

AN INCREDIBLE STORY,

ORIGINALLY TOLD IN A

LETTER

TO

The Right Hon. the Earl of Beaconsfield, K. G.,

THEN PRIME MINISTER OF ENGLAND.

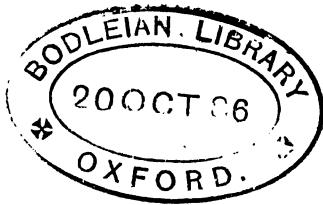
RE-WRITTEN AND FURTHER CONTINUED.

"Tis strange but true, for truth is always strange—
Stranger than fiction."

Don Juan, canto xiv. stan. 101.

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AN INCREDIBLE STORY.

OUR huge Metropolis, when it was still a small city, was supplied with water from natural springs rising in the hills on its northern side and carefully conveyed to fountains, or conduits, whence the inhabitants fetched it for use in their houses, after the primitive fashion prevailing in many continental towns to this day, and of which at least one example remains in England, the Cathedral City of Wells. King Henry VI., among his other good deeds, enlarged this supply by granting to the City, on the occasion of his marriage, the Conduit Mead, where the pure water welled up in abundance, the locality of which is still marked by the name of Conduit Street.

London grew in size and population, and the conduits in the beginning of the 17th century ceasing to be sufficient for the wants of the population, the public enterprise of Sir Hugh Middleton and other citizens, with the assistance of James I., conducted the springs at Anwell through the aqueduct of the New River, some forty miles in length, to supplement the supply. London, however, still continued to grow; but a subsequent generation, less nice than their ancestors, was content to have its water taken from the Thames at London Bridge, and afterwards from Battersea.

We had, meanwhile, been changing some of the habits of our forefathers, and amongst these changes was the introduction into our houses of the water-closet, a change made possible only by the increased quantity of water obtained by using the River Thames as a source of supply, but which

became its own Nemesis, for it fouled that river to such an extent that an irresistible cry for a remedy made itself heard.

In these circumstances a Royal Commission was issued to inquire into and report upon the Water Supply of the Metropolis, which was presided over by His Grace the Duke of Richmond. That Commission came to the conclusion that the Thames water was a suitable and good water for the use of the four million inhabitants of London, provided the contamination of the water by the passage of sewage into the river was stopped. It would be foreign to the purpose of this story to inquire whether this was a sound conclusion (about which much may be said, as the Thames is, and will always remain, a navigable river), it is sufficient to say that the report was made and acted upon.

Before this report, however, the sewage of the Metropolis itself, flowing and reflowing as it did through London with the ebb and flow of the tide, had become so much a nuisance to the Metropolis, that its outfall into the river had been removed from London by the Metropolitan Board of Works, specially called into existence for the purpose, to a point some few miles lower down the river. This happened none too soon; for one of the London water companies had long pumped this highly flavoured mixture from their works at Battersea for the use of such of the inhabitants of London as had the privilege of being within the area of their supply.

There remained to be dealt with the sewage of the places on the Thames above the Metropolis, from Lechlade to Putney, a distance of 140 miles, and as to these the Metropolis acted with great injustice, not to use any harsher words. Most of these places had been compelled, by the sanitary legislation then existing, to spend large sums of money in laying down a system of sewers, and carrying the outfall into the Thames.

No sooner, however, had the Duke of Richmond's Com-

mission reported in favour of the Thames supply than an Act of Parliament was passed, at the instigation of the Government, to compel these places, under heavy penalties, to discontinue the flow of sewage into the Thames; that is to say, they were to undo by law what the law had made them do. It was a very arbitrary step, and the more arbitrary as they were not told how otherwise the sewage was to be disposed of; but they were helpless. London insisted upon having the Thames as a source of supply for its water, the Thames Conservancy sold the right to take this water to the London water companies for some £6,000 a year (subsequently increased to £10,000), and thus London and the Thames Conservators treated the Thames above London as their property, irrespective of any injustice they dealt out to the towns above London, or the endless trouble they imposed upon the local authorities or the heavy burdens they put upon the ratepayers of those towns. The value of the water when pure might at least have gone in relief of that taxation which was to be spent in making it pure instead of being paid to the Conservators.

It seems almost incredible that this legislation should have passed without sufficient powers being conferred upon these unfortunate places to dispose otherwise of their sewage when it was taken out of the Thames; but they were weak and scattered; the water companies, the Metropolis, and the Thames Conservancy were wealthy, strong, and united, and the weak, as usual, went to the wall. It is true that the Select Committee of the House of Commons, to which the Bill was sent were so struck with the difficulties these places would be placed in, that they made a special report on the subject so far as some of them near London were concerned, but it fell unheeded by any one who could give effect to it. If a Chinaman wandering to the Fiji Islands had had his tail cut off through some humble official of the Government

mistaking his instructions or duties, he would no doubt have found an advocate in Parliament; but the grievous wrongs of the subjects of Her Majesty in England itself are much more difficult of redress, as this story will show.

However, so it was, and in 1867 all passage of sewage into the river, except that of London itself, was forbidden, at the instance of London, under a penalty of £100 a day on the offender.

No time was lost by those affected in rendering obedience. Kingston led off. Before the Act had passed even, that town had been attacked in Chancery by the Conservators; and expecting little mercy at their hands, the authorities looked about them and found a spot admirably adapted, as they believed, to deal with their sewage and that of their immediate neighbours, by passing it over and through a porous soil at Ham, within their own parish.

Application was made to the Government to sanction this, and the official inquiry was duly held in March, 1869. Kingston, however, had not before tasted of the pleasures of sewage questions: a host of objectors, neighbouring residents, appeared, and after spending nearly £900 in the cost of the inquiry, the Government refused to allow the scheme to be proceeded with. Many influential persons resided in the neighbourhood, and it has always been said that back-stairs influence prevailed against the sanitary claims of Kingston. All the good Kingston took from their attempt to comply with the law was, that a special rate had to be made on the inhabitants to pay the £900 thus absolutely thrown away.

Next Richmond appeared upon the scene. Richmond before it took its sewage into the Thames, in obedience to the law, had desired to utilise it on some land belonging to the Crown called the Old Deer Park, but had been refused permission; it had now to take it out of the Thames after spending £20,000 to put it in! For this purpose it turned its attention to some

land between Wimbledon and Malden; an official inquiry was held in January, 1871, again a host of objectors appeared, and the Government refused permission. Thus all the advance that Richmond had made was to incur a perfectly useless expenditure of £200 in the cost of the inquiry, which had, as usual, to be borne by the unfortunate ratepayers.

Kingston then made another attempt. Determined this time not to be defeated by landowners' opposition, it purchased a hundred acres of land between Walton and Moulsey, and arranged for the neighbouring local authorities at Surbiton and Hampton Wick to join with it in taking their sewage there. This time it had only to obtain the permission of the Local Government Board to borrow the necessary money to construct the sewers.

Again the official inquiry was held in May, 1872, again objectors appeared, again the Government refused the application, again the unfortunate ratepayers had to pay the costs of the inquiry, but this time with an additional burden, for they had to pay for the land where the sewage was to be purified, and which remains on their hands to this day!

Next Richmond was summoned by the Conservators of the Thames for the penalties they had incurred in breaking the law by allowing their sewage still to flow into the river. It was to no purpose they pleaded that the sewage from some thousands of inhabitants would not stop flowing day by day into the river, that they had tried in vain to get land upon which to divert it, and that it would not evaporate into the air; the magistrates fined them, of course according to law, and the Court of Queen's Bench upheld the conviction, of course according to law. The unfortunate ratepayers had to pay the penalty and costs, but the Richmond sewage flows into the Thames to this day, for there are some things which even an Act of Parliament cannot do.

Richmond next applied to Mr. Gore, the official in charge

of the Crown Lands, and said to him, We are surrounded on all sides by Her Majesty's property; the Government will not let us have land away from our town on which to put our sewage, let us have a part of the Old Deer Park on which to purify it; but Mr. Gore turned a deaf ear to the appeal. Richmond then applied for and obtained—of course after an expensive fight and at the expense of the ratepayers—a special Act of Parliament relieving them for a given time from further penalties, and by way of diversity, they had an expensive arbitration with the Thames Conservancy for further time, which the Board of Trade gave them; but at the expiration of the time the sewage still flowed into the Thames.

Nor were Kingston and Richmond the only bodies desirous of complying with the law. Barnes, Mortlake, and Kew made an application to take land dealing with their sewage at a spot within their own limits. The inquiry was held in July, 1874, and the application as usual was refused with a charge exceeding £500 for the ratepayers to pay.

Hampton Wick also applied to be allowed to join the scheme of the Office of Works providing in their parish for the sewage of Hampton Court Palace, but in vain.

Kew in January, 1877, enjoyed the luxury of a separate application of its own for another spot of land which was refused, and the useless cost of £110 paid by the ratepayers.

In 1877 Barnes and Mortlake tried again for some land by the Soap Works at Barnes, this time without Kew; the application was refused, and the cost, £600, again paid by the helpless inhabitants.

In the same year Esher made an application, also refused, leaving as its only result £665 to be paid by the ratepayers.

In that same year also the large Local Government district of Heston and Isleworth, which embraces Hounslow and includes 6,000 acres, made application for a system of their own, and met with the universal fate—refusal, at a cost to the

ratepayers of £268. These facts will all be found in a return printed by order of the House of Commons (1881, No. 112).

It is thus seen that most of the places near the Metropolis honestly endeavoured to obey the law, and their endeavours met with the invariable result, failure to obtain from the Government the power to carry out what the local authorities had proposed, and without which powers the sewers could not be diverted from the Thames, whilst a heavy and wholly wasted expenditure was imposed upon the unfortunate ratepayers.

One place, and one place alone, made an application which was granted, but never carried out. Richmond obtained in May, 1873, an order of the Local Government Board to deal with their sewage by precipitation. They preferred, however, on further consideration, to throw away the £442 which this cost the ratepayers to carrying out the scheme, for at that time no place had successfully dealt with the difficulty of getting rid of the deposit technically called "sludge."

The large and rising village of Wimbledon was in equal difficulties with other places. It is true their sewage did not go into the Thames, but they wanted an outlet for their sewage; and failing to get one nearer at hand, an eminent engineer resident there, Sir Joseph Bazalgette, came to their help, and proposed a scheme by which all the places in the Thames Valley were to be joined in union to take their sewage to Bagshot Heath. Sir Henry Peek, then as now Member for Mid-Surrey, took the Chair at a public meeting at Kingston to hear this scheme explained, and he probably remembers to this day the noisy opposition that was made to it by some gentlemen who thought themselves injuriously affected by it. It fell of course to the ground, as all proposals have done.

At last, after ten years of these fruitless inquiries and wasted expenditure, and when the matter was becoming not only a scandal but a serious sanitary grievance, for no new houses could be connected with the sewers and no sewers

could be made in places that had them not, the population all the while increasing at a rapid rate in the valley of the Thames—the Surbiton Improvement Commissioners plucked up courage to apply to the Local Government Board for a comprehensive scheme. They asked that all the places in the Thames Valley, between Windsor and London, should be formed into a Joint Sewage Board, that their sewage might be taken out of the Thames above London and taken to an outfall near to the sea suggested by Sir Joseph Bazalgette. The Local Government Board duly held the inquiry through Colonel Ponsonby Cox, R.E., one of their Inspectors. All these places were represented at the inquiry. The evidence given before him of the insanitary state of the district was overwhelming and unchallenged, as also of the utter and hopeless failure of every local authority to obtain power to obey the law by making other provision for its sewage than allowing it to go into the Thames. Colonel Cox sat many days, examined many witnesses, heard many learned counsel, and reported to the Government that the remedy proposed was too heroic, but that a combination of less magnitude should be made, viz., of the places between Hampton and London. This report created great public interest. It was laid before Parliament, but the Local Government Board determined not to create the Joint Sewage Board; and so the Surbiton Improvement Commissioners retired from the field with the usual but only certain result of every attempt to provide for sewage—a call upon their unfortunate ratepayers for the costs, and to find themselves in the old situation, “as you were.”

The Thames Conservators now appeared upon the scene again, with a determined front. They had held their hands during the time the Surbiton application was pending, but no sooner was the result made known than they took proceedings to recover the penalties against the various places. Their

hand first fell upon the smallest and most helpless of them all, Hampton Wick. It was not a very valorous proceeding, for of the 1,350 acres comprising Hampton Wick, 1,200 belong to the Crown, and the representatives of the Crown—the dominant landowner—had, as in the case of Richmond, refused to give any facility to the Local Board to divert its sewage from the river. Hampton Wick was summoned for penalties amounting to £98,000!!! The whole rateable value of Hampton Wick is about £11,000 a year, and as it principally consists of small property, the penalties were not far off the fee simple value of the entire parish. In these circumstances the Local Board took a desperate step. If their parish was to be depopulated and the place turned into a desert by its seizure and sale for these penalties, at least they would venture the gambler's chance. Hampton Wick applied to the Local Government Board to form a Joint Board on the basis recommended by Colonel Cox. They knew the penalty of failure—a few more hundreds added to the £98,000 if they lost. The battle began. The day was fixed for the inquiry at the Town Hall, Kingston. Some ten learned counsel appeared as usual to oppose the order being made, but for the first time in this long history a local authority scored. The temerity of Hampton Wick was rewarded, and the order was actually made; it had yet to undergo the ordeal of Parliament, and there the battle was renewed; but it ultimately became law that there should be a Joint Board, comprising all the places between Hampton and London, except Brentford and Twickenham. Brentford was omitted by the Local Government Board, and Twickenham was left out by the House of Lords. But a sufficiently comprehensive and important Board was formed to deal with this thorny subject, for it comprised some forty-five square miles of country, twelve miles long by eight in width. All the Local Boards were relieved of their penalties and their duties about sewage;

three years from Michaelmas, 1877, was given to the Joint Board to accomplish its work, and the penalties for going into the Thames were suspended during that time, and not to be enforced if the work was done.

At last all who had laboured so long on this subject and the worried inhabitants thought they saw daylight after many weary years of struggling. The constituent authorities proceeded to elect their representatives at the Joint Board, and men of influence and position in the district willingly undertook the labour of solving the difficult problem, in fact, a stronger Board probably never sat down to make their lives wretched about sewage problems. The presence there of Mr. Leicester Penrhyn, the Chairman of Quarter Sessions for the County of Surrey; of Mr. Shrubsole, the Mayor of Kingston; of Sir Francis Burdett, the Chairman of the Richmond Vestry; of Mr. Dickens, the Chairman of the Surbiton Improvement Commissioners; of Sir Thomas Nelson, the City Solicitor; of Mr. Meason, the Chairman of the Local Board of Heston and Isleworth; of General Sir Orfeur Cavenagh, a distinguished officer of Engineers; in short, of the heads of every local authority save one, of some ten or twelve magistrates, and of the vicars of two of the parishes, was a sufficient proof that the spirit of patriotism was not extinct in the Lower Thames Valley. They met first in December, 1877, too late to be ready for the next session of Parliament, as the time for giving the necessary notices was already passed, but they lost no time in setting about their task. As soon as they had appointed a clerk they ascertained the wants for which they had to provide, and reducing these into a business shape, they sent them to every engineer of eminence, and invited them to suggest the best thing to be done with the sewage of the district. Some eighteen responded to this call, amongst them Sir Joseph Bazalgette, the Engineer to the Metropolitan Board of Works; Colonel

Haywood, the Engineer to the City of London; Mr. Baily Denton, Mr. Mansergh, Mr. Shields, and other well-known names. As some sent in alternative plans, the Board had no less than twenty-three to consider. They took a very practical step when they obtained them. They asked a civil engineer unconnected with any of the competitors to analyse all the schemes, and taking one common standard of value to ascertain the cost of each, but upon the merits of the schemes he was to give no opinion. Having obtained this report, it was, with the schemes, printed, and copies furnished to every member of the Board.

The Board, aided by this report, met to consider these schemes in October, 1878. Beyond the time each member had given to their consideration in private, a whole day was devoted to their public discussion, and ultimately four were selected for further and detailed examination; all four schemes were for disposing of the sewage by irrigation or filtration through land, and they all involved the acquisition of land for that purpose and for the pumping stations. A Special Committee, chosen by ballot, was appointed for this examination. They presented a unanimous report to the Board, after visiting the sites, recommending one of those four to be carried out, that proposed by Colonel Haywood, the Engineer to the City of London, and with which report the Board unanimously agreed, and resolved to carry out his scheme. Now this Board was not an ordinary assembly, membership added nothing to social position, no combination of letters could be added to names, it was neither a municipal corporation nor a Local Board, its Chairman was not dignified by being called a mayor, or its members aldermen or councillors; they were associated together to perform a task which for more than a decade had baffled all the local authorities in their district—the relief of the Thames from the sewage of so much of a population of 120,000 persons as used it, and providing means of sewage

for the rest who had no sewers, and if they succeeded their only reward would be the approval of their own consciences. They travelled to and fro over considerable distances at their own expense, and if their duties detained them so as to make refreshment necessary, they provided it out of their own pockets. What their duties were there could be no manner of doubt about. The Provisional Order of the 5th of June, 1877, made by the Local Government Board under the powers of the Public Health Act, 1875, and afterwards confirmed by the Statute 40 and 41 Vic., c. 229, by which they were constituted as "The Lower Thames Valley Main Sewerage Board," expressly declared the purposes in Article X. as follows:—

- (a) "For making and maintaining a main sewer or sewers for the use of and for the reception of the sewage from the sewers of the several Urban Sanitary Districts and contributory places mentioned in the schedules hereto.
- (b) "For erecting, making, maintaining, and working such machinery and plant as may be required for the above purpose, or for conveying the sewage of the United District to a convenient place or places where it may be purified, if necessary, by application to land or otherwise in such manner that it may be discharged into any stream, river, or water-course without breach of the Rivers Pollution Prevention Act, 1876, or of the Thames Conservancy Acts, or of any other provisions of the law; and it shall be the duty of the Joint Board to carry out and perform the purposes for which the United District is formed within a period of three years from the commencement of this order, and in default of their so doing they shall be deemed to be a local authority which has made default in providing their district with sufficient sewers within the meaning of Section 299 of the Public Health Act, 1875."

In fact the Board was formed for the one sole purpose of providing for the sewage of the various Urban and Rural Sanitary Authorities comprised in their district, so as to comply with the provisions of the law against the Pollution of the River Thames, an object which, as has been shown, had long baffled the separate local authorities.

When the Board, having chosen their plan, proceeded to consider what powers they required to carry it out, they were of opinion that as the plan proposed to deal with the sewage upon land in the parishes of East and West Moulsey, Walton-upon-Thames, and Thames Ditton, and as a great part of that land was intersected by two rivers, the Mole and the Ember, upon which there were dams, mills, and weirs, and as these rivers were, in consequence of these obstructions, liable to overflow their banks, and thus flood part of the land upon which the sewage was to be placed, it was imperatively necessary to acquire those mills, part of the bed and soil of the Rivers Ember and Mole, and the rights in the water of the River Mole which certain persons claimed to possess as far as Gobham Bridge, a distance of about five miles above the boundary of the land proposed to be taken. The possession of these mills and water rights would have served three purposes : first, it would have prevented litigation otherwise certain to have occurred between the mill-owners and the Board, as the one would want to keep the water up and the other to discharge it ; secondly, the water power of the Mole might have been economically utilised as auxiliary to steam power for pumping the sewage on to the land ; and thirdly, it was absolutely necessary to straighten and deepen part of the River Ember to carry off the flood waters and also the effluent water from the land to be acquired by the Board. Now, the Public Health Act had given power to the Local Government Board by Provisional Order to authorise the compulsory purchase of land, but it had already been decided

by the House of Lords that this power did not extend to authorise the acquisition of water rights.

This happened in the case of a Provisional Order made on the 5th June, 1877, by the Local Government Board upon the application of the West Houghton Local Board, being the sanitary authority for the Urban Sanitary District of West Houghton, in the County of Lancaster, authorising that Board to put in force the powers of the Lands Clauses Consolidation Act with respect to the purchase and taking of lands otherwise than by agreement, and also certain water and water rights, and a Bill was introduced into the House of Lords in the Session of 1877 by the Earl of Jersey, representing the Local Government Board, to confirm that and other Provisional Orders.

Amongst the owners of property affected by that order were Charles Joseph Stonor, Esquire, James Fleming, Esquire, one of Her Majesty's Counsel, and Sir Charles Frederick Smythe, Baronet, who being advised by eminent counsel that such Provisional Order was *ultra vires* on the ground that it included water rights, presented a Petition to the House of Lords against its confirmation.

In consequence of the presentation of that Petition, the Bill was referred, as required by the Public Health Act, 1875, to a Select Committee of the House of Lords, consisting of the Earl of Cowper, Viscount Powerscourt, and Lords Hatherton, Seaton, and Raglan, and the Petitioners appeared before that Committee on the 16th day of July, 1877, and took the objections raised in their Petition, that the Provisional Order was *ultra vires*. The Committee after hearing Counsel on both sides, and after consulting Lord Redesdale, the Chairman of Committees, upheld the objection of the Petitioners, and struck the West Houghton Order out of the confirming Bill.

It was clear after that decision that an application for a Pro-

visional Order to take water rights would be useless. But the Joint Sewerage Board had another difficulty. By the Act confirming the Provisional Order establishing the Joint Board it was enacted (Sec. 3), "That no works shall be commenced by the Joint Board upon the bed, shore, or banks of the River Thames without the consent, in writing, of the Conservators of the River Thames, signified under their Corporate Seal, and any works constructed upon such bed, shore, or banks shall be executed according to a plan and section, and upon a site to be approved in writing by the Conservators of the River Thames under their Corporate Seal and deposited at their office."

The plan of Mr. Haywood adopted by the Joint Board rendered it necessary to convey the sewage of the constituent places situate in the County of Middlesex across the River Thames in conduits or syphons at three different places, namely, at Asgill Lane, Richmond, to accommodate the sewage of the Heston and Isleworth Local Board, at Ham Fields for the sewage of Teddington and of Hampton Wick, and at a point between Hampton Court and Hampton for the sewage of those last mentioned places. Application was made to the Conservators of the River Thames for their consent to these works, but it was not given, and it was clear that without it the scheme could not be carried out, because as the restriction against works upon the bed, shore, or banks of the River Thames having been inserted in Parliament in the confirming Act, the Local Government Board had no authority by Provisional Order to repeal it. All the plans sent in to the Joint Board save one involved crossing the River Thames, as the district of the Joint Board is intersected by that river.

The Lambeth Waterworks Company and the Chelsea Waterworks Company each drew the water which they supplied for the use of the Metropolis from the River Thames

at a point between Kingston and the mouth of the River Ember, known as Seething Wells. In 1871 the Lambeth Company obtained an Act of Parliament authorising them to remove their intake to a part of the River Thames above the junction of the Mole with the Thames, and which is some two miles above the mouth of the River Ember; and in 1875 the Chelsea Company also obtained an Act of Parliament to remove their intake to a spot above and adjoining the new intake of the Lambeth Company. These new intakes and the necessary works in connection therewith were completed and made use of some time before the Joint Board had adopted Mr. Haywood's scheme. So soon as it was known that the Joint Board had adopted that scheme, letters appeared in the *Times* newspaper, alleging that Mr. Haywood's scheme would foul the water supplied by those two Water Companies to the Metropolis, because the effluent water from the land upon which the sewage was to be purified would flow into the River Thames through the River Ember at a point above the intakes of those two Water Companies. These letters were answered by the Chairman of the Board, in which he pointed out that the Companies having, in order to obtain a purer supply of water at the instance of the Public Health Authorities, removed their intakes to West Moulsey, so as to avoid the dirty water of the River Mole, would never again make use of their disused intakes lower down; but the Joint Board were convinced that whatever the motives of the outcry the possibility of their effluent water reaching the Metropolis through the negligence of the Water Companies would probably prove fatal to their scheme, because it is recorded that one Water Company had continued the use of their intake at Battersea after they had apparently removed to Seething Wells; and so the Joint Board determined in applying for their Act of Parliament to include in it a prohibition against the two Water Companies

using their disused intakes for the purpose of sending water to the Metropolis. The Local Government Board had and have no authority by Provisional Order to repeal or vary the private Acts of the two Water Companies.

There were therefore three things for which the Joint Board, in *bond fide* carrying out their duty, required the assistance of Parliament, as before set out in detail, viz. : the acquisition of water and water rights, the works across the River Thames, and the closing of the disused intakes of the Lambeth and Chelsea Waterworks Companies, of which the two first were absolutely necessary, and the third was most desirable, to carry out the duty imposed upon them.

Sir Thomas Nelson, the City Solicitor, was then the Chairman of the Joint Board, and had had a long Parliamentary experience.

The late Mr. Henry Shrubsole, of Surbiton Hall, Kingston, was then serving the office of Mayor of the borough of Kingston-on-Thames, and as such was an *ex-officio* member of the Joint Board. He had for many years been a partner in the firm of "Dyson & Co.," a well-known and old-established firm of Parliamentary Agents with very large experience. This firm had been professionally engaged for the opponents in the West Houghton case, and knowing that case, both he and the Chairman were of opinion that a direct application for a Bill to Parliament was the proper and only course for the Joint Board to take to obtain the power they required to carry out the selected scheme imposed upon them.

To Parliament accordingly the Board determined to go, in the full belief that it was their clear course of duty, that they were acting for the best interests of the ratepayers of the district, and taking the cheapest and most expeditious course to accomplish the purpose for which they were constituted, and the soundness of their judgment has been abundantly proved by subsequent events.

Their scheme met with the usual opposition. Next to contests about religion there is nothing which waxes so warm as a sewage fight; orators grow apace and become diffuse and excited on this subject, and when much talking is done facts often have a struggle for life, and if the facts do not fit the oratory so much the worse for the facts. The chosen scheme of the Joint Board, the elected representatives of the district, was no exception to the usual rule. After much agitation some 294 persons in the district, out of a population of 110,000, petitioned against the Bill; and neighbouring land-owners, who thought the value of their property or the amenities of their residences might be affected by the execution of the scheme, made their influence felt in Parliament, and notably they frightened the frequenters of the Sandown racecourse into the belief that the proximity of the land where the sewage was to be treated to that place of fashionable amusement might cause it to fall out of favour. The second reading of the Bill was opposed in the House of Commons, and although the President of the Local Government Board, speaking as the responsible Minister of the Crown on a subject in his department, told the House that the Bill was a *bond fide* attempt to carry out the duty cast upon the Joint Board, and that he should feel it his duty to vote for the second reading, and although Lord George Hamilton, another member of the Government, speaking as one of the members for Middlesex, in which much of the district was situate, asked that the Bill might be read a second time, the Bill was lost on a division by 168 noes to 146 ayes.

Thus the Lower Thames Valley was found in this incredible position—the local authorities are required by law, and under severe penalties, to divert the sewage of their respective districts from the Thames. One district after another has produced schemes for obeying the law which have been impartially stifled by the Local Government Board when

their authority for carrying them out was asked for, except in the case of Richmond, which did not carry out the scheme.

It mattered absolutely nothing what the unfortunate district proposed, whether total diversion, irrigation, downward filtration, precipitation, or chemical treatment, nor whether the place of treatment was in the district or out of the district, opponents always appeared, and they always succeeded in preventing the local authority carrying out its plans.

At last came the formation of the Joint Board. They took up the onerous and ungrateful burden of carrying out the orders of the Legislature. Nor did they walk in the dark; the Local Government Board had issued for the guidance of all sanitary authorities the report of a Commission of most able men, who after an exhaustive examination of the various plans in operation, both in England and on the Continent, united in renewing the recommendation of former Royal Commissions that irrigation on land was the best and safest mode of dealing with sewage.

The Joint Board acted on this authoritative advice; their engineer was an able and competent adviser—Colonel Haywood, the Engineer of the City of London. He was assisted by another engineer well-known in sanitary matters, Mr. Peregrine Birch. One of Colonel Haywood's competitors for dealing with the sewage of the Joint Board, Mr. Mansergh, C.E., to his great honour, made an independent examination into Mr. Haywood's scheme, after the rejection of his own, and gave it his cordial support. Other eminent engineers, agriculturists, and sanitarians—Sir John Coode, C.E.; Professor Frankland; Dr. Tidy; Colonel Jones, V.C., C.E.; Edwin Chadwick, C.B.; Baldwin Latham, C.E.; Hawksley, C.E.; Grantham, C.E.; Chalmers Morton; G. J. Symonds; Professor Ansted, Dr. Alfred Carpenter, Dr. Hill, of Birmingham; Mr. Clare Sewell Read, and Buchanan, C.E., expressed opinions favourable to the scheme, and were prepared to

testify in its support; as did also Mr. Ripley, C.E., the assistant of the late Mr. Menzies, in successfully dealing with the sewage of Windsor Castle and of Eton.

With all this care, precaution, and advice, the Joint Board failed in accomplishing the one purpose only for which they existed just as the separate sanitary authorities had failed, and so one more failure was added to the twelve long years of controversy and trouble about this sewage question, during which some of the local authorities had twice approached the Ministers of the Crown, in the hope of obtaining relief. Once they were received by Mr. Bruce (now Lord Aberdare) when at the Home Office, before the care of the public health was transferred to the Local Government Board, and once they have been to Mr. Selater-Booth. They were received with the courtesies which Ministers always show to deputations introduced by their Members, but the promises of consideration of their case have borne no fruit, and now, after seventeen years of weary struggling, and wearied hours, things are as they were, for the sewage still goes into the Thames.

But the Board were not disheartened. After the loss of their Bill upon its second reading without any inquiry into its merits, the Joint Board reconsidered their position; a majority were still of opinion that Mr. Haywood's scheme offered the only solution of the sewage problem in their district, and they resolved again to endeavour to obtain power to carry it into effect. No sooner was this decision known than an information was filed in the Court of Chancery by the Attorney-General at the instance of an opponent of this scheme to restrain the Board paying the cost of their unsuccessful application to Parliament, in the hope that they would thereby be coerced into not proceeding with Mr. Haywood's scheme. The intimidation failed, but the Chancery proceedings had this effect, that the members of the Board were naturally not willing to become personally liable for expenses

incurred in carrying out the duty imposed upon them, and so they determined to apply to the Local Government Board for such powers as that Board could legally give them by Provisional Order, in the hope that if the Provisional Order was made, that the other powers would thereafter be obtained from Parliament.

The application being made, it was referred as usual to an Inspector to examine into. The inquiry commenced on the 24th of February, 1880, and closed on the 6th May, the Inspector having sat for forty-five days, during which he examined eighty witnesses and heard fifteen Counsel and six Solicitors in opposition to the scheme.

This inquiry cost the unfortunate ratepayers of the district, to be exact, £11,699 18s. 6d., exclusive of Colonel Haywood's charges, which are in dispute, amounting to £7,937, and has met with the same fate as all preceding inquiries—a refusal to make the order, accompanied by the recommendation to adopt the scheme of Sir Joseph Bazalgette, which the Local Government Board refused to sanction a few years back; but the hardest fate of all was that the absence of power to take water rights was made one of the reasons for not granting the application. Who shall say that truth is not stranger than fiction?

But the troubles of the Joint Board were not then ended. It has been stated that proceedings in Chancery were commenced to restrain the Joint Board paying the costs of their unsuccessful application to Parliament; and upon this the Master of the Rolls made an order for an injunction until the hearing of the cause. When the refusal of the Provisional Order was known, the Board thought it a waste of money to have the litigation continued, and an order was made by consent of the Plaintiff with the approval of the Local Government Board staying the proceedings, the ratepayers as usual paying the costs of all parties. This has been done, and they come to

£987 14s. 1d. This left the question of how the Parliamentary costs were legally to be defrayed still to be settled. There was but one straightforward course, to obtain authority from Parliament to pay them. There were plenty of precedents for this. The Metropolitan Board of Works incurred several thousands of pounds expenses in going to Parliament to seek a fresh supply of water for London. They were volunteers in that proposal, being under no obligation to do anything of the kind; the auditor disallowed their expenses, but Parliament passed a Bill authorising them to be paid. Again, in 1877 the 33rd clause of the Metropolis Toll Bridges Act enabled the costs of a preceding application to Parliament to be paid, although in this matter also the Metropolitan Board of Works had no duty in respect of freeing those bridges from toll. So in the West Houghton case the costs of the Provisional Order to take water rights, which the House of Lords had, as before stated, thrown out, were authorised to be paid. In 1855, in the case of the supply of water to Glasgow, the costs of an unsuccessful application to Parliament were authorised to be paid out of the rates. In the Glasgow Bridges Act, 1866, a similar power was given, and so in the Edinburgh and District Water Act, 1874, there is a similar power.

None of these cases stood upon so high a footing as the Joint Board's application. "It shall be their duty," said the Act of Parliament constituting them to carry out the main sewerage of their district. Whatever steps they *bond fide* took with an honest desire to discharge this duty are fairly chargeable upon the ratepayers of their district, and so the overwhelming majority of them thought.

There was, in fact, but one opponent of their Bill to defray these expenses—the Local Board of East Moulsey. It was in the proximity of that place that the sewage was to be disposed of, and animosities were very strong. The Bill originated in the House of Lords, and they presented a peti-

tion praying that the Bill "might not pass," but not asking, in the usual way, to be heard against it. It was, therefore, an unopposed Bill. The Local Government Board made a report in favour of the Bill, but with certain suggestions as to verbal alterations in the clauses, which were at once assented to; but Lord Redesdale refused to allow the Bill to pass, and by his fiat alone it was stayed, the reason given by his Lordship being that other public bodies would be making similar applications if this were allowed.

So ended the Session of 1881. The Board had not only failed to advance one step in providing for the sewage of their district, but found themselves unable to pay their creditors, increased by the cost of another application to Parliament.

They had, however, amidst these troubles not forgotten the duty for which they existed, and having learned from the public press that the Metropolitan Board of Works were about to spend a very large sum of money—about three-quarters of a million—in improving their sewage system on the southern side of the Metropolis, they unanimously requested their Chairman to address a letter to Sir James Hogg, the Chairman of the Board of Works, asking that, in re-arranging this system of sewage, the Metropolitan Board would make provision for the main sewer of the Thames Valley Board passing through the Metropolis to their outfall at Crossness, and offering to pay whatever was fair as their share of the cost.

That request was refused by the Metropolitan Board of Works on the ground that they could only provide for the sewage of the Metropolis.

On receipt of this refusal they next determined to seek the advice of one of the most eminent of living engineers, who had taken no part in the previous competition—Mr. Thomas Hawksley. This happened on the 5th January, 1881, and, after careful consideration, he made a report, which was con-

sidered by the Joint Board on the 28th July, 1881, and unanimously agreed to.

The substance of this report was that the Joint Board should collect the sewage of their district at a point near Barnes Railway Station, and thence pump it through the Metropolis, along public highways, through Deptford and Greenwich, to a point in the River Thames near its confluence with the River Darent, just below Dartford.

Although this proposal was unanimously agreed to by the Joint Board, it involved the execution of works outside their district, and principally within the Metropolis. Now the Public Health Act expressly exempts the Metropolis from its provisions, and therefore the Local Government Board had no power by Provisional Order to authorise the main sewer of the Thames Valley Board passing through the Metropolis on its way to the mouth of the Darent. The Thames Valley Board therefore at once applied to the Local Government Board to know if they were prepared to obtain the necessary Parliamentary powers for this Board to carry out Mr. Hawksley's recommendations, and this the Local Government Board declined to do.

Considering the number of the local authorities, and the mass of underground sewers, water, gas, and telegraph pipes, the Board's sewer would have interfered with in its passage through the Metropolis to the Thames, it was an absolute impossibility to carry out the work without Parliamentary authority; and inasmuch as the Master of the Rolls had decided that whatever the necessities of the Board might be to go to Parliament to carry out their duties, they had no authority to apply to Parliament, the Board had but one course open to them, and that was to confess their inability to carry out Mr. Hawksley's recommendations.

Lastly, they turned their attention to the only remaining solution of their difficulty, and that was to deal with the sewage

by purification and precipitation within their own district. This system had hitherto found but few advocates at the Joint Board, because of the known difficulty of dealing with the precipitate, which is technically known as "sludge." Many places which had adopted the system had been obliged to abandon it, not being able to get rid of the sludge.

Quite recently, however, the ingenuity of an inventor has overcome this difficulty. The sludge is estimated to contain from 90 to 95 per cent. of water, and, in order to bring it into a portable form, the practice hitherto has been to spread it over the land and allow it to dry, the process taking a long time in our moist climate, and if the temperature be at all high, being at times an offensive one to the smell and at all times to the eye—black mud being not a picturesque object.

But this inventor has produced a press which, by means of atmospheric pressure, forces the sludge into a series of canvas holders, and squeezing out the greater part of the water, leaves the sludge to be taken out of these holders in the form of solid cakes, in which condition it is easily handled, and either taken to the land and used as manure or taken right away. Its operation may be seen at the Leyton Sewage Works in Essex, just outside London.

Messrs. Mansergh & Melliss, two eminent civil engineers, practised in the construction of sewage works, were accordingly instructed by the Board to see if the sewage of the district could be dealt with within their district by purification and precipitation, and to select a site where the sludge might be easily taken away if there were no demand for it on the spot for manure.

In the month of October, 1883, they presented a report to the Board, in which, after careful consideration, they recommended that no attempt should be made to deal with the sewage on several sites, but that, for reasons both of economy and efficiency, it should all be collected together at one spot. The three sites they indicated as suitable were,

one at Ham Fields, some market gardens at Mortlake, and a field in the parish of Barnes, near the Soap Works at Hammersmith Bridge.

The Board carefully considered these recommendations, and they came to the unanimous conclusion that, as the site at Ham Fields and the site at Barnes had both been the subject of previous inquiries, and refused by the Local Government Board, they had no option but to choose the site at Mortlake. This has been done, and the invariable outcry again commenced in opposition to the sewage being thus disposed of.

About two miles lower down the river, on the opposite bank, are the sewage works of the Local Board of Chiswick. The land taken for these works was the property of His Grace the Duke of Devonshire, and he voluntarily parted with it to the local authority for the purpose of relieving the parish of Chiswick from its sewage troubles.

These works are within 276 yards of the grounds of Chiswick House, His Grace's ancestral seat, and the house itself is only distant 420 yards from the works. This house is in the occupation of the Marquis of Bute, who has renewed his tenancy since the works have been in operation. With this example before them of sewage works being established without offence within so near a distance of such an historical residence as Chiswick House, the Board reasonably hoped that the objections taken to their proposed works would prove futile.

The occasion was, however, as usual taken advantage of by the critics and their abettors, who, notwithstanding all that had taken place, appeared in considerable numbers before the Inspector of the Local Government Board, when he held the inquiry prescribed by the Public Health Act. Mr. Harrison was again the inspector, and after a patient hearing, extending over fifteen days, in which counsel and witnesses were heard before him, the Local Government Board, upon careful consideration of his report, made the order asked for, and which now awaits

the sanction of Parliament. The order is carefully guarded by special provisions inserted by the Local Government Board, giving them not only a present but a continuing control over the works. This last inquiry has cost the unfortunate ratepayers about £4,000.

To make this history complete, it should be stated that, undeterred by the failure of their Bill in 1881, they again promoted a Bill in the following Session of Parliament, authorising them to pay the costs of their previous applications. This Bill was again opposed by East Moulsey, and being referred to a Select Committee of the House of Commons, was unanimously passed by them. It had again the misfortune to be opposed in the House of Commons itself, but got through finally without a division; and going up to the House of Lords, the decision of the Commons was not interfered with, but it became law, and the debts were paid.

It may not be uninteresting to note what the total expenditure incurred by the Board has been from first to last, without their having anything to show for it except the furniture of their Board Room :—

Paid competitors for first set of plans	...	£600	0	0
Paid Mr. Hawksley for his Report and advice	... ..	210	0	0
Costs of the Chancery suit	... ..	937	14	1
Costs of application to Parliament	... ..	2,304	5	2
Costs of application for Provisional Order...	...	11,699	13	6
Costs of the Inquiry, 1884	... ..	4,000	0	0
		<u>£19,751</u>	<u>12</u>	<u>9</u>

Mr. Haywood's account, *in dispute*, for his services in support of applications to Parliament, and for Provisional Order, still outstanding and unsettled 7,937 0 0

And that everything may be seen at one glance, there is recapitulated here what the various Local Authorities have spent for similar applications for Provisional Orders :—

Kingston Ham Inquiry in 1869	...	...	cost	£900
Richmond Malden Inquiry in 1871	...	...	,,	200
Kingston (Walton Land) in 1872	...	...	,,	200
Richmond in 1873	...	...	,,	442
Barnes, Mortlake, and Kew in 1874	...	...	,,	500
Kew alone in 1877	...	...	,,	110
Barnes and Mortlake in 1877	...	...	,,	600
Esher in 1877	...	...	,,	665
Heston and Isleworth in 1877...	...	...	,,	268
				<u>£3,880</u>