 1859.

FREDERICK J. BURGE,
Medical Officer of Health.

BOARD OF WORKS FOR THE FULHAM DISTRICT.

ABSTRACT OF ACCOUNTS FOR THE YEAR ENDING 25th MARCH 1899.

Abstract of General Cash Account.					Contra.				
Dr.									Cr.
To Balance	£	s.	d.		By Balance	£	s.	d.	
To Fulham General Rate	1547	12	11		By District Charges	300	4	10	
" Rent of Garden proportion	4	0	0		" Repayment to Loan Commissioners	349	0	0	
" Loan Commissioners	2000	0	0		" Interest	67	5	2	
" Metropolitan Sewer Rate	1015	15	11		" Lighting Rate	3132	12	6	
" Lighting Rate	4	10	2		" Sewers' Rates—Metropolitan Board	224	0	0	
" Sewers' Contributions	302	0	0		" Local Sewers	40	8	11	
" Total	302	0	0		" Total	399	0	2	
To Hammer-smith General Rate	2190	0	0		By Hammer-smith on General Rate	2011	0	0	
" Contributions	21	1	0		" District Charges	420	0	0	
" Rent of Garden proportion	0	0	0		" Repayment to Loan Commissioners	349	0	0	
" Loan Commissioners	2000	0	0		" Interest	116	10	2	
" Deposit Account	2000	0	0		" Lighting Rate	3735	1	0	
" Lighting	96	15	11		" Local Sewers	304	11	5	
" Sewers' Contributions	1023	1	0		" Sewers' Rates—Metropolitan Board	202	1	10	
" Metropolitan Sewer Rate	1349	17	0		" Total	5137	12	1	
" Total	1349	17	0		" Balance	15,000	0	0	
Grand Total	£15,000	12	11		Grand Total	£15,000	12	11	

Abstract of District Charges Account.									
Dr.									Cr.
To General Purposes, Fulham, being two-fifths of £715 to 7d., and paid.	£385	1	10		By Medical Officer of Health	£	s.	d.	
To General Purposes, Hammer-smith, being three-fifths of £715 to 7d., and paid out of General Rate.	£329	2	5		" Surveys	100	0	0	
					" Clerk	200	0	0	
					" Messenger	14	15	0	
					" Miscellaneous	2	12	0	
					" Rates, Rates, and Taxes	69	10	2	
					" Repairs	9	3	5	
					" Printing and Stationery	20	0	11	
					" Books	33	10	9	
					" Total	310	4	7	
					" Balance	715	4	2	

Abstract of Fulham General Rate Account.									
Dr.									Cr.
To Balance	£	s.	d.		By New Tools and Repairing Old Tools	£	s.	d.	
To Overruns on General Rate	1547	12	11		" Carriage	37	10	10	
" Rent of Garden	4	0	0		" District	262	9	9	
" Loan Commissioners	2000	0	0		" Wages—Roadmen	28	0	0	
" Total	3051	12	11		" Inspector	401	0	0	
					" Materials	323	9	3	
					" Coal and Gravel	82	1	0	
					" Rent of Shed	200	3	5	
					" Miscellaneous	4	3	0	
					" Streets of part main—unpaved, Main Street	5	11	0	
					" Permanent Works	707	11	3	
					" District Account	3000	0	0	
					" Loan Commissioners' Repayment of £200 Portion of Loan	200	0	0	
					" Loan Commissioners' Interest	82	2	0	
					" Balance	215	0	0	
					" Total	£3407	12	10	

Abstract of Hammer-smith General Rate Account.									
Dr.									Cr.
To Balance	£	s.	d.		By New Tools and Repairing Old Tools	£	s.	d.	
To Overruns on General Rate	2190	0	0		" Carriage	37	10	10	
" Contributions	21	1	0		" District	262	9	9	
" Loan Commissioners	2000	0	0		" Wages—Roadmen	412	10	4	
" Deposit Account	1000	0	0		" Inspector	75	0	0	
" Total	7230	1	10		" Materials	343	0	7	
					" Coal and Gravel	31	10	0	
					" Rent of Shed	178	10	7	
					" Miscellaneous	19	0	0	
					" Permanent Works	707	11	3	
					" District Account	3000	0	0	
					" Loan Commissioners' Repayment of 20th portion of Loan	429	2	0	
					" Loan Commissioners' Interest	200	0	0	
					" Balance	215	0	0	
					" Total	£7,000	1	10	

Abstract of Fulham Lighting Rate Account.									
Dr.									Cr.
To Overruns on Lighting Rate	£	s.	d.		By Balance	£	s.	d.	
" Balance	300	10	1		" Balance	300	10	1	
" Imperial Gas Company	220	10	0		" Brompton Gas Company	1007	2	0	
" Brompton Gas Company	300	10	0		" Wastons	200	0	0	
" London Gas Company	300	10	0		" Total	1507	2	0	
" Total	1200	0	0		" Balance	300	10	1	

Abstract of Hammer-smith Lighting Rate Account.									
Dr.									Cr.
To Overruns on Lighting Rate	£	s.	d.		By Balance	£	s.	d.	
" Balance	300	10	1		" Balance	300	10	1	
" Imperial Gas Company	220	10	0		" Brompton Gas Company	1007	2	0	
" Brompton Gas Company	300	10	0		" Wastons	200	0	0	
" London Gas Company	300	10	0		" Total	1507	2	0	
" Total	1200	0	0		" Balance	300	10	1	

Assets and Liabilities.									
FULHAM GENERAL PURPOSES ACCOUNT.					HAMMER-SMITH GENERAL PURPOSES ACCOUNT.				
Dr.				Cr.	Dr.				Cr.
To Cash Balance	£	s.	d.		To Cash Balance	£	s.	d.	
Due from Overruns on prompt, dated	274	2	10		" Balance	342	4	11	
" May 25, 1900	250	0	0		" Permanent Works	5	0	0	
" Permanent Works	15	0	0		" Road	11	10	0	
" Gravel	30	0	0		" Shipping	10	0	0	
" Carriage	17	10	0		" Fuel	21	4	0	
" Scraping	14	0	0		" Carriage	31	0	0	
" Coal	25	0	0		" Tools	20	10	0	
" Flint	25	0	0		" (Hammer 7 12 6)				
" Lifting Works	2	11	0		" (Wastons 2 3 0)				
" Trade	0	3	11		" Coal	31	10	0	
" Gravel	24	3	0		" Permanent Works	5	0	0	
" Dockmen	145	1	3		" Gravel	13	2	0	
" Balance	145	1	3		" To give	4	0	0	
					" To give	2	0	0	
					" Gravel	85	3	3	
					" Small Accounts	5	12	0	
					" Total	1007	2	0	

Assets and Liabilities.									
FULHAM.					HAMMER-SMITH.				
Dr.				Cr.	Dr.				Cr.
Due from Overruns on prompt, dated	£	s.	d.		Due from Overruns on prompt, dated	£	s.	d.	
" Nov. 1901	0	0	11		" Nov. 1901	3000	0	0	
Due from Overruns on prompt, dated	800	0	0		" Balance	0	0	11	
" Nov. 14, 1900	0	0	11		" Sewers' Account	34	12	0	
" Balance	0	0	11		" Balance	12	0	7	
" Sewers' Account	912	0	0		" Mr. Webb	2	1	0	
" Works	10	0	7		" Water Mainline Water Works	44	10	0	
" Balance	100	12	0		" Mr. Willwood	2	0	11	
					" Mr. Rotherham	2	10	0	
					" Grand Junction Water Works	1	4	0	
					" Mr. Willwood	15	0	2	
					" Total	207	0	7	
					" Mr. Churchman	4	0	0	
					" Coal	10	17	0	
					" Thompson	2	13	0	
					" Baby	5	0	0	
					" Page	6	10	0	
					" Water Rate	5	5	0	
					" Total	1	0	0	
					" Balance	0	0	0	

BOARD ROOM, BRIDGWAY HOUSE.

Hammersmith, May 21, 1900.

I hereby certify that I have carefully investigated the several existing accounts of the Board, have compared them with the Books and Vouchers, and find them correct. I cannot, however, agree with my Co-Auditor in either the suggestion or conclusion that there were errors in the way in which I signed in the year in which it was first signed by them. In the year that signed by them and balanced by my signature, was a paragraph appearing of the account in which the errors were kept—other I referred to, as in my judgment a system does not call for approval, which does not contain accounts which would show at one view what the state of the accounts of each party in the year was, and so each account in its full length. These figures are stated from my much against my will, but I feel bound to make them.

John B. 1900.

JOHN BLANCHFORD, AUDITOR.

BOARD ROOM, BRIDGWAY HOUSE.

Hammersmith, May 21, 1900.

We hereby certify that we have carefully investigated the several accounts of the Board, have compared them with the Books and Vouchers, and find them correct. We, however, find that balance and due upon the several existing accounts of the Fulham General Purposes, dated May 25, 1900, of £200, of Fulham Lighting Rate, dated Nov. 24, 1900, of £400, and the Hammer-smith Lighting Rate, dated Nov. 24, 1900, of £300, being a total of £900, and suggest that the balance of the account of the year which ought not to be kept in credit, but as a balance against the property company, and to be paid to the property of the Board.

J. WILLIAMS, Auditor.

ВОПРОСЫ К РАБОТЕ

Вопросы к работе по предмету: Экономика

Вопросы к работе по предмету: Экономика

Вопрос	Ответ
1. Что такое экономика?	Экономика - это наука о том, как рационально использовать ограниченные ресурсы для производства благ и услуг.
2. Какие функции выполняет экономика?	Экономика выполняет следующие функции: распределение ресурсов, производство, обмен, потребление.
3. Что такое рынок?	Рынок - это механизм, с помощью которого осуществляется взаимодействие производителей и потребителей.
4. Какие виды рынков существуют?	Существуют различные виды рынков: товарный, финансовый, валютный, рынок недвижимости и др.
5. Что такое конкуренция?	Конкуренция - это борьба между производителями за получение максимальной прибыли.
6. Какие виды конкуренции существуют?	Существуют различные виды конкуренции: монополистическая, олигополистическая, совершенная конкуренция.
7. Что такое спрос?	Спрос - это количество товара, которое покупатели готовы приобрести по определенной цене.
8. Что такое предложение?	Предложение - это количество товара, которое производители готовы продать по определенной цене.
9. Что такое равновесие?	Равновесие - это состояние рынка, при котором спрос равен предложению.
10. Что такое инфляция?	Инфляция - это устойчивое повышение общего уровня цен.
11. Какие причины инфляции?	Причины инфляции: избыток денег в обращении, рост издержек, рост спроса.
12. Что такое безработица?	Безработица - это состояние, при котором часть населения не имеет работы.
13. Какие виды безработицы существуют?	Существуют различные виды безработицы: трения, структурная, циклическая.
14. Что такое бюджет?	Бюджет - это план доходов и расходов государства или организации.
15. Какие виды бюджетов существуют?	Существуют различные виды бюджетов: государственный, региональный, местный.