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REPORT ON THE OPERATIONS

OF THE

SANITARY DEPARTMENT

CARRIED OUT WITHIN THE

FIVE YEARS ENDED 30TH APRIL, 1882.

BY

KENNETH M. MACLEOD, - SANITARY INSPECTOR.

[PRESENTED TO THE HONOURABLE THE LORD PROVOST, MAGISTRATES, AND COUNCIL OF THE CITY OF GLASGOW.]



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THE SANITARY INSPECTOR'S REPORT.

To the Honourable the Lord Provost, Magistrates, and Council of the City of Glasgow.

My LORD AND GENTLEMEN,

I have the honour to submit for your information and approval, in the appended tabulated divisions, an account of Structural and other Sanitary Improvements effected throughout the City by the Inspecting Staff in each of the five years, ended 30th April, 1882.

These are placed under the following heads, viz. :---ist, Nuisances; 2nd, Lodging-houses; 3rd, Infectious Diseases; 4th, Female Visitations; 5th, Bake-houses; 6th, Food, Drink, and Drugs Adulteration; 7th, Unwholesome Food; 8th, Indoor Office Service; 9th, Dairies, Cow-sheds, and Milk Shops; 10th, Reception-house; 11th, Female Lavatories; 12th, Free Vaccination; the works set forth in each have been so frequently referred to in former Reports, and are so clearly defined in the divisional margin as to render further comment on them unnecessary.

I shall therefore only briefly note some improvements adopted in carrying out the statutory powers conferred on you as Local Authority, some additional work thereby imposed on this Department, and some suggestions made as to an extension of the Disinfecting Branch of the Service within the period embraced in the Report.

• Under the head of "NUISANCES" we had, in dealing with structural defects, often to contend with defectively-jointed soilpipes and drains in connection with sinks, wash-hand basins, and water-closets, which exposed the dwellings where they were placed to the invasion of sewer gas, and these being in many cases inaccessible from the stupidly persistent practice of laying them beyond convenient reach, baffled the efforts of the most skilful in applying a proper remedy.

But we have *now* to a very considerable extent overcome this difficulty by the *free* use of the smoke test—a simple and most valuable invention for the discovery of these dangerous leakages.

This test is applied by a small machine with powerful fanners, which blow the smoke of ignited cotton waste, saturated with oil, into the whole drainage system of the tenement operated upon,



by openings in the soil pipes, or otherwise, and which in due time issues at all imperfect joints and connections, disclosing their position with perfect accuracy.

The operation is most successful, where it is practicable to expose all the pipes along their course from the house to the main sewer, and in all cases every effort is used to accomplish this.

The Inspector of the district in which the drains are situated superintends the process in presence of a tradesman employed by the owner, who notes the leakages, and thereafter closes them up, when another test is applied, and the absence of smoke-issues along the lines proves the completion of a satisfactory remedy. A written report of this is then given to the owner, which, together with the practical knowledge of drains and their connections brought to bear on the work by the experienced and welltrained Inspector, inspires confidence in the efficacy of the cure, and is greatly appreciated by both owners and occupants—doubtless all the more by the former that the whole is carried out ENTIRELY FREE OF CHARGE.

This laudable undertaking, in the interest of the citizens, cannot be too widely known, nor be too largely taken advantage of-sewer gas being, it is well known, not only subtle in its diffusion, but believed to be almost odourless in some of its forms, giving no warning of its presence to those most likely to suffer from its viru-There can, therefore, be no assurance of escape from its lence. deleterious effects without the application of a proper test, while water-closets connected with main sewers are permitted to remain within the walls of dwelling-houses, whether these be large, in the occupancy of the rich, or *small*, in the occupancy of the poor. And as sanitary reform and the prevention of infectious diseases depend so much on unity of action, no apology need be made for saying that every Local Authority in the country, with a proper regard for the welfare of the population in their district, and a conscientious desire to faithfully discharge the important statutory powers conferred on them, might well and profitably imitate this prevention of disease and life-saving service.

In connection with the foregoing, it may also be stated, for the information of ratepayers, that defects in the arrangement for securing light and ventilation in dwellings, factories, workshops, &c.—whether discovered by the Inspectors, or reported to the Department by persons suffering therefrom—were carefully examined, and suggestions for their remedy, with drawings where required, furnished to those responsible for their correction, and every assistance given during the process of the work to secure satisfactory results.

On 15th November, 1881, the Board of Supervision asked, through Mr. Lang, a Return, for the Home Secretary, of all the works in Glasgow which should be included under "AN ACT to consolidate the Alkali Acts, 1863 and 1874, and to make further provision for regulating Alkali and certain other works in which noxious or offensive gases are evolved " (11th August, 1881); and this Department was asked, and consented to make the survey, which gave the officers a most incredible amount of trouble, as every chemical work within the municipality had not only to be visited, but the special manufacture of each ascertained, to make accurate selections. These, amounting in all to thirty, were made up on a list, with names of owners and situation of works tabulated, and duly forwarded by the same channel through which the order was received.

Under the heading of "LODGINGS," new rules and regulations for the guidance of keepers of common lodgings were framed under powers contained in the Public Health (Scotland) Act, 1867, by a committee consisting of Bailies Ure, Thomson, and Farquhar, and adopted with unanimous consent of the Council on the 12th day of April, 1880. These rules are preferable to those formerly in use under the Glasgow Police Act, in respect that no person can now open a lodging not formerly registered, until he first satisfies the Local Authority as to the respectability of his character and as to the proper sanitary arrangement of his house. The model lodgings are also placed under these rules, with consent of the Committee of Management.

The rules and regulations number in all twenty-three, and are under the following six heads, viz. :---

1st, For the well-ordering of common lodging-houses.

2nd, For the separation of the sexes.

3rd, For fixing the number of lodgers which may be received in each such house, and in each room therein.

4th, For promoting cleanliness and ventilation of such houses.

5th, For the inspection of such houses, and the conditions and restrictions under which such inspections may be made. 6th, Penalties.

These, with the following copy of the preamble—the interpretation of the term "Common Lodging-houses"—the first and second Rules—the authorization by the Lord Provost, and the confirmation by the Board of Supervision—will give a pretty clear idea of the comfort secured for the lodgers whose circumstances necessitate their resorting to these places.

RULES AND REGULATIONS.

Rules and Regulations respecting Common Lodging-houses, made in virtue and in terms of "The Public Health (Scotland) Act, 1867," by the Magistrates and Council of the City and Royal Burgh of Glasgow, acting under "The General Police and Improvement (Scotland) Act, 1862, Order Confirmation (Glasgow) Act, 1877," in execution of the powers and duties of "The Glasgow Police Acts, 1866, 1872, 1873, 1875, and 1877," and "The Glasgow Municipal Act, 1878," being the Local Authority for Glasgow under the said "Public Health (Scotland) Act, 1867."

As defined by said Public Health (Scotland) Act, 1867, "Common Lodging-house" signifies a house or part thereof where lodgers are housed at an amount not exceeding fourpence per night for each person, whether the same be payable nightly or weekly, or at any period not longer than a fortnight, or where the house is licensed to lodge more than twelve persons; the Local Authority being also empowered from time to time, on the approval of the Board of Supervision, to raise or diminish said sum payable per night, but so as not to exceed sixpence per night; and the "Keeper of a Common Lodging-house," includes any person having or acting in the care and management of a Common Lodging-house, as above defined.

I.-FOR THE WELL-ORDERING OF COMMON LODGING-HOUSES.

1. Before any person can become Keeper of a Common Lodging-house, an application to the Local Authority for registratration shall be lodged with the Sanitary Inspector, appointed by the Local Authority, at his office, setting forth the situation of the house, the number of rooms purposed so be set apart for lodgers, the number of applicant's family, and the space set apart for them, and must be accompanied with a certificate of character, by three inhabitant householders of the city, respectively assessed for poor's rates, in terms of the 59th section of the Public Health (Scotland) Act, 1867, and for this purpose a schedule or form will be furnished by the Sanitary Inspector.

2. When the Local Authority are satisfied with the character of the applicant for registration, and the suitableness of the premises intended to be used as a Common Lodging-house, its conveniences and general requirements, they may register accordingly, and furnish a registration ticket to the party registered, setting forth the number of lodgers to be received into each separate room of the house, with copies of the Rules and Regulations confirmed under said Act, and said Rules and Regulations, as directed in the 63rd Section of the said Act, shall at all times be placed, or hung up and kept legible in a conspicuous part of each room in which lodgers are received, and any person or persons wilfully destroying or defacing such Rules and Regulations and Register Ticket, or either of them, shall be liable in the penalty provided for in Article 23 hereof, and the keeper shall cause the said Rules and Regulations to be observed within his Common Lodginghouse.

Signed by me, Chairman, and on behalf of, and as authorised by, the said Local Authority of Glasgow, at Glasgow, this Twelfth day of April, Eighteen hundred and Eighty years.

J. LANG, Clerk.

WILLIAM COLLINS, Lord Provost.

BOARD OF SUPERVISION, Edinburgh, 1st July, 1880.

Confirmed by the Board of Supervision, *ad interim*, and under this reservation, that these Regulations are to be held to be confirmed without prejudice to the power of the Board to require the adoption of such other Rules and Regulations as may from time to time be deemed necessary by them.

> JOHN SKELTON, Secretary.

Considering the desire that exists on your part to promote the "Dry Closet System," where applicable throughout the City, I cannot do better than quote and give prominency to the following Report on experiments made in a model lodging-house, which have given such unvaried satisfaction that the plan of closet on which these were made is still used-with approval.

REPORT ON THE DRY CLOSET SYSTEM IN DRYGATE MODEL LODGING-HOUSE.

We have this day visited the Drygate Lodging-house to examine the results of an experiment on the Dry Closet System, carried out by a Sub-Committee of the City Improvement Trust.

We understand that this experiment has now been in operation for a considerable time, and has given great satisfaction, and, after careful examination, we are convinced that the arrangement possesses principles calculated to secure complete success in the object aimed at.

The plan consists in carrying up an air-shaft through the closets to the outside of the building, above the roof, with an Archimedean screw on the top to create a current of air up the shaft.

Each closet has an opening into this shaft, immediately over the top of the pan, and as no air can get in except through the opening which is under the seat of the closet, all smells or effluvia are carried up the shaft, and the closet itself kept constantly sweet and pure.

In order more effectually to ensure a current of air in the shaft, a very simple device has been adopted, namely, to utilize the gas jet, which is required to be kept lit all night, by placing it in the ventilating shaft with a glass pane in the form of a lantern, thus making it serve the double purpose of creating a current and lighting the closet at the same time. The current created by this arrangement was tested by the anemometer, which indicated a velocity of 100 feet per minute.

These closets are now in use, with an average nightly population of 280 lodgers, and the manager of the house assured us that there is no perceptible smell at any time. The full pans are removed periodically by the Cleansing Department, and fresh clean ones substituted.

It may be interesting in a single sentence to look at the effects of this system—*First*, The lodging-house itself is saved the expense of the troublesome plumber work that water-closets entail; *second*, the excreta are kept out of the sewers, saved, and utilized; *third*, connection with the common sewers is obviated, and foul gases therefrom most effectually excluded from the lodging-house.

These closets, it may be further added, can be made applicable to factories, public works of all kinds, police offices, prisons, houses of refuge, poorhouses, schools, &c. ; and, having seen the experiment practically demonstrated, we can confidently recommend their adoption in such places as safe and inoffensive conveniences.

We beg therefore to commend the action of the Improvement Trust, and express our entire approval of the intelligent, simple, effective, and ingenious plan devised, and so satisfactorily carried out by Councillors Downie and Ure, the gentlemen forming the Sub-Committee entrusted with the experiment.

(Signed) JOHN BURT. WM. R. W. SMITH.

20th September, 1878.

It will be observed from the Tables, under the head of "NIGHT INSPECTION," that, in cases brought up before the Police Magistrates for overcrowding ticketed dwellings, the "admonitions" considerably exceed in number the "fines." This, it is but right to say, arose, on the one hand, from sympathy extended to a class of delinquents who are really very poor and unable to pay rent for larger dwellings, and, on the other, from a very proper desire to punish a class with large incomes who would be well able to pay for better dwellings were they provident in their habits and had the comfort and health of their families more at heart than they appear to have.

Under the head of "INFECTIOUS DISEASES," the house-tohouse visitation by the Inspectors for the discovery of concealed cases of infectious diseases, their close attention to cases treated at home, and their prompt action in the removal to hospital of those situated where isolation was deemed best in their own and the public interest, with all the advantages thereby gained, which have been so frequently submitted to you, may be passed over without remark, and reference made, for the amount of work done, to the figures in the Table. But the Disinfecting Branch calls for more than a passing notice, and a brief sketch of its origin and progress, with suggestions for its extension, made in February, 1881, through Bailie Lamberton, Convener of the Hospital Committee, may be advantageously placed on record here.

Through the courtesy of Mr. Lang, the Reporter was furnished with extracts from the Police Board Minute Book showing that— The Health Committee of the year 1863, fully alive to the great and widespread danger arising from the practice, then and long previously pursued, of washing infected clothing in tenement washing-houses common to the tenants thereof, resolved, under statutory powers, to prohibit its continuance, and in lieu thereof to provide a specially-appointed wash-house, to be directly under their own control, where all washings of this kind should in future be carried out for the citizens, free of charge ; and Councillor Ure, Dr. Gairdner, and the Chief Constable were deputed to look out for suitable premises for that purpose.

These gentlemen shortly thereafter recommended a place at the head of close No. 66 High Street, which, meeting the approval of the Committee, was fitted up, and opened on the 21st day of September, 1864, under charge of the Cleansing Department. The work continued therein until the year 1871, when it was removed to a more commodious and better-appointed house at Belvidere, which is still in use, but now found to be inadequate for satisfactorily accomplishing the ever-increasing demands on its limited resources.

Returns kindly supplied by Mr. Young show that on the opening day of the wash-house in High Street there were only 19 articles of clothing washed, and a steady annual increase of work from that day to the present appears in the Sanitary records. But without entering into the detail of every year in this upward course, it may suffice to give quotations from each of the fifth years since its opening.

In the first year, ending September, 1865, there was an aggregate of 29,489 articles disinfected and washed. In the year 1870 there were 39,515. In the year 1875 there were 126,748. In the year 1880 there were 206,953; and in the nine months from the date of the transfer of the whole work to the Sanitary Department, 240,000—being nearly twelve times more in number than were washed in the first year at High Street, and nearly five times more than were washed the first year after the work was removed to the present wash-house at Belvidere.

This great increase of work, it should be noticed, was not due to a corresponding increase of fever cases in the City, as might naturally be expected, but rather to the reluctance with which the citizens at first, and for some time after the wash-house was opened, responded to our arrangements to aid them in their fever troubles —some from concealment of their cases, some from the fear that mixing their clothes with others might bring a return of worse contaminations, and some from the belief that their washings could be done better at home than elsewhere. Happily that feeling of reluctance is fast giving place to one of acceptance and general appreciation, and the services of this branch of the Department are now sought after by all classes (the very highest and the very lowest) both within and, if encouragement were given, far beyond the City boundary.

The records of fever cases and washings show this very clearly. Therein it is found that in 1865, when the wash-house was first opened, there were 6,653 cases of infectious diseases, which produced 29,489 articles of clothing for washing; and in the year 1869, with only 3,389 similar cases, there were 39,515 articles-being an increase of 10,000 over the former-named year to half the number of cases; and again in the year 1871, when the infected cases reached the large total of 11,861, only 52,736 were received-a fourth more than the former number, with three times the number of cases in that year. And in further proof that the fluctuations in fever rates do not yet govern the number of washings, the recorded cases in 1877 number 5,168 and the articles of clothing 151,165 -an increase of more than double the number of articles washed in 1871, with considerably less than half the number of patients registered that year; or, to put it more forcibly in another way, the average number of articles received the first year of our washings from each patient was four articles, and the average number received in 1880 from each case was 36.

It may therefore be fairly assumed that future washings will soon come to be regulated, as they ought to be, in a much greater degree by the number of fever cases in the City, and with this prospect we can estimate the amount of work that may be expected in the immediate future, by basing calculations on the annual average of infectious diseases recorded during the past eleven years, which is 84,190 cases, and allow 36 articles of clothing for each patient-the average of last year-which would yield at the very least a daily average of 1,050 articles; but in our calculations we must provide for even more than this number, for the time cannot be far distant when the Legislature will make it compulsory on all persons having infectious disease in their house to report the same to the Sanitary Authorities, and when that becomes law a considerable increase in the number of the cases I have given may be looked for; and this, it must be borne in mind, is exclusive altogether of the pressure of work that would arise in years of severe epidemic.

Having thus pointed out the past and prospective progress of the work, let me now describe the staff and appliances that have been used in carrying it out. The staff at the opening of the establishment in High Street numbered two washerwomen; it now, at Belvidere, includes a permanent staff of ten washerwomen, and several supernumeraries at call for busy days, of whom a daily average of thirteen have recently been employed; one superintendent, one foreman, three vanmen, three collectors, and three horses, exclusive of the epidemic officers who daily find out and arrange the orders for work.

The machinery in High Street consisted of one boiler, one heating stove, and a number of tubs. These were supplemented at the removal to Belvidere by a hydro-extractor driven by steam engine power, with a drying stove, and water supply, heated by steam from the Hospital boilers. A plan of the present washhouse submitted to the Committee showed its extent, arrangement, and machinery. On the plan, lines were shown indicating eighteen wash-tubs, but as each washerwoman requires three tubs for herself-one for soaking coloured articles, one for washing white clothing, and the other for rinsing-there is actually only accommodation for six washers, and greater use of the tubs than this it has been found retards the work. So that on the days when the pressure of work necessitates the employment of twentytwo women, recourse must be had to the wash-house in connection with the small-pox wards-an arrangement unsatisfactory for speed, correctness, and supervision.

Then, with regard to the water and heating appliances, the hotwater supply, from the smallness of the collecting-tank and the heating power of the boiler, is quite unequal to meet the urgency of the work on days when the number of articles exceeds 1,200 which it often does in the variation of daily numbers throughout the year. The heating power of the stove is also insufficient for this number of clothing, causing delay and outlay for overtime in the completion of the work, which must, in every case, be overtaken on the day on which the clothing is received.

The wash-house consists of four divisions—viz., an office for the foreman; a room for receiving the bundles of clothing brought in by the van; a room for assorting, preparatory to washing, and despatching; and the wash-room.

Each of these places requires considerable space, to prevent confusion and wrong mixing of the numerous separate lots, and the expenditure of valuable time, which, it has been found, are all entailed on busy days by this deficiency in one and all of these places.

It was then pointed out that the remedy required for this limited space and appliances is—1st, To provide a new wash-house, with an area double the extent of that contained in the present, and accommodation for fumigators, vanmen, and horses adjoining; 2nd, an arrangement for a more abundant hot-water supply; 3rd, an additional drying stove, with more complete heating and ventilating powers than at present exist; and, 4th, additional machinery for more speedy and economical disinfecting and washing. The first three of these requirements can be easily provided in any extension you may agree upon; but, as these would be incomplete without the substitution of washing-machines for the present slow and expensive mode of hand-washing, the following information thereon, with accompanying illustrations, were submitted:—

First, A Patent Rotatory Machine for washing light articles, offered at \pounds_{130} ; second, Macalpine's Patent Washing Machine, for washing heavy articles, such as blankets, sheets, &c., offered at \pounds_{70} ; and, third, a Hydro-Extractor, offered for \pounds_{42} . The makers of these machines guarantee that they possess durability, speed, and efficiency, and that a saving of 25 per cent. equally in labour and soap would be effected by their use; and this is also certified by several public authorities in England, and the washhouse manager of our own Royal Infirmary, where they can be seen in full operation.

Now, calculating that *two* Rotatory Machines, *one* Macalpine's Patent, and *two* Hydro-Extractors, will be provided at an outlay of $\pounds 410$, the saving on labour and soap that would be thereby gained may be estimated, on the present annual outlay, at $\pounds 181$ —a sum that would soon repay the outlay, and this, altogether exclusive of the great saving of time that will be gained, by an increase of stoving power.

It was further added that a Disinfecting and Vermin killing Stove is required, but as the particulars regarding "Ransome's Patent Stove" have been already placed by Dr. Russell under your consideration, I shall not further refer to it, than to say, that the agent who offered the aforesaid washing-machines, writes that he can give a cylindrical machine, arranged for disinfecting, with high-pressure steam, which, he alleges is superior for the purpose, and less expensive than hot air, the disinfectant used in "Ransome's."

A stove of different construction can be seen at the Royal Infirmary, and a very superior one is now in use in Greenock Poorhouse.

Along with the foregoing information and suggestions, a plan of a new wash-house, designed to give space and improved working machinery sufficient to overtake any reasonable amount of disinfecting and washing work that may be expected to arise in connection with infectious diseases in the City for many years to come, was submitted, and the consideration of both has since resulted in a determination to carry out the whole to a satisfactory conclusion, under charge of the Master of Works, on a site at the eastern boundary of the lands of Belvidere, facing London Road.

It only remains to point out under this head, by the following Table, the annual outlay on this account in the year 1878-79, before transference of the disinfecting branch from the Cleansing to this Department, and in each of the three subsequent years, which shows an annual reduction in the latter, with an excess of

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Gross Saving, compared with 1878-79.	. :		:	£4,289 7 6
Average of these 3 Years.	5;298	7,100	288, 561	£3,235 12 7
Total of Years. 1879-80. 1881-82.	15,895	21,302	865,683	£3,310 19 10 £2,633 0 0 £9,706 17 9 £3,235 12 7 £4,289 7 6
1881-82,	4,645	7,809	309,443	£2,633 0 0
1880-81.	6,315	8,946	348,404	£3,310 19 10
1879-80.	4,935	4,547	207,836	£3,762 17 11
1878-79.	7,123	6,742	216,469	£4,665 8 5 £3,762 17 11
NUMBER OF	Houses Whitewashed,	Do. Fumigated,	Articles of Clothing Washed,	Expenditure,

work, effecting, in the aggregate, a saving in these years of $\pounds_{4,288}$ 125. :--

	£	5.	<i>d</i>
1874-75	3,760	15	. 6
1875-76	3,579	17	6
1876-77	3,372	I	4
1877-78	3,966	16	2
1878-79	4,665	8	5
1879-80	3,762	17	II
1880-81	3,310	19	10
1881-82	2,633	0	0

LIST OF ANNUAL OUTLAY, FOR WASHING AND DISIN-FECTION, DURING THE PAST SEVEN YEARS.

It may be further mentioned under the "HOSPITAL" head that, since date of last Report, negotiations were instituted between the Health Committee, the Parochial Boards of City, Barony, and Govan, and the Juvenile Delinquency Board, with the view of adjusting long-delayed claims for the accommodation in the City Fever Hospitals of persons resident in the City chargeable to these institutions, which resulted in an amicable settlement and an arrangement on our part to grant free admission and treatment to all such poor in future, in order that a more speedy grasp of all infectious cases eligible for hospital treatment may be obtained by the Department.

The FEMALE VISITOR-appointed soon after the extension of the staff in 1870, and placed amongst the lowest classes in every district to instruct them as to cleanliness of person, children, beds, and houses, and to point out how they and their children in these respects may imitate and acquire the habits of the better class, and the advantages to be derived by due observance thereof-when she found slovenly housekeepers, giving them practical lessons in sewing, and, where required, in bed-making, clothes-mending, and other domestic duties, pointing out the propriety of making their little homes as comfortable as possible for their husbands and families, inculcating the benefit to be derived by regularly carrying out their turn of cleaning and washing lobbies and stairs leading to their houses, noting down the locality, number of inmates in each house; in obstinate cases returning again and again, and, by kind persuasion, persevering in her instruction until her aim of securing cleanliness was obtained.

She further noted in her report book any defect or want of convenience, or any case of sickness she observed, and reported the same to the District Inspector, making herself generally useful and valuable in her share of the work of the Department.

But unfortunately these officials, getting better appointments, gradually resigned, and candidates for the vacancies with the proper qualifications not having presented themselves, this branch is now closed.

Whether it should be again opened, with an offer of increased remuneration to induce a superior class of ladies to give their services, is a question worthy of your best consideration, as there can be no doubt it would form a valuable auxiliary to the Department.

The BAKE-HOUSE INSPECTION, under the Bakehouse Regulation Act of 1863, formerly carried out in all its provisions by this Department, is now, so far as relates to the employment of young persons and their hours of labour, carried out by the Government Inspector of Factories for the Western District of Scotland. But they are still under our surveillance for the purpose of enforcing cleanliness, ventilation, and other sanitary requirements. Government Inspector will doubtless agree with me that it was a blunder on the part of Government to take the powers of the Act out of our hands, seeing that it contains a most important provision for the protection of persons under eighteen years of age from being "employed in any bakehouse between the hours of nine of the clock at night and five of the clock in the morning," which our night inspectors could much better keep in check than an officer overwhelmed with other onerous duties over an extensive and, for one officer, almost unworkable area in seasonable hours, which leaves no margin of time for the performance of night duty; and indeed this remark applies equally to the supervision of factories and workshops-especially those in which females are employed, from whom numerous complaints are received that their services are overtaxed to most unseasonable hours.

Under the FOOD, DRINK, and DRUGS ACT OUR Operations were suspended for a considerable time, in consequence of the adverse decision in the Appeal Case, Davidson v. Macleod, when it was held by the Judges in the Supreme Court, first, that the section on which the prosecution was founded referred to the adulteration of articles of food by the introduction of foreign substances; and, second, that a purchase by a public officer under sections 13 and 17 of the Act cannot be followed by a prosecution under the 6th section of the Act, unless it be to his prejudice, which the Court found it was not in this case.

This decision led to the passing of the Act known as "The Sale of Food and Drugs Act Amendment Act, 1879," which Mr. Anderson, one of the Members of Parliament for the City, took such an active interest in promoting.

It contains the following section :---

"In any prosecution under the provisions of the principal Act for selling to the prejudice of the purchaser, any article of food, or any drug, which is not of the nature, substance, and quality of the article demanded by such purchaser, it shall be no defence to any such prosecution to allege that the purchaser, having bought only for analysis, was not prejudiced by such sale. Neither shall it be a good defence to prove that the article of food or drug in question, though defective in nature, or in substance, or in quality, was not defective in all three respects."

When the Act came into operation we again began to purchase samples, and prosecuted adulterations with considerable success, until the cream case, Morton v. Green, was appealed from the Sheriff Court of Renfrewshire to the Court of Justiciary, when it was held that, where there is no definite standard of quality of an article, it is no contravention of the Sale of Food and Drugs Act, 1875, section 6, to sell as such article at a low price an inferior quality of the article undiluted with any foreign substance.

Another case, Warnock v. Johnston, was an Appeal against the judgment of Sheriff Mair, Airdrie, who convicted and fined appellant five shillings, under the 6th section of "The Sale of Food and Drugs Act, 1875," on 1st May, 1881, for having sold to the Sanitary Inspector, and to his prejudice, a pennyworth of buttermilk, which was not of the nature, substance, and quality demanded, inasmuch as it was certified to contain 30 per cent. of added water. The Appeal was sustained, on the ground that the case fell within exception 4 to clause 6, and that added water was actually necessary to make buttermilk.

Another case, Macleod v. Moore, in the Sheriff Court, Glasgow, was that of Quin Morrison Moore and Thomas Moore, milkdealers, charged with selling skim-milk certified to be adulterated with 22 per cent. of added water, before Sheriff Balfour, on Saturday, 7th January, 1882, when he decided adversely to the Local Authority by sustaining the objection taken by the defendants' agent—That the Analyst's certificate did not comply with the requirements of the Act, which prescribes that he shall specially report on the certificate "whether any change had taken place in the constitution of the article that would interfere with the analysis." Instead of doing so, he merely said that the sample was "quite fresh, when tested," which seemed a substantial compliance with the provisions of the Statute, but could not be accepted, as it was held in a recent decision that the exact words of the Act must be used, to protect the seller.

His Lordship, notwithstanding this, considered it his duty to give his opinion on the broader grounds upon which this case was defended. Following the dictum of the Court of Session in the cases, Davidson v. Macleod, and Morton v. Green, he considered that the prosecution failed to adduce direct evidence to show that on the part of the seller there had been a fraudulent imitation or counterfeit; that water, being the substance added, is not foreign to skim milk, but is actually present in it to the extent of 90 per cent. or thereby; and that there is no statutory standard of quality to guide the Courts, thereby rendering him unable to convict the respondents.

Notice of Appeal in this case was lodged with the Sheriff, but, not being deemed on all required points a suitable case, it was withdrawn, and instructions given to try another; when in March last the following case was submitted to the Sheriff:—

At a Summary Court, held on Wednesday, 15th March, 1882— Sheriff Balfour on the Bench—a milk-dealer, named Felix O'Neil, No. 36 Claythorn Street, was accused at the instance of the Sanitary Department of having sold, on the 9th ultimo, twopence worth of sweet milk, which, on being analyzed, was found to contain 27 per cent. of added water. He pleaded not guilty.

Messrs. Inglis and Armstrong, sanitary officers, and Dr. Clark were examined for the prosecution. The last-named gentleman stated that on analysis he found the milk to contain 2.28 of fat and 6.27 of solids not fat. During last year, and the portion of the present year already past, he had analyzed from 10 to 20 samples of milk every week, coming direct from farmers sending milk into the City, and in only *one* case was the amount of "solids not fat" under 9 per cent. In that instance the amount was 8.8 per cent. The defence contended that, even assuming the milk to be as stated by Dr. Clark, that did not infer punishment against the seller, as the Act did not provide for any standard in the "amount of solids not fat." His Lordship gave the following decision:—

"This is a prosecution under the Food and Drugs Act, at the instance of the Sanitary Inspector for Glasgow, against Felix O'Neil, milk-dealer, Claythorn Street, and it charges that, on 9th February, O'Neil sold in his shop, to an ordinary Sanitary Inspector, twopence worth of sweet milk, which was not of the nature, substance, or quality demanded, in respect that it contained 27 per cent. of added water.

"The evidence showed that the Sanitary Inspector went into O'Neil's shop, on 9th February, and asked for twopence worth of sweet milk, which Mrs. O'Neil, in presence of her husband, supplied. The money was paid, and the Inspector informed Mrs. O'Neil that he had bought the milk to be analyzed by the Public Analyst, and he offered to divide it into three portions, and give her one, but Mr. O'Neil, on being referred to, declined the offer. The milk was then taken to Dr. John Clark, one of the Public Analysts, and analyzed by him. The report, which is produced, shows that the sample has been diluted with 27 per cent. of added water, and in his examination as a witness, he stated that this percentage is founded upon what is called the Somerset House Standard. Dr. Clark testified that, according to that standard, sweet milk contains of solids not fat, 8.6; of fat, 2.5; and of water, 88.9; and that the sample in question contained, of solids not fat, 6.27; of fat, 2.28; and of water, 91.45.

"The Somerset House Standard is considered a low standard, and has been arrived at by actual experiments in analyzing quantities of milk derived from different cows in different localities. Dr. Clark stated that, in his opinion, the percentage of water in the sample was not caused by the low feeding of cows, and that no sample of milk of genuine character has passed through his hands with such a low percentage of solids not fat, and that only in one case had the solids not fat come below 9 per cent., and in that case the percentage was 8.8.

"No evidence was led as to the character of the respondent's trade, or to account for the large percentage of water in the sample.

"Under the circumstances the question arises, Whether the respondent has violated the 6th section of the Food and Drugs Act of 1875? In the case of Davidson v. Macleod, 5 Pettie, p. 1, Lord Young stated that the intention of clause 6 is to protect purchasers of food and drugs from being cheated by having spurious articles passed off upon them, and that the fraudulent adulteration of goods, to increase their bulk or conceal their inferior quality by giving them a deceitful appearance, seems to have been prominently in the view of the Legislature in passing the At that time the statutory provisions were different from Act. what they are now, in respect that, according to the 1875 Act, the article supplied was to be not of the nature, substance, and quality demanded, whereas the amending Act of 1879, made these words disjunctive in place of cumulative, and caused the Statute to apply to articles which were not of the nature, substance, or quality demanded.

"After the passing of that amending Act, the case of Morton v. Green, 8 Pettie, page 36, was decided in the Court of Justiciary. It was a case very similar to the present, only that cream was the article purchased and not sweet milk. In that case the Court held that the sale of inferior, though pure, quality of Cream at a low price, was not an offence within the meaning of the Statute. In delivering his judgment, Lord Young stated that he had adhered to what he had said in the case of Davidson v. Macleod, as to the meaning of clause 6 of the 1875 Statute, and the Lord-Justice-Clerk concurred in the remarks of Lord Young on that subject, and stated that, in Davidson's case, he had pointed out that the Statutes prior to 1875 had referred only to the introduction into drugs and articles of food of foreign substances injurious to health, and his impression was that the main, if not the only object of the new provision, was to extend that prohibition to the admixture with food or drugs of foreign substances not injurious to health. Both Judges concurred in stating that there was nothing in the use of a term like "cream" or "sweet milk," and that the article demanded must be held to be the article meant by an ordinary purchaser to be obtained, and that neither science nor law has determined what percentage of fat must exist in cream or sweet milk, but has left it for decision in reference to the circumstances of each individual case. Giving effect to these dicta, I hold that the respondent has not violated the 6th section of the Statute, in respect-(1) That there is no evidence to prove fraudulent adulteration to conceal inferior quality; (2) that there is no introduction of a foreign substance, water being present in milk of the Somerset House Standard to the extent of 88.9; (3) that there is no authorised standard for ascertaining the necessary percentage of fat in order to justify a conviction; and (4) that no demand was made by the Sanitary Inspector for the Somerset House Standard, and that the article supplied by the respondent may, for aught that has been proved, have been of a quality and price suited to the wants and means of the respondent's customers."

Notice of appeal to the Court of Session was, with the sanction of the Health Committee, afterwards given, but the case has not yet come up for judgment.*

In our difficulties with these cases, Mr. George Anderson, M.P. for Glasgow, kindly agreed to aid the Local Authority in securing

* Since writing the above the following decision has been given in this case, and copied from the *Scottish Law Reporter:*—

"Friday, May 26.

" (Before Lords Young, Craighill, and Adam.)

"The question of law for the opinion of the Court was—"Whether, under the whole circumstances of the case, the respondent could have been held guilty of an offence within the meaning of the 6th section of the Statute founded on?"

"The 6th section of the Sale of Food and Drugs Act, 1875 (38 and 39 Vict., c. 63), is in these terms :— 'No person shall sell, to the prejudice of the purchaser, any article of food, or any drug, which is not of the nature, substance, and quality of the article demanded by such purchaser, under a penalty not exceeding twenty pounds.'

"The appellant argued—In the absence of evidence to the contrary, the Magistrate was bound to convict if the report of the Analyst showed there had been adulteration.—Vide *The Analyst*, Jan., 1882, p. 11, Harrison v. Richards; Pashlar v. Stevenitt, 27th May, 1876, 35 L.J.N.S., 862; Webb v. Knight, 13th June, 1877, 46 L.J. Mags. Cases, 264.

"No appearance was made for the respondent.

"At advising-

"Lord Young, in delivering the opinion of the Court, said—' The question in this case is whether, in the whole circumstances of the case, it is possible to convict the respondent of an offence within the meaning of the 6th section of the Statute of 1875? Now the whole circumstances of the case are, that another amended Act to place the executive in a better position for securing purity of milk to the citizens. But, after considerable correspondence with the Reporter, including proposed sections for a new Act by Dr. Clark, Mr. Anderson, ultimately finding that, as no similar objection had been taken to prosecutions for milk adulteration in England, an amendment would not likely be obtained for Scotland alone, recommended that, if the pending case failed, an Appeal should be made to the House of Lords. This course, however, could not be taken, as decisions of the Court of Justiciary in Scotland are final.

Under the head of "UNWHOLESOME FOOD" the following remit by the Health Committee, of date 20th March, 1882, may be noticed :--

"The Clerk submitted Report by the Special Sub-Committee "appointed by the Committee of Management of the Market "Trust to investigate and consider the communication from the "Police Authorities as to the Sale of Diseased Meat within the "City, dated 14th February last, and the Committee, after con-"sideration, agreed to recommend that it be remitted to Council-"lors Jackson, Laing, and Smith (Councillor Jackson, Convener), "along with the Medical Officer and Sanitary Inspector, to make "full inquiry into the means at present in use within the City, in-"cluding the public markets, for the prevention and detection "of the sale of diseased and unwholesome food, and whether "more stringent measures are required for that purpose, and to "what extent, and to report."

Following this the subjoined circular and queries, drawn up under the direction of Councillor Jackson, have been sent to the Town-Clerks of fifty-five towns in England, Ireland, and Scotland, and when answers to these are received a Draft Report, with recommendation for applying a proper check to the slaughter and

milk sold by the respondent had been watered to a certain extent, 27 per cent. of water having been added.

"' The question put to us is one of law, and we are of opinion that if a person so waters milk that, in the opinion of the Sheriff or other Magistrate trying the charge, it is not of the nature, substance, and quality of milk, he may lawfully, and if there is nothing to the contrary, ought to convict under the clause of the Statute in question.

"" Now, there is no more law than this in the case. It is the foundation of our opinion, that milk may cease to be of the nature, substance, and quality of milk for which it is sold, by the simple process of putting water into it. Whether it is so or not in any particular case, is a matter for the determination of the particular person trying the case.

""The Court is not asked to set aside the acquittal in this case, or to make a remit to the Sheriff, directing him to substitute a conviction for it. I may add that if, instead of an acquittal, there had been a conviction here, I should not, and I do not think either of my brethren would have been disposed to have entertained an Appeal against it." TO THE TOWN-CLERK OF

Sanitary Department, I Montrose Street, GLASGOW, 22nd April, 1882.

SIR,

I am directed to ask you to be so good as to furnish me with answers to the enclosed queries for the information and guidance of the Local Authority of this City in framing new Rules for the Regulation of Slaughter-Houses and Butcher Meat Markets under their jurisdiction, and particularly for the detection of Diseased Cattle brought to these places dead or alive.

Praying pardon for the trouble thus given you, and with assurance that we shall gladly serve you in a similar or any other way when required,

I am,

Yours truly,

KENNETH M. MACLEOD. Sanitary Inspector.

QUERIES.

A.—PUBLIC SLAUGHTER-HOUSES.

I. Have you a Public Slaughter-house?

2. Is slaughtering on Private Premises permitted in your district ?

3. If private slaughtering is permitted, where are the Premises generally situated ?

4. What mode is adopted to detect disease in such places?

5. Have you Inspectors whose principle duties are to prevent (a) Diseased Cattle entering for the purpose of being slaughtered, and (b) the carcases of Cattle suffering from disease when slaughtered from being taken from the Public Slaughter-house for purpose of sale and consumption as food?

6. What qualifications do your Inspectors require to possess as fitting them for those and any other duties?

 7. Are any of them Veterinary Surgeons ?
 8. What number of Inspectors do you employ at each Slaughter-house, and note of their respective Salaries?

9. What restrictions for health purposes do you place on the entry of Cattle at your Slaughter-house?

10. How do your Inspectors detect Diseased Animals, and prevent their entry to the Slaughter-house?

11. Do the Inspectors under the Contagious Diseases (Animals) Act cooperate with your Inspectors, or assist in the detection of disease, other than Contagious, in live Animals exposed for Sale for purposes of slaughter in your Public Markets?

12. Describe the method of inspection carried out by your Inspectors, especially with regard to examination and judging of the soundness of carcases of Slaughtered Animals?

13. State or describe any condition of carcase or intestines which are held as satisfactory evidence that such carcase is unfit for human food?

14. Describe the arrangements used in slaughtering Cattle for use of Members of the Jewish persuasion, and their method and standard of Inspection?

15. What Statutory Powers do you possess to enforce all the foregoing ?

16. Add any other particulars regarding the management of your Slaughterhouses, and detection of unsound Meat you may think of service to us?

QUERIES.

B.--PUBLIC DEAD-MEAT MARKETS,

I. Have you any Wholesale Dead-meat Public Market?

2. Must all Dead Meat for retail sale within your jurisdiction pass through such Market?

3. What restrictions are placed upon the entry for sale within your boundaries of Dead Meat conveyed from country by road or train?

4. State qualifications of Inspectors as fitting for these and other duties in a Dead-meat Market?

5. Are any of them Veterinary Surgeons?

6. What number of Inspectors do you employ at each Market, and note of their respective Salaries?

7. State how your Inspectors detect and prevent the entry into your Deadmeat Market of unsound Meat?

8. Describe method of detecting unsound Butcher Meat when killed beyond your jurisdiction ?

9. Add any other particulars regarding management and detection which you may think of service to us?

10. How do you dispose of the Meat condemned as unfit for human food in both cases—i.e., Slaughter-houses and Dead-meat Markets?

11. What Statutory Powers do you possess to enforce all the foregoing?

12. What defects in existing General Legislation do you find allow opportunities of frustrating your efforts to enforce sound Sanitary, &c., Regulations in both the foregoing Departments?

13. We shall be obliged by your sending Copies of Bye laws or Regulations, of both Institutions, Instructions to Inspectors, &c.

The Town Council, acting as Local Authority under "THE CONTAGIOUS DISEASES (ANIMALS) ACT, 1878," deputed this Department in the year following to carry out the provisions thereof, which are embodied in the Privy Council's Order, entitled "The Dairies, Cow-sheds, and Milkshops Order of July, 1879," and the Regulations drawn up thereon by the Lord Provost, Magistrates, and Council for "prescribing and regulating the cleansing of the same," which are as follow:—

THE CONTAGIOUS DISEASES (ANIMALS) ACT, 1878.

THE DAIRIES, COW-SHEDS, AND MILK SHOPS ORDER OF JULY, 1879.

THE LORD PROVOST, MAGISTRATES, AND COUNCIL OF THE CITY OF GLASGOW, ACTING AS THE LOCAL AUTHORITY UNDER THE CONTAGIOUS DISEASES (ANIMALS) ACT, 1878, DO HEREBY, UNDER THE POWERS CONFERRED ON THEM BY ARTICLE 7 OF THE DAIRIES, COW-SHEDS, AND MILK SHOPS ORDER OF JULY, 1879, MAKE THE FOLLOWING

REGULATIONS FOR PRESCRIBING AND REGULATING THE CLEANSING OF DAIRIES AND COW-SHEDS IN THE OCCUPATION OF PERSONS FOLLOWING THE TRADE OF COW-KEEPERS OR DAIRYMEN, AND THE

CLEANSING OF MILK STORES, MILK SHOPS, AND MILK VESSELS used for containing Milk for Sale by such Persons, VIZ.:--

"DAIRIES, MILK STORES, AND MILK SHOPS.

"1. The walls of all dairies, milk stores, and milk shops shall be kept at all times thoroughly clean and in good order, and shall be lime-washed or sizecoloured every three months. Paint or varnish shall be washed at least every month, and renewed every two years.

"2. All floors, shelves, counters, &c., shall be washed daily, and kept thoroughly clean at all times. No washing, sweeping, or dusting shall be carried out while milk is exposed in open vessels.

"3. No milk shop, milk store, dairy, place or premises, where milk is kept, stored, or exposed for sale, shall be used as a dwelling or sleeping apartment, or be in direct communication with a dwelling-room or sleeping apartment, nor shall be used for any purpose whatever other than that for which it is registered.

"4. Clothes shall not be washed or mangled where milk is stored or exposed for sale, nor in any apartment communicating therewith.

"MILK VESSELS.

"5. All barrels, butts, cans, and other vessels of whatever kind, used to convey, store, distribute, or for any purpose to contain milk for sale, including bungs, bung-cloths, lids, &c., shall be scalded with boiling water, or steam under pressure, immediately after use, and shall thereafter be dripped so that no water shall be left therein.

"6. All barrels, butts, or other vessels used for the conveyance of milk from a distance shall be in like manner scalded and cleaned before being returned.

"7. No boiler, tank, steam chest, or other receptacle used for scalding or washing such vessels shall be employed for any other purpose.

"J. D. MARWICK,

" Town-Clerk and Clerk to the Local Authority.

" CITY CHAMBERS, "GLASGOW, 2nd December, 1880."

COW-SHEDS.

The attention of cow-keepers is required to the rules and regulations made by the Magistrates' Committee of "The Board of Police of Glasgow," in virtue of the powers conferred by "The Cattle-sheds in Burghs (Scotland) Act, 1866," and "The Glasgow Police Act, 1866," and especially to Rule 9 thereof, viz. :—

"9. Every cattle-shed, cow-house, or byre shall be swept and thoroughly cleansed at least twice every day, and the walls thereof, outside and inside, shall be lime-washed twice in each year, viz., on the first week of the months of June and November."

The attention of cow-keepers, dairymen, and purveyors of milk is also hereby required to the following clauses of "The Dairies, Cow-sheds, and Milk Shops Order of July, 1879, issued by the Lords of Her Majesty's Most Honourable Privy Council," any infringement of which, or of a regulation under it, renders the party offending liable in a penalty not exceeding $\pounds 20$, viz. :—

"REVOCATION OF FORMER ORDERS.

"4. 'The Dairies, Cow-sheds, and Milk Shops Order of 1879,' and 'The Dairies, Cow-sheds, and Milk Shops Amendment Order of 1879,' are hereby from the making of this Order revoked; but nothing herein shall invalidate or make unlawful anything done under those Orders, or either of them, before the making of this Order, or interfere with the institution or prosecution of any proceeding in respect of any offence committed against, or any penalty incurred under, those Orders, or either of them.

"CONSTRUCTION AND WATER SUPPLY OF NEW DAIRIES AND COW-SHEDS.

"5.—(1) It shall not be lawful for any person following the trade of cowkeeper or dairyman to begin to occupy as a dairy or cow-shed any building not so occupied at the making of this Order, unless and until he first makes provision, to the reasonable satisfaction of the Local Authority, for the lighting and the ventilation, including air-space, and the cleansing, drainage, and water supply of the same, while occupied as a dairy or cow-shed.

"(2) It shall not be lawful for any such person to begin so to occupy any such building without first giving one month's notice in writing to the Local Authority of his intention so to do.

"SANITARY STATE OF ALL DAIRIES AND COW-SHEDS.

"6. It shall not be lawful for any person following the trade of cow-keeper or dairyman to occupy as a dairy or cow-shed any building, whether so occupied at the making of this Order or not, if and as long as the lighting, and the ventilation, including air-space, and the cleansing, drainage, and water supply thereof are not such as are necessary or proper—

- " (a) for the health and good condition of the cattle therein; and
- "(b) for the cleanliness of milk vessels used therein for containing milk for sale; and
- "(c) for the protection of the milk therein against infection and contamination.

"CLEANSING OF DAIRIES, COW-SHEDS, MILK STORES, MILK SHOPS, AND MILK VESSELS.

"7. A Local Authority may, from time to time, make regulations for prescribing and regulating the cleansing of dairies and cow-sheds in the occupation of persons following the trade of cow-keepers or dairymen, and the cleansing of milk stores, milk shops, and milk vessels used for containing milk for sale by such persons.

"CONTAMINATION OF MILK.

"8. If at any time disease exists among the cattle in a dairy or cow-shed, or other building or place, the milk of a diseased cow therein—

- "(a) shall not be mixed with other milk; and
- "(b) shall not be sold or used for human food; and
- "(c) shall not be sold or used for food of swine, or other animals, unless and until it has been boiled.

"9. It shall not be lawful for any person following the trade of cow-keeper, or dairyman, or purveyor of milk, or being the occupier of a milk store or milk shop—

- "(1) To allow any person suffering from a dangerous infectious disorder, or having recently been in contact with a person so suffering, to milk cows or to handle vessels used for containing milk for sale, or in any way to take part or assist in the conduct of the trade or business of the cow-keeper or dairyman, purveyor of milk, or occupier of a milk-store or milk-shop, as far as regards the production, distribution, or storage of milk; or
- "(2) If himself so suffering, or having recently been in contact as aforesaid, to milk cows, or handle vessels used for containing milk for sale or in any way take part in the conduct of his trade or business, as far as regards the production, distribution, or storage of milk—

until in each case all danger therefrom of the communication of infection to the milk or of its contamination has ceased.

"IO. It shall not be lawful for any person following the trade of cowkeeper, or dairyman, or purveyor of milk, or being the occupier of a milk store or milk shop, to use a milk store or milk shop in his occupation, or permit the same to be used, for any purpose incompatible with the proper preservation of the cleanliness of the milk store or milk shop, and of the milk vessels and milk therein, or in any manner likely to cause contamination of the milk therein.

"KEEPING OF SWINE.

"11. It shall not be lawful for any person following the trade of cowkeeper, or dairyman, or purveyor of milk, to keep any swine in any cow-shed or other building used by him for keeping cows, or in any milk store or other place used by him for keeping milk for sale.

"REGISTRATION OF DAIRYMEN AND OTHERS.

"12.—(1) Every Local Authority shall keep a register of persons from time to time carrying on in the district of the Local Authority the trade of cowkeepers, dairymen, or purveyors of milk, and shall from time to time revise and correct the register.

"(2) The Local Authority shall, from time to time, give public notice by advertisement in a newspaper circulating in their district, and, if they think fit, by placards, hand-bills, or otherwise, of registration being required, and of the mode of registration.

"(3) It shall not be lawful for any person to carry on in the district of any Local Authority the trade of cow-keeper, dairyman, or purveyor of milk, unless he is registered as such therein.

"(4) A person who carries on the trade of cow-keeper or dairyman for the purpose only of making and selling butter or cheese, or both, and who does not carry on the trade of purveyor of milk, shall not, for the purposes of registration, be deemed to be a person carrying on the trade of cow-keeper or dairyman, and need not be registered.

"(5) A person who sells milk of his own cows in small quantities to his workmen or neighbours, for their accommodation, shall not, for the purposes of registration, be deemed, by reason only of such selling, to be a person carrying on the trade of cow-keeper, dairyman, or purveyor of milk, and need not, by reason thereof, be registered.

"ACTS OF LOCAL AUTHORITIES.

"13.—(1) All orders and regulations made by a Local Authority under The Dairies, Cow-sheds, and Milk Shops Order of 1879,' and in force at the making of this Order shall, as far as the same are not varied by or inconsistent with this Order, remain in force until altered or revoked by the Local Authority.

"(2) Forms of registers and other forms which have been, before the making of this Order, prepared for use by a Local Authority under 'The Dairies, Cow-sheds, and Milk Shops Order of 1879,' may be used, as far as they are suitable, for the purposes of this Order.

"SCOTLAND.

14.—"Nothing in this Order shall be deemed to interfere with the operation of 'The Cattle-sheds in Burghs (Scotland) Act, 1866.'

"C. L. PEEL.

'AT THE COUNCIL CHAMBER, WHITEHALL, "the 9th day of July, 1879," Two officers were specially appointed to see this important Order, and the foregoing Milk Shops' Regulations, properly carried out. Under these our aim has been to secure a milk supply for the City, as far as possible, through a class of milkdealers who confine their trade chiefly to the sale of dairy produce, and neither keep articles in their shops that would, by close contact, contaminate the milk, nor use the adjoining apartments in a way that would be deemed incompatible with the proper maintenance of thorough cleanliness; and it is but fair to say that, after almost unsurmountable difficulties in the procedure of enforcement from the imperfect powers placed at our disposal, we have succeeded in securing improvements in respect of ventilation, drainage, and cleansing vastly superior to those which existed in many of these places prior to our supervision under this Order.

There are three FEMALE LAVATORIES—one in the Corporation Building, Jail Square, one at the south end of Stockwell Bridge, and one at the north end of Jamaica Street Bridge.

The income from these places, shown in the Tables, was derived from a charge of one halfpenny for each visitor. The small sum which this annually amounts to, and the apparent non-appreciation of them by the public, raised the question in Committee, Whether it would not be better to abolish the charge altogether, and in future give females free entry, as is allowed in those erected for males?

This could be done, and the accommodation increased, by putting two additional closets in each Lavatory, in that part now used by the keeper as a sale shop, and thereafter placing them in charge of one keeper, whose duty it would be to see them kept clean, and opened and locked up at fixed hours night and morning.

It was suggested that the Lavatory on the south side of Stockwell Bridge would be more used if placed on the north side of the Bridge, which is near the Fish Market. But as this place is closed in consequence of the keeper's resignation, it was resolved, before opening it again, to remit consideration of the whole question to a Committee for report. As this has not been yet concluded, the resolution thereof must stand over for insertion in next Report.

The accommodation and board given in the RECEPTION HOUSE, 39 Weaver Street, to families removed from crowded localities until their dwellings undergo a course of disinfection, in consequence of some member suffering from fever having been removed to Hospital, continues to be greatly appreciated, and is a most valuable adjunct to the prevention of diseases action of the Epidemic branch of the Department.

The MEDICAL VACCINATOR attends at the Hall, No. 5 Montrose Street, every Tuesday and Friday between twelve and one o'clock, to apply vaccination to all comers, young and old, free of charge. In addition to this, vaccination is given at the residence of whoever may ask it, in the neighbourhood where cases of small-pox necessitate the Department's supervision.

Under the Provisions contained in "An Act for the better PROTECTION of INFANT LIFE," entrusted to this Department, the most anxious and careful efforts have from time to time been made to discover contraventions of this Act in every district of the City, but happily without the detection of one case which would have warranted our interference.

Before closing, the Reporter may, in a word, notice the additional duties imposed on the Department in arranging work and relief for the UNEMPLOYED of the City in the years 1878-79 and 1879-80, caused by the commercial depression which then proved so disastrous to every interest in the city. Full reports of the proceedings were published and circulated in each of these years, and as some copies are still in stock, and may be had on application at the Office, no further reference to the details need be made here.

With the view of increasing the number of PUBLIC DRINKING-FOUNTAINS, and rearranging Street and Court Urinals, a survey of the City was made, and returns drawn up, which are still under consideration of a Sub-Committee.

Under powers contained in Acts of Parliament obtained by the North British Railway Company, for the purpose of securing space for sidings to their College Station, and by the congregation of Wellington Street United Presbyterian Church, who contemplate removal, to enable them to expose their church for sale, the remains of all the bodies buried in the Old Blackfriars Burial-ground, High Street, in connection with the first, and in the crypt of the second, were exhumed and removed to other cemeteries, under the superintendence of Dr. Russell, and at the immediate sight of sanitary officers specially told off to perform that unpleasant duty, leaving neither monumental nor other trace that these places, formerly held sacred by so many, were ever used as "cities of the dead"mournfully teaching by the march of improvement, as has been often still more sadly taught by the ravages of time, "the futility of that pride which hopes still to exact homage in its ashes, and to live in an inscription."

The present staff consist of one medical officer of health, one sanitary inspector, one indoor inspector, five district inspectors, twenty-eight ordinary inspectors, six clerks, one smoke tester, two office boys, one female cleaner, one supernumerary—all in the Office, No. 1 Montrose Street. One medical vaccinator, for free public vaccination.

Two food inspectors, and three public analysts for analyzing samples, public and private.

One matron and two servants in the Reception-house.

Two keepers of Female Lavatories.

One foreman, three clothes collectors, three fumigators, three van drivers, ten washerwomen, and an average of four whitewashers under contract in the Disinfecting Branch.

Making a total of eighty-two employés in the whole Department. The Reporter has only to add that a steady increase of requests by the general public for advice and assistance in sanitary troubles continue to be made, both at the indoor branch and by letter, and that every member of the staff, in their desire to give satisfaction, display unwearied zeal in the discharge of the difficult, and oftentimes dangerous, duties with which they are entrusted.

I remain,

My Lord and Gentlemen,

Your most obedient Servant,

KENNETH M. MACLEOD, Sanitary Inspector.

SANITARY CHAMBERS, GLASGOW, 26th June, 1882.

TABULATED DIVISIONS.

SANITARY INSPECTOR'S REPORT,

For Five Years ending 30th April, 1882.

I. NUISANCES.	1878.	1879.	1880.	1881.	1882.	TOTAL.
Number inspected, recorded, and	0	-0 - 1	-			-6 0
noted to authors,	19,825	18,426		19,177	19,286	
Number removed,	17,176	17,559	17,921	17,725	18,730	89,111
New Drains constructed,	120	115	104	- 149	154	642
Old Drains repaired, &c.,.	249	371	907	1,114	1,414	
Do. cleansed,	1,528	1,390	1,078	762	1,004	
Courts paved,	93	95	86	51	28	353
Do., paving repaired,	622	548	782	591		3,479
Privies constructed,	29	33	18	19	27	126
Ashpits do.,	48	48	52	50	23	221
Water-closets constructed, Urinals constructed,	64 9	7	17 1	24 6		131 21
Privy and Ashpits combined,	843	5 823	1,010	1,046	1,297	5,019
Ashpits abolished,	19	4	II	1,040 I	2	37
Rhones, &c., repaired,	265	318	408	243	326	1,560
Jawboxes fitted up, &c.,	212	220	247	290	137	1,106
Soil and Water Pipes repaired, .	1,566	2,360	2,412	3,416	2,730	12,484
Common Stairs repaired,	299	291	329	307	321	1,547 3,015
Roofs, &c., of Houses repaired, . Flues altered, &c.,	663 119	638 141	576 113	588 91	550 137	601
New Water Supply, direct from	119	.4.		9.	-57	
Main, arranged,	174	94	196	247	34	745
Soil-pipes ventilated,	913	557	272	341	183	2,266
Ventilation of Staircases, Dwell-			0		10.00	
ings, &c., obtained,	95	130	85	96	102	508
Light obtained for Staircases,		8	8	9	II	45
Dwellings, &c.,	9	0	0	9		43
Dwellings &c	4,544	3,748	3,622	4,007	4,615	20,536
Dwellings, &c.,	-5544	577				
Dwellings, &c.,	2,249	1,871				
Underground Houses shut up, .	26	24	28	13	42	
Undersized do.,	II	3	9	I	7	31
Houses otherwise unfit for Habi-	17	12	2	3	5	41
tation shut up,	17	13	3	5	3	1
continued or improved,	4	3	I	I		9
Stables, Pigstyes, or other Pre-	-				-	
mises discontinued or improved,	. 2	2	5	13	I	23
Accumulations of Offensive Mat-	· · · ·			1.000	TOIS	5,283
ter, Refuse, &c., removed,	762	932	1,448	1,093	1,048	5,203
Other Nuisances removed chiefly	1,382	2,600	2,249	2,048	2,464	10,743
by repair,	1,302	2,000	2,249	2)040		
proved,	193	105	132	81	97	608
Cases withdrawn for various						
reasons,	47	62	64	52	44	269
		17 550	17.021	17 705	18,730	89,111
	17,176	17,559	17,921	17,725	10,750	
A REAL PROPERTY AND A REAL						

in an international	1878.	1879.	1880.	1881.	1882.	TOTAL.
Reported to Master of Works- Cases of Street Defects, Dan-	100.64	1.54153		(Incom)	paine	H.
gerous Buildings, &c.,	98	121	160	160	80	619
Prosecutions in Dean of Guild						62
Court,	13	33	9	3	4	and a second
of Health Committee, Prosecutions in Police Courts be-	18	17	11	4	6	56
fore the Magistrates,					41	207
	84	83		37	51	325
Of these—Removed, Do., in Court at end of each	67	70	67	33	48	285
year, but since removed,	17	13	3	4	3	40
	84	83	70	37	51	325
Notices to Mr. Gale-Waste of Water,	470	857	684	309	421	2,741
Notices to Mr. Young-Full Ashpits,	442	321	176	27	14	980
	912	1,178		336		
					435	3,721
II. LODGING-HOUSES.						PER A
Day Inspections						
Of Houses Let in Lodgings, &c						
Measured, Numbered, and Re- gistered,	242	324	176	106	141	989
Reinspected, including former Registrations,	8,279	7,948	7,290	3,463	3,204	30, 184
Common Lodging-houses						
Reinspected,	3,425	1,931	3,243	3,948	4,060	16,607
of Bye-laws,		9	19	13	11	52
of Bye-laws (see foot-note), .		• 8	15	5	IO	38
Night Inspections.			- invitia			And the Part
Number of Ticketed Dwellings inspected,	36,689	37,967	39,984	38,554	38,434	191,628
Found overcrowded Once,	1,222 261	1,012	923	1,207	1,612	5,976
Do. Thrice,	60	184 48	109 34	194 45	243 57	991 244
Do. Four or more times, Lodgers found in do.,	31 1,084	19 842	5 758	13 833	20 643	88 4,160
Carry forward,	51,293	50,292	52,556			250,957

Light part was re-	1878.	1879.	1880.	1881.	1882.	TOTAL.
Brought forward, Cases pending at date of last	51,293	50,292	52,556	48,381	48,435	250,957
Report,	37	45	19	20	16	
Magistrate,	444 1,027	200 871	169 764	327 1,052	170 1,563	1,310 5,277
Non-apprehensions,	95 45	218 19	137 20	84 16	198 17	732
Contraventions of Bye-law 10, as to mixing of sexes, Keepers fined for do.,	13	4	13	11	I	42
Non-apprehensions of Keepers, .	5	4	11 2	47	I '	28 14
13 16 18 1 T	52,967	51,653	53,691	49,902	50,401	258,360
III. INFECTIOUS DISEASES.		- 4				
Number of Cases Registered, . Of which were, Males,	6,290 3,028	8,590 4,141	6,775 3,360	8,974 4,385	7,995	38,624
Do., Females,	3,262	4,449	3,415	4,589	3,972	19,687
and the second second	6,290	8,590	6,775	8,974	7,995	38,624
Under 8 years of age, 8 and under 20 years,	4,696 947	6,747 1,225	4,930 1,276	5,956 2,001	5,822 1,475	28,151 6,924
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	477 132	485	439 99	805 171	560 121	2,766 636
60 and upwards,	38	20	31	41	17	38,624
Disinfection.	6,290	8,590	6,775	-8,974	7,995	
Number of Apartments used by Patients fumigated,	5,764	6,752	4,547	8,946	7,809	33,818
Apartments whitewashed,	5,631	6,789	4,076	5,346	4,645	26,487
Ceilings do., Clothing, Articles washed, Straw and Chaff for Destroyed	151,173	216,469	208,836	348,404	309,443	1,234,325
Beds supplied,	4,277	6,801 22	4,036		2,386	
Carpets disinfected and beat,	*			1,831	1,105	2,936
House-to-House Visitations.						
Number of Houses visited, Do. Cases discovered,	268,262 3,969	283,033 5,742	304,070 5,165	5,786	4,650	25,312
Viz.—Fevers, Typhus and Enteric,				1,273		
Small-pox,	3,298	4,914	4,267		4,146	
Chaomica, Fri Fri	3,969					
				-		

IV. FEMALE VISITA- TIONS. <		_					
Number of First Visits, 11,695 24,319 5,464 2,549 44,02 Houses and Inmates found Clean, 10,155 22,497 5,023 2,281 39,95 Number of Revisits, 13,002 13,856 21,653 11,849 4,801 65,16 Houses and Inmates found Clean, 7,163 6,661 10,537 5,692 2,449 32,500 Do. Partially Improved, 5,382 6,160 9,408 5,531 2,071 28,613 Do. found Dirty, 457 1,035 1,648 626 281 4,04 26,004 27,712 43,306 23,698 9,602 130,323 V. BAKEHOUSES. Number Inspected, including formerly Registered, 881 166 111 63 61 1,283 Number Limewashed or Oil Painted, by order of Sanitary 881 166 111 63 61 1,283 V. ADULTERATION OF FOOD, &c. 925 192 115 71 73 1,376 Number of Samples procured for Analysis, 84		1878.	1879.	1880.	1881.	1882.	TOTAL.
Houses and Inmates found Clean, Do. IO, 155 $22,497$ $5,023$ $2,281$ $39,951$ Number of Revisits, I,540 I,822 441 268 $4,07$ Number of Revisits, I3,002 I3,856 $21,653$ II,849 $4,801$ $65,16$ Houses and Inmates found Clean, Do. $7,163$ $6,661$ $10,537$ $5,692$ $2,449$ $32,500$ Do. found Dirty, 457 $I,035$ $I,648$ 626 281 $4,041$ Do. found Dirty, 457 $I,035$ $I,648$ 626 281 $4,041$ $26,004$ $27,712$ $43,306$ $23,698$ $9,602$ $130,322$ V. BAKEHOUSES. S81 166 111 63 61 $1,282$ Number Inspected, including formerly Registered, S81 166 111 63 61 $1,282$ Number Linewashed or Oil Painted, by order of Sanitary Inspector, having been found Dirty, 84 18 59 67 37 265 VI.	TIONS.				diam'r		
Number of Revisits, $13,002$ $13,856$ $21,653$ $11,849$ $4,801$ $65,16$ Houses and Inmates found Clean, Do. Partially Improved, Do. found Dirty, 457 $5,382$ $6,160$ $9,468$ $5,531$ $2,071$ $28,612$ Do. found Dirty, Do. found Dirty, Do. found Dirty, 457 $1,035$ $1,648$ 626 281 $4,042$ $26,004$ $27,712$ $43,306$ $23,698$ $9,602$ $130,322$ V. BAKEHOUSES. Number Inspected, including formerly Registered, 881 166 111 63 61 $1,282$ Number Limewashed or Oil Painted, by order of Sanitary Inspector, having been found Dirty,	Houses and Inmates found Clean,	10,155	22,497	5,023	2,281		44,027 39,956 4,071
26,004 27,712 43,306 23,698 9,602 130,322 V. BAKEHOUSES. Number Inspected, including formerly Registered, 881 166 111 63 61 1,282 Number Linewashed or Oil Painted, by order of Sanitary Inspector, having been found Dirty,	Houses and Inmates found Clean, Do. Partially Improved,	7,163 5,382	6,661 6,160	10,537 9,468	5,692 5,531	2,449 2,071	65,161 32,502 28,612
NumberInspected, including formerly Registered, \dots 88116611163611,282NumberLimewashed or Oil Painted, by order of Sanitary Inspector, having been found Dirty, $\dots \dots \dots$	Don Tourin Dirty,						130,322
formerly Registered,88116611163611,282Number Limewashed or Oil Painted, by order of Sanitary Inspector, having been found Dirty,	V. BAKEHOUSES.						
Inspector, having been found Dirty,	formerly Registered, Number Limewashed or Oil	881	166	111	63	61	1,282
925 192 115 71 73 1,376 VI. ADULTERATION OF FOOD, &c. Image: State	Inspector, having been found	44	26	4	8	12	94
VI. ADULTERATION OF FOOD, &c.8418596737265Number of Samples procured for Analysis,	the state of the state of the state						
OF FOOD, &c.Number of Samples procured for Analysis,		925	192	115	71	73	1,376
Analysis, \cdot <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Analyst, .<	Analysis,				1		265 142
		30	5	38	34	16	123
Do. Convictions, 5 23 24 I 53	Do. Convictions, Do. Non-Convictions, .	5		23	24	I	70 53 17
<u> </u>		14		60	54	12	140
VII. UNWHOLESOME FOOD.				inver			
Number of Inspections, 6,919 3,048 2,734 3,981 4,303 20,985 Number of Seizures, which con- tained the following quantities, all destroyed with consent of	Number of Seizures, which con- tained the following quantities, all destroyed with consent of	6,919	3,048	2,734	3,981	4,303	20,985
Owners, \cdot \cdot \cdot \cdot 19 20 \dots 74 136 249 Viz.—Beef, \cdot \cdot \cdot 19 205 $9,538\frac{1}{2}$ 372 $1,837$ $14,582$	Owners,		Constraints of the				249 14,582 ¹ / ₂ 200
	Carry forward,	9,568	3,279	12,2721	4,495	6,402	36,0161

unt ar steller	1878.	1879.	1880.	1881.	1882.	TOTAL.
Brought forward,	9,568	3,279	12,2721/2	4,495	6,402	36,016 <u>1</u>
Lamb, lbs., Pork, ,, Veal, ,,	 460		1,788	2,371	4,700	 9,319
Fruit,	 189 40	1,308 2,118	1,308 2,241 	3,945 2,481 	11,964 4,266 112	18,525 11,295 152
Eggs,	···· ···	3,100 	···· ····	 366 	900 130 400	4,000 496 400
Prosecutions under Police Act, . Convictions obtained, Amount of Fines (see foot-note).	2 2	3 1	2		I	8 6
	10,261	9,809	17,6131	13,658	28,876	80,2171/2
VIII. INDOOR SERVICE.						
Number of Applications for Hospital Accommodation, Granted Interment, under powers	1,029	1,438	1,596	1,897	1,840	7,800
contained in the Public Health Act,	411	468	469	507	448	2,303
Sheriff,	15	27	24	II	12	89
Sit. The site	1,455	1,933	2,089	2,415	2,300	10,192
IX. DAIRIES, COW- SHEDS, AND MILK SHOPS.						
Number of Applications Regis- tered to 30th April each year, Number residing beyond City			1,630	437	352	2,419
Boundaries,			77	94	17	188
rangements,			261	128	232	621
ments by orders,			186	75	98	359
compliance,			205 I	140 2	5	350 14
Number who gave up the Trade or removed, Number now on Register, under			901	126	275	1,302
supervision, within the City Bounds,	· · · ·		652	869	929	
Lopan inthe terms Hereits			3,913	1,871	1,919	5,253

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X. THREE FEMALE	1878.	1879.	1880.	1881.	1882.	TOTAL.				
LAVATORIES. Number of Persons who used them,										
them,		14,700	14,294	15,471	15,349	59,874				
XI. RECEPTION- HOUSE.										
Number of Inmates admitted from infected Dwellings and boarded fourteen days—					-					
Adults,	108 88	131 12J	161 147	195 144	206 177	801 677				
	196	252	308	339	383	1,478				
XII. VACCINATIONS.										
Number Vaccinated in Office, . Do. at their own	1,366	1,174	1,524	1,595	1,482	7,141				
Dwellings,	674	- 89	5	116	21	905				
	2,040	1,263	1,529	1,711	1,503	8,046				
NOTE.—Fines imposed for Contraventions of Lodging-house Rules, . £34 5 0 Do. Contraventions of Food Adulteration Acts, . 160 0 0 Do. Unwholesome Food,										
Amount drawn for Entranc		es to Fer	nale Lav	atories,		6 15 0 4 14 8 <u>1</u>				
	Total,				. £35	I 0 81				

Other Fines imposed under the Public Health and the Contagious Diseases (Animals) Acts, paid to the Treasurer through the Court, not entered here.

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