had been informed by the Town Clerk of Maldon that the compensation for back sewers was very small. In some cases 10s., in others 5s., and in two instances £5 and £3 respectively woro paid, but in the great majority of cases there was no payment made. Mr. Bailey Denton had evidently not had time to read the paper, or he would have seen that no immediate abolition of traps was proposed, and none at all unless investigation showed that they might safely be omitted. The real point of the paper was the improvement of sewer ventilation, the abolition of traps being incidental, subject of course, to scientific investigation. Ho (Mr. Grantham) had not said that Sir John Hawkshaw's tall shaft in the Brighton outfall sewer had effected any good in the town. He had quoted Sir Joseph Bazalgette's report on the drainage of Brighton to show that he had found, by experiment, that the shaft did induce a current of air which was perceptible two miles up the sewer, and he pointed out that the current was partly due to the absence of any important opening in the sewer for that distance. Mr. Denton does not controvert this point. Seeing that about 300 traps and air inlets, and many ventilating shafts had been inserted in the new connections at Maldon, he did not follow Mr. Denton when he said that sewer gas would enter the dwellings there as it did at Brighton. It could not possibly do so. With regard to the 6-inch pipes complained of by Mr. Denton, there were only three instances where these were adopted, and the places where these were laid could hardly be dignified by the name of streets, but were rather short narrow alleys with rapid falls, and he could not help thinking that Mr. Denton would have also used them under the same circumstances. There was a tendency too in the present day to diminish the size of pipes where there are few houses and the supply of water is small, as at Maldon, in order to ensure a greater concentration and scour in the invert of the pipe, although he thought that this theory was sometimes carried too far. As to the lampholes, animadverted upon by Mr. Denton, they were required by the Local Government Board, and in the lengths which were mostly very short, to overcome bends in the streets; he considered the saving of expense was amply justified, while the results in actual working have proved perfectly satisfactory. The difference in cost between a lamphole and a manhole was nearly £11, and Maldon would have been much more unhappy at having to pay £350 in addition to what it had already expended. He quite agreed with Mr. Rogers Field in objecting to the closing of manhole covers or street gratings, and he felt indebted to Mr. Field for reminding the meeting that his object was rather to discuss and investigate the subject of the improvement of sewer ventilation than to advocate offhand any radical remedy. But he still was inclined to think that, subject always to careful investigation, it would be desirable to amalgamate the two shafts, viz., the one for the house drain and the other for the main sewer, and as improvements both in the construction of house drains and of main sewers increased, the trap in the house drain might be dispensed with, although the amalgamation might yet be effected without doing away with the trap.

LECTURE TO SANITARY OFFICERS.

On "Ventilation and Measurement of Cubic Space,"

By SIR DOUGLAS GALTON, K.C.B., D.C.L., LL.D., F.R.S.

THE Public Health Act and Model Bye-Laws place certain Act and Model Bye-laws impose duties upon the Sanitary Inspector in valation to call a certain duties duties upon the Sanitary Inspector in relation to cubic space upon the Sanitary Inspector in and to ventilation, and it is therefore necessary that he should respect to cubic space and ventilation. questions are based; and the object of this lecture is to explain 2. Object of the to you these principles.

Cubic space is the amount of air space which is allotted to call laws which should govern the exercise of say, assuming that those is an amount of air space which is allotted to the exercise of the exercise say, assuming that there is an empty room 10 feet long, 8 feet these duties.
3. Definition of. wide, and 9 feet high, the cubic contents of that room will be and method of calculating cubic 720 cubic feet.

If you place one individual in the room, he will have 720 room. cubic feet of air space. If you place two individuals, each will have half of 720, or 360 cubic feet; if three individuals in it, each will have 240 cubic feet of air space, and so on.

If in that room, instead of being simply rectangular, there are recesses, you must add the contents of the recesses to the

Thus, if there is a projecting window, 4 feet wide, and 3 feet deep, and 7 feet high, you will add 84 cubic feet; and the air space afforded would be 804 cubic feet to one individual, 402 cubic feet to two individuals, and so on.

On the other hand, if there are projections such as a chimney breast, you must take that out in calculating the cubic space.

Thus if there is a chimney breast 4 feet wide, projecting 2 feet 6 inches into a room of the general dimensions abovementioned, you must deduct the 4 feet \times 2 feet 6 inches \times 9 = 90 feet; thus the room would then have only 630 cubic feet.

You must, moreover, make a further reduction if there is much solid furniture in the room. In practice, however, it is scarcely necessary to make allowance for light articles; nor where there is not a material quantity of furniture.

Let us consider what are the reasons, on the ground of 4. conditions health, why a certain air space or cubic space is wanted in an which render space necessary occupied room.

If you are in an open space out of doors, fresh air is perpetually flowing round you.

It has been estimated that the air of the atmosphere moves

or air space in a

at a rate of rarely less than 4 feet per second, and the average movement is from 8 to 10 feet per second.

In a room it is very different. In an occupied room you must more or less breathe air which has been already breathed.

Even out of doors the effect of congregating large numbers of persons together may prevent the free access of fresh air to those in the middle of a crowd.

As an instance of this it has happened that on a still day persons in the middle of a crowd have fainted for want of air.

We all know that in a room the assembly of a large number of people soon becomes unbearable. The reason of this is, as you all well know, because the respiration of the individuals in a room, their perspiration, the burning of candles, and all such matters, vitiate the air of rooms at a certain rate.

I will here briefly explain what is the nature of this vitiation. Pure air consists of a certain amount of oxygen and a certain

amount of nitrogen.

The oxygen supports life, but if we breathed it pure it would

burn us away.

The nitrogen is an inert gas which dilutes the oxygen, and prevents it from being injurious to us in the process of breathing.

Every human being, in order to live, must be constantly breathing: in the act of breathing he takes in oxygen, and throws out from his lungs carbonic acid (CO_2) ; but he also throws off organic matter. This organic matter consists of epithelium, and molecular and cellular matter from the lungs; and is more or less in a condition ready to putrefy.

In addition to this matter from the lungs, portions of epithelium are constantly being given off from the skin. In hospitals you sometimes find pus cells in the air, which are given

off from suppurating surfaces.

In the act of breathing there is also a large amount of watery vapour given off chiefly from the lungs, but also from the skin. Of this you may easily satisfy yourself whenever you occupy a confined space.

For instance, in a railway carriage, with the windows and ventilators closed, the glass panes will soon be coated with moisture, which is the condensation from the breathed air which

has been saturated with this watery vapour.

The amount of watery vapour varies; but taking the amount given off by an individual from the skin and lungs together, it is enough to saturate about 90 cubic feet of air per hour, at a temperature of 63° Fahr.

This watery vapour is full of the organic matter which I told you just now is thrown off from the body, this organic matter being in a condition very ready to putrefy.

It is chiefly from the presence of this, in air which has been breathed, that injury arises.

If you shut up a person or an animal in a confined space without any change of air, they could not live for any length

of time.

You all know the instance of the Black Hole at Calcutta. In the year 1756, 146 individuals were confined in a small cell, known as the Black Hole of Calcutta. This cell was 18 feet long by 14 feet wide, by 10 feet high, being so small that the last person of the 146 had to be crushed in upon the rest with violence as the door was closed and locked. The only means of ventilation were two small holes in the door. In the morning 123 corpses were taken out, and 23 beings, who could scarcely be said to be alive.

Of course the larger the space, the longer would people live; but if there is no change of air, whatever the size of the room or space, the occupants would begin by suffering from head-ache or other forms of discomfort in proportion to the progressive vitiation of the air, and would all die after a certain

time.

Thus the impurity of air caused by breathing is partly due 6. Measure of to the organic matter thrown off the body, and partly to the breathed air. carbonic acid which is dislodged from the lungs.

In most cases of bad ventilation the carbonic acid is not the

chief cause of injury.

You may hold your head over a beer vat, where a very large amount of carbonic acid is being disengaged, without injury.

It would require the air to be vitiated with 5 per cent, of

carbonic acid ($\dot{\mathbf{C}}$ \mathbf{O}_2) to destroy life.

The reason why breathed air, which may contain a much smaller amount of CO₂, produces such deleterious effects, is because the breathed air contains also putrefactive organic matter. It is this organic matter which is especially deleterious.

But the quantity of CO_2 in breathed air affords, under ordinary circumstances, a fair test of the quantity of organic matter present; and it used to be found less difficult to ascertain by test the amount of carbonic acid present in the air

than the quantity of organic matter.

Carbonic acid has generally therefore been accepted as a measure of the impurity present in breathed air. It must be borne in mind that there is always a proportion of carbonic acid (CO_2) present in air; for instance, in air out of doors in the open country, there are from 3 to 4 parts of carbonic acid (CO_2) in 10,000 parts of air; and even this amount will sometimes be increased in a wood, or in proximity to a flock of sheep. In towns you will find sometimes a much larger quantity. Dr.

5. Impurity of sir caused by the operations of life and breathing. 7. Quantity of

air required to

Angus Smith found as much as 6.8 parts per 10,000 parts of air in confined streets in a fog in Mauchester; and Dr. Russell has found as much as 9, 11, and even 14 parts of CO2 in 10,000 volumes of air, in a dense fog in London. It is the excess of carbonic acid found in confined spaces over that found in pure country air that is the measure of impurity; 4 parts of CO2 in 10,000 parts of air is assumed as an average for air out of doors; when the air of an occupied room contains 6 parts per 10,000, the sense of smell enables the impurity to be detected, hence 6 parts in 10,000 have been allowed as the permissible measure of impurity in the air of occupied rooms. The presence of those minute organisms which have been recently brought into prominent notice by the increased attention given to the study of bacteriology, is also to some extent an index of impurity in air; but it is too soon as yet to lay down any fixed rules in this matter.

In order to counteract the effect of breathing, it is necessary continually to replace the air of an occupied room by fresh air, but it is of course impossible to keep the air of an inhabited

room in as pure a condition as the outside air.

It is unnecessary to enter here into the details of the theoair required to retical calculations of the quantity of air necessary to be introduced into a room in order to maintain the air at a

sufficient degree of purity, or rather of impurity.

The results of these calculations are that, according to theory, it would require 3,000 cubic feet of fresh air to be supplied to each occupant of a room per hour to keep the atmosphere in a uniform condition. That condition is not the same as pure air out-doors. It is something less pure; and, as I told you above, it has been generally assumed as a standard of admissible impurity that the carbonic acid gas in the air of an occupied room, may amount to 2 parts per 10,000 over normal or outside air; that is to say that the air of the occupied room may contain 6 parts per 10,000 in all, without being deleterious.

If you place an individual in a room in which there is no change of air, the time required for the air to arrive at this state of impurity will depend on the size of the room; that is

to say, on the cubic space in the room.

The following table shows the time required to effect this:-One man in 10.000 cubic feet, 3 hours 20 minutes.

; llitill l	II TOPOOO	Choic root,	_	•••		
	5,000	,,	1	hour		"
"	1,000	,,			20	"
"	600	,,			12	**
"	200				4	11
17	50))			1	11
"	30	"			36	seconds.
	<i>0</i> 0	99			00.	

Hence the possibility of people occupying continuously a given space depends upon the change of the air.

If you introduce fresh air into the room, and remove the 8. Effects of difvitinted air, the same quantity of air would have to be introduced forest proportions of air space in the case of the large room as in the case of the small room, on supply of air. but in the large room the change of the whole air of the room would occupy more than 3 hours; that is to say, would take place almost imperceptibly; whereas, if you shut a person up in a coffin, provided you passed continually fresh air through the collin, so as to force out the air which had been breathed, a person could live perfectly well; but this would be a very uncomfortable arrangement, because he would live in a perpetual current of air.

On these grounds the cubic space, or the air space, which a room affords, is a very important element in considering the number of occupants which can conveniently and safely be

allotted to a room, having regard to their comfort.

In barrack-rooms, it has been decided that 600 cubic feet per man should be afforded; that means a space of 10 feet long by 6 feet wide and 10 feet high. These are living rooms as well as sleeping rooms.

In workhouse dormitories, 300 cubic feet per occupant has been considered sufficient: that means a space of 4 feet by 7

feet 6 inches, by 10 feet high.

But although cubic space has been taken as the measure of 9. Floor space as contrasted with accommodation which a room will afford, it is perhaps a some-cubic space. what unfortunate term, for if you put a certain number of individuals to sleep in a room, their being able to do so with either comfort or a due regard to health would rather depend upon the distance at which you place their beds apart than upon the cubic space they occupy.

Thus in a room, 15 feet high, affording a cubic space of 300 cubic feet per bed, each bed would be limited to 20 feet of floor space, or 6 feet by 3 feet 4 inches. But in a room affording the same amount of cubic space, viz., 300 cubic feet, but 10 feet high only, there would be 30 feet of floor space to each bed, or 6 feet by 5 feet.

Therefore, whilst a lofty room would leave the surface space very crowded, a lower room, having the same amount of cubic space, would afford access to the sides of the beds.

You will thus see that so far as comfort is concerned the floor space or surface space is a matter of far more importance than cubic space in the convenient occupation of a room.

But besides the question of convenience, there are other very important reasons why, in placing a number of persons in

one room, it is essential that they should not be placed too close together.

Each individual is a centre from which the deleterious emanations proceed. Therefore, the further apart you can place the occupants, the better opportunity do you afford for the air breathed by the various persons to be diffused.

If you have a number of people sleeping in a room, and if you desire to prevent them from suffering from the pollution of air as much as possible, you should have as large an interval as

can be arranged between the different beds.

Therefore if you were building a room to accommodate a certain number of persons, and if you wished to provide a certain amount of cubic space, it would be better to keep the room as low as is compatible with efficient ventilation, rather than to have a very lofty room. And for this reason, in fixing the number of occupants in a room, your attention should be directed rather to the floor space than to the cubic space.

When I say that the room should be as low as possible, I mean as low as is consistent with the due circulation of air,

and with the conditions necessary for renewal of air.

I have endeavoured to explain to you how the air of a room is rendered impure by the presence of persons in it. I have also told you that in order to counteract this, it is necessary to remove the breathed air and to replace it by fresh air.

I have also told you that theoretical results have pointed to 3,000 cubic feet of air per occupant as the quantity of air which should be supplied to keep the air in a satisfactory condition.

In practical experiments made in barrack rooms, it was found that an inflow through the special apertures for admitting fresh air and removing foul air equal to 1,200 cubic feet per occupant of air removed and replaced per hour, was sufficient with 600 cubic feet of space to keep the impurity of the air down to the standard before mentioned.

In hospital wards, where the emanations from the sick cause different conditions to prevail, an inflow of 2,000 cubic feet per hour, with a cubic space much enlarged, dependent on the

condition of the sick, was found desirable.

You will see that this is less than that given above by theoretical calculation. This need not be set down to errors in calculation or in theory, because the conditions under which the air flows in and out of a room are so varied.

The walls and ceiling themselves allow of a considerable

passage of air. All building materials are porous.

If you look at any ceiling, you will see that an old ceiling is often blackened where the plaster has nothing over it to check the passage of air, and that where the wooden joists come and

the air has not passed so freely, it is less black.* If you break the plaster, you will find that its blackness has arisen from its having acted like a filter, and retained the smoky particles while the air passed through.

Moreover the porosity of the walls materially influences the moisture, for a porous wall may absorb much moisture; and on this account rooms with walls of polished impervious material require much more air to pass through them than rooms with porous walls, because, in the absence of sufficient ventilation, when the walls are colder than the air, moisture condenses on the walls, and runs down them.

Where no special arrangements are made for changing the air, ill-fitting doors and windows allow of the passage of a

considerable quantity of air.

In a temperate climate, where the changes of temperature of the outer air are rapid and considerable, these means of producing the outflow from, and the inflow of air into, a confined space are in constant operation. A sleeping room is very warm at bed-time; a rapid fall of temperature outside occurs, and at once a considerable movement of air takes place through every available opening.

The majority of occupiers of sleeping rooms in England close their windows at night; they often block up the chimney by a register or otherwise to prevent the blacks falling. They have no special inlet or outlet for changing the air, and if it were not for the continual insensible change of air which passes through the walls, doors, and window chinks, &c., the occupants would be asphyxiated. A well-built house unprovided with special means for the inflow of fresh air is a real source of danger.

In order to afford the necessary change of air in a convenient 11. Efficient ventual manner, you must have a certain cubic space; and the great be imposseptible object of efficient ventilation is to enable change of air to take place without its being unpleasant from the draughts which it

This change of air is governed by certain natural laws.

Air consists of molecules, which are very loosely attached to air.

each other, and small increases of temperature, or slight diminutions of pressure, allow these molecules or particles to separate: and thus a cubic foot of warmed air weighs less than a cubic foot of cold air.

For instance, at a temperature of 32° Fahrenheit, a cubic

10. Effect of materials, con struction, and form of buildings on supply of sir.

^{*} Where a ceiling is of brick with iron joists other conditions prevail, which I shall not enter into here, and the position of the iron joist is often marked by a black line.

foot of cold dry air, at the level of the sea, would weigh about 567 grains. At a temperature of 100° Fahr., a cubic foot of air would only weigh 497 grains; and at a temperature of zero, that is 32° below freezing-point, it would weigh 606 grains.

It follows from this that air, when it is warmed, expands and ascends; and air, when it is cooled, contracts and falls.

It also follows that as the warm air ascends, the colder air

around rushes in to fill its place.

Everywhere this heating and cooling of the air is going on; the sun's rays warm the objects on which they impinge, these objects in their turn warm the air: the vicinity of a shaded surface cools the air: and thus both in turn cause movements in the currents of air.

In this room, as air is warmed by your bodies, it ascends; it comes against the glass of the windows or skylight, cools, and falls down. You say that you feel a draught from the window; that is not necessarily air coming in from the window; it may

simply be the cooled air falling on you. It is on this law of the dilatation of air that all the movegovernment of the atmosphere depends, from the winds and hurricanes ments of air due ment of the atmosphere depends, from the winds and hurricanes to the ventilation of our houses, except where we propel air by

fans or other mechanical appliances.

The law which regulates this movement of the air in a confined space, when the temperature is higher than that of the outside air, depends upon the following considerations:-

1. Upon the difference of temperature of the air inside the confined space, as compared with that outside.

2. Upon the area of the aperture through which the air passes.

3. Upon the height of the column of ascending air.

If A B represent the height of a column of air of the outside temperature t, and A C the height of a column of the same quantity of air expanded by the warmer temperature t', then the velocity at which the warmer air ascends will be that which would be acquired by a body falling from C to B. The theoretical formula due to this is:-

 $V = \sqrt{BC \times 2} g$. And where V = velocity in feet per second.

H = height of shaft.

t' = temperature in shaft.

t =temperature out of doors.

a = co-efficient of dilatation of air, which for 1° Fahrenheit = .00203.

The theoretical equation becomes $V = 8.204 \sqrt{Ha(t'-t)}$. But the actual movement of air in a flue is very different.

It is diminished by the resistance afforded by the chimney or flue in which the column of ascending air is contained. This resistance increases directly with the length, and inversely with the diameter or area, of the flue; and it also increases with the square of the velocity of the air currents. The resistance is, moreover, much influenced by the material forming the sides of the flue; with a sooty flue the velocity, with equal temperatures, has been found to be one-half that of a clean fluc. The velocity is, moreover, diminished by any impediment to the ingress of the fresh air required to supply the place of that which flows out, and therefore an efficient system of ventilation requires that the extraction of air should be accompanied by arrangements for the supply of fresh air.

For these reasons it is preferable, in estimating the amount of air removed for purposes of ventilation from buildings already constructed, to measure the actual volume of the air in the flues or air passages; that is to say, to cause it to pass along a channel, the size and area of which are known, and then to measure the velocity with which the air passes through

this channel.

The multiple of the area into the velocity in a given time

gives the volume which passes through in that time.

There are various ways of measuring the velocity. It may 14. Methods of measuring the be done by puffs of vapour of turpentine; by little balloons movement of tilled with hydrogen, and weighted to be of the exact specific air. gravity of air. A very convenient instrument is the anemometer, of which I show a specimen. The vanes are turned by the air, and the number of the revolutions, apportioned to the movement of the air, has to be ascertained in the first place by direct experiment, that is, by forcing a known bulk of air through a channel of a given size. That is to say, you provide a box or a cylinder of a certain size with a piston, and in connection with this box you place a tube of a known area and fitted to the size of the anemometer. You place the anemometer in the tube, and you note its reading. You then cause the piston to descend in a given time, and thus force the air contained in the box through the tube. You then note the reading of the anemometer; and thus ascertain the number of revolutions which coincide with the volume of air which has passed through the tube out of the box.

This method requires great care and attention, and the absence of all cross currents in the place where the experiment is made.

Another method for very roughly ascertaining the value of the revolutions of the anemometer is to draw the anemometer through the air at a given rate in a given time, and note the revolutions; but this is liable to many errors.

In heated flues and chimneys of manufactories Fletcher's anemometer is a very convenient form for measuring the speed of the air and gases.

The instrument consists of two parts. The first part consists of two metal tubes of about $\frac{a}{10}$ of an inch internal diameter, open throughout, and of any length; secondly, of a manometer,

or pressure gauge.

Of these tubes the end of one is straight, while that of the other is bent to a right angle. When in use these tubes are placed parallel to each other, so that their ends are exposed to the current of air to be measured. They lie at right angles to the current, which thus crosses the open end of the one, and blows into the bent end of the other.

By this means a partial vacuum is established in the straight tube, whilst the pressure of the current forces the air into the bent tube. A differential manometer attached to the outer ends of the tubes shows the excess of pressure in the bent tube

over that in the straight one.

The manometer used is a simple U tube set vertically, fitted with microscopes and vernier scales, and containing other.

The difference of level of the surfaces of the ether in tho two limbs can be measured to $\frac{1}{1000}$ of an inch. This difference of level between the columns of ether becomes a measure of the speed of the current passing the ends of the anemometer tubes; the law which governs the speed is expressed generally by the formula $v = \sqrt{p} \times 28.55$. The corrections to be made for small variations of barometric pressure and temperature are unimportant.

This is a very convenient form of anemometer, because the pressure-tubes may be of any length or diameter, and may be connected with the manometer by india-rubber tubing of any length. Therefore the readings may be observed in any

convenient place at a distance from the flues.

The pressure-tube should project into the air current to the extent of one-sixth part of its diameter, to measure the average

velocity.

It is desirable, after observing the height of the other in the tube then to reverse the connection with the manometer, and to take a second reading; if the smaller reading be deducted from the greater, twice the height of the column supported by the difference of pressure is obtained, and the error of observation is halved. But in this, as in the anemometer with vanes, there is a difficulty in accurately observing low velocities, i.e., under one foot per second.

It is worth noting that a sheet of light tracing paper moved through the air at 2 feet per second takes up an angle of 45°,

and affords a ready means of measuring that velocity; and for smaller velocities the angle assumed by the flame of a candle affords a fairly accurate index, according to the following table:—

Velocity of flow of Feet per second.	air.	Angle of inclination of flame of candle with horizon.
1.6		30°
1.0		40°
0.75		509
0.50		(:Oo
0.40		(t#,0 ·

Artificial methods in use for moving air may be classed as 15. Mechanical appliances for moving air. follows:-

1st. Movement by the application of heat to extract air, thus causing a vacuum which is filled up by fresh air rushing in to fill its place. Of this method the open fireplace is a familiar

2nd. The use of pumps to draw out or to force in air.

3rd. The use of fans either to extract the air from or to

force it into the space to be ventilated.

You will see from the formula for calculating the velocity of air in a shaft or flue that the velocity will vary either with the height of the shaft or with the temperature of the shaft.

Hence a tall shaft with a small increase of temperature of air 16. Direct application of heat to may produce as high a velocity as a short shaft in which the movement of air.

temperature is high.

In this latter case, it would be necessary to consume a large amount of fuel to increase the temperature of the air which passes up the shaft.

Therefore the economy with which the law of dilatation of air can be applied in practice depends on the height of the

shaft available.

If you require the extraction of air to go on continuously, you will find that a lofty chimney shaft will be the cheapest and most effectual way of securing your object. It is simple and permanent. It requires comparatively little repair, and no skilled labor to look after it.

Moreover, whilst a chimney flue acts by means of the dilatation of air, it also acts in another and occasionally very efficient manner. Whenever wind blows over the top of a shaft, it draws with it the air in the shaft, and causes an extraction; and as movement is almost always taking place in the atmosphere out of doors, you may almost always rely upon a certain degree of extraction of air from a house or a room by means of shafts carried up to above the roof, which is independent of the temperature of the air in the shaft.

But if you only want ventilation to be put in operation from plication of heat time to time, as in a meeting hall, it may often be found that when you take into consideration the first cost, the extraction of air by a properly constructed fan worked by a gas or other heat engine, would in many cases be more economical than the fluo extraction; in all cases the warming of the air which takes the place of that removed must be taken into account.

There are various methods by which the extraction of movement of air may be effected by shafts and flues on a large scale; but simple forms of inlers and outlets we are here chiefly concerned with the application of these laws to ventilation on a small scale, that is, to the ventilation of separate rooms rather than of large buildings. All that I have told you respecting the movement of air governs the ventilation of your rooms where you have sash windows and fire-places; and the simplest way of securing an efficient change of air in a room without having resort to mechanical appliances, such as fans, or the direct application of heat, is to utilise the movement of the atmosphere, to which I have already alluded.

> You have only to make an opening at the upper part of a room, out of which the warmed air can pass, and an opening at a lower level through which fresh air can flow in, to obtain a change of air.

> For instance, if the top sash of your window is lowered and the bottom sash raised, the warmed air passes out of the room at the top, and the cooler outer air flows in below.

> Your window can be arranged to form a very convenient inlet for fresh air, without causing a perceptible draught, by cutting a slit in the lower bar of the upper sash of a window, so as to leave a clear space of about a quarter of an inch along its whole length, through which the fresh air will be drawn in an upward direction.

> Ventilators which act similarly to direct the current of air towards the ceiling are sometimes introduced into the upper panes of window-frames, such as hopper ventilators, or Moore's louvred panes; but these are all makeshifts: and although the windows, when they can be kept open, are the best means for the periodical renewal of the whole air in a room, every room should have special inlets and outlets for air, arranged so as to be independent of the windows.

> If you have a room to ventilate which has no fireplace, and which is without openings in the lower part, and has no rooms above it, such for instance as a chapel or meeting house, or sometimes a stable, you can do so by means of a Watson's ventilator. This ventilator consists simply of a tube carried up to above the roof, divided into two parts by a vertical diaphragm

down the middle, one part being carried up rather higher than the other.

This diaphragm will cause a double current to be set up in the tube; an upward current of air will be established in the side of the tube which is carried up above the other, and a downward current will prevail in the other compartment of the tube, and the movement of air will generally be unaccompanied by unpleasant draughts.

There are now in general use several forms of simple ventilators, such as Watson's and Sheringham's, which all act more or less efficiently.

The most efficient, and at the same time most simple, method 19. Effect of for removing the air of a room without having recourse to fans shafts without heat. or other mechanical appliances is to carry up shafts from the room to above the roof so as to utilise the movements of the atmosphere, to which I have already alluded, to assist the movement which would naturally take place, partly from the warmer air of the room rising up through the shaft, and partly from the movement of the atmosphere outside, which, as I have already mentioned, will draw air up the tube.

Thus, if the atmosphere should be without perceptible movement in cold weather, when the temperature indoors is maintained for comfort above that out of doors, the difference of temperature will cause an upward movement in the shaft. In hot weather, if the shaft is colder than the outer air, a down current may probably ensue; but if in hot weather there should be little or no movement in the shaft, this occurs at a time when the windows can be kept open, and the air be renewed by this means.

The velocity due to the action of the wind which prevails in a shaft is modified by friction. This friction varies inversely with the area of the shaft, and in the case of small tubes it forms a very perceptible element of retardation.

Experiments made with tubes 3 inches in diameter tend to show that the velocity obtained in the tube was about $\frac{2}{5}$ of that of the wind; larger diameters on the other hand produce better results.

These results were obtained in a place supplied as far as possible with fresh air to replace that removed, in a manner as far as possible independent of the movement of the atmosphere, and with the top of the tube freely exposed on all sides.

These shafts will very rarely be found to be without action, for the atmosphere is always more or less in movement; and whenever there are currents passing over the top of the shaft an upward current is produced in the shaft.

Inventors frequently maintain that this action of the flue or

shaft is influenced by special forms of cowls. No doubt you must have a top or cover to the shaft to prevent rain coming down; but numerous experiments which have been made by a Committee of The Sanitary Institute tend to show that, with equally sized apertures at the top, an open tube would act best, and that the principal condition in the shape of the top which influences the velocity, under similar conditions of force of wind, is the area of the aperture as compared with the area of the upcast flue.

VENTILATION AND MEASUREMENT OF CUBIC SPACE,

That is to say, an increase in the area of the aperture of the top, properly regulated as to shape, may, under certain circumstances, produce an increased velocity in the upcast flue; and where a cowl appears to show an increased velocity in an upcast flue, it results from the enlarged area afforded by the

cowl as compared with the area of the shaft.

In certain positions where surrounding buildings affect the current, there are forms of cowls which appear to protect the flue from down-draught. But in the majority of cases, it would seem as if intricate forms of cowls serve to diminish the natural effect of the wind; whilst they act in chimneys to impede the escape of the smoke.

These shafts for removing the air must be supplemented by

inlets to admit fresh air.

If you have a fire place with a fire in the grate, the heat of the fire will draw a large volume of air up the chimney, which is of itself a most efficient extracting flue.

Hence every room which possesses an open fire place is

furnished with a very powerful engine of ventilation.

But the efficiency of the fire place depends on mechanical force, that is to say, upon the heat developed by the fuel consumed.

The open fire place, by means of the heat which it generates, acts just like a fan or a pump to force or draw the air out of the room. So long as the fire is lighted it is continually at work.

The way in which an ordinary open fire place acts to create circulation of air in a room with closed doors and windows is as follows. The air is drawn along the floor towards the grate; it is then warmed by the heat which pervades all objects near the fire, and part is carried up the chimney with the smoke, whilst the remainder, partly in consequence of the warmth which it has acquired from the fire, and partly owing to the impetus created in its movement towards the fire, flows upwards towards the ceiling near the chimney breast.

It passes along the ceiling, and as it cools in its progress towards the opposite wall, descends to the floor, to be again drawn towards the fire place.

The open fire place thus presents special advantages for securing efficient ventilation by means of the circulation of air which it creates. Up to a certain point it makes the room in which it is in use independent of other means of extraction of air. For instance, a fire place with an ordinary sized flue and a good fire, will extract somewhat above 30,000 cubic feet of air per hour from a room. If the room is crowded the fire will not suffice for ventilation; and, moreover, the degree of vitiation of the air tends to make the fire dull and diminish its efficiency.

The air thus extracted must be drawn into the room from somewhere, and unless arrangements be made for supplying the room with warmed fresh air, cold air finds its way into the room through the special inlets, if any are provided; if not, through the chinks of the windows and doors, or wherever it can get in most easily. There is this objection to the open fire, namely, that the large volume of fresh air required to supply that drawn up the chinney cannot always be warmed with sufficient rapidity by contact with the walls and furniture only; the temperature in different parts of the room is therefore frequently very unequal, and the occupants are subjected to draughts; and if there are two fireplaces in the same room unprovided with special means for the admission of fresh air, one of which is not lighted, the air is often drawn down the vacant chimney.

It is therefore desirable in cold weather to replace some part at least of the air drawn up the chimney by air partially warmed. This can be effected in various ways, either by a service of hot-water pipes carried into all the rooms, to coils placed in front of the fresh air inlets, so as to warm the fresh air as it enters the room; or by bringing warmed air into the room by flues from a central heating apparatus.

The advantage of this latter arrangement is that the air can be brought to the heating apparatus from a pure source, and that it can, if desired, be filtered through jute cloth so as to free it to a great extent from dust.

Where large numbers of persons are to be provided for, especially for instance in schools, some mechanical means of supplying air is absolutely necessary; but in ordinary houses the simplest plan of providing warmed air is to utilise some of the waste heat which, in the case of an ordinary open fire-place, passes away unused up the chimney.

The ventilating fire-place, which has been generally adopted in barracks, was designed with the object of obviating the above-named objections to the common fire-place, and to utilise the spare heat, as well as to provide such adequate means of ventilating the soldiers' rooms in cold weather when the windows are shut, as would not be liable to be deranged.

20. Effect of open fires on ventilation of

Fresh air is admitted to a chamber formed at the back of the grate, where it is moderately warmed by a large heating surface, and then carried by a flue, adjacent to the chimney flue, to the upper part of the room, where it flows into the currents which already exist in the room.

Barrack rooms have fireplaces and windows, but these are not sufficient as ventilating appliances in rooms where there are

many occupants.

The ventilation is therefore supplemented by Sheringbam's valves near the ceiling, and by shafts carried from the ceiling to above the roof.

These shafts have generally been made of wood or brick; for if made of zinc, exposed to the outer air, that part of the action which is due to the excess of the warmth of the air of the room over that of the outer air would be retarded in cold weather.

The methods of ventilation which are adequate for barrack rooms would not suffice for places where large numbers are congregated, as, for instance, in large schoolrooms. In these it would be preferable to adopt either a method of forcing in fresh air by means of a fan, or of extracting the air by means of a powerful shaft, and replacing the air thus extracted by fresh air. In a properly devised building the latter would be the most economical arrangement.

With proper arrangements for the supply of fresh air, the purity of the air would be the same in either case. But in our large board schools you may take it as an axiom that you cannot secure adequate ventilation without the application of some mechanical system; and that, in order to obtain the greatest economy in the application of a mechanical system, it is essential that it be made a part of the original design.

This question is, however, somewhat beyond the limits of my

present lecture. There are, however, many points to be considered in connection with this question of simple natural ventilation.

The action of wind, whilst it tends to exhaust the air 22. Conditions in through the tube, is, at the same time, acting on all other openings in the building either to exhaust or to force in air. Hence gusts of wind will sometimes cause a reverse action in rangements for ventilation. the tube, in consequence of some other opening acting temporarily as a means of extraction. The position of rooms in a building materially affects the question of ventilation.

If you have a house with a central staircase from top to bottom, and with a skylight at the top, this will act as a shaft, and being large it is more powerful than smaller shafts, and it will tend to draw air into itself from the rooms, and often counteracts the effect of the chimneys, especially when the

appliances.

chimneys are cold, or when their size is greater than required for the removal of the air provided for their supply.

In the latter case, a double current, one up, one down, and both sluggish, is sometimes established in the chimney.

A smoky chimney may, therefore, often be cured by being reduced in area, so as to reduce the volume of air required to fill it, or by an adequate provision of fresh air to the room in which it is placed, or by a supply of air in an adjacent hall or staircase.

The effect of a high wind is to diminish the air pressure in a house when all windows are closed on the side of the outer-air pressure: hence, although some of the chimneys may have an accelerated draught due to the velocity of the wind, the action of the air pressure may be to cause others of the chimneys to smoke. The remedy for this would be to open slightly the windows on the side of the air pressure, so as to allow the pressure to act equally through the house.

It will frequently happen that the open fires in the rooms 23. Conditions which require to be fed with fresh air, together with the warm regulate the ob air shaft formed by a central staircase, will combine to draw air for ventilain the air from every available opening. They will draw up ting purposes. the air from the basement; they will draw it, if they can, from the water-closets and sink-pipes, unless the water-closets and sinks are in projecting buildings cut off by lobbies ventilated from the open air.

For these reasons it is of importance not only to shut off the staircase from the basement, but to provide fresh air to the staircase; and when open fires are used, to supply each room in which there is on open fire-place with its own supply of fresh air. If the temperature of the room is to be kept up to a pleasant heat, this must to some extent be warmed air.

The fresh air should be obtained from places where there are no adjacent sources of impurity; especially not from the vicinity of ash-pits, manure heaps, gully gratings, or other sources of foul air. The inlets from the outer air should be at least two feet from the ground, and the surface near should be paved and sloped away from the inlet, so as to carry off wet rapidly.

It has been estimated that the impurities of town air are very much diminished at 200 yards height, and are not found above 600 yards in height. A London fog will rarely be perceptible at a height of above 100 yards; consequently, to bring pure air into a large town, the simplest way would be to draw it down from a height by means of a high shaft or tower. The Houses of Parliament could be supplied with very much purer air than is now provided for them by bringing the air from the top of the Victoria Tower.

The temperature at which air should be delivered in a room depends somewhat on the temperature of the outer air. With a temperature out of doors of 86°, air delivered at 60° would be felt as too cold. Similarly, in the Arctic expedition, with an out-of-doors temperature — 40° below zero, a temperature of + 40° was felt to be hot.

In this climate the temperature indoors should be maintained at from 50° to 64°, and the warmed inflowing air should not vary much from this temperature; in any case it would not be

desirable to exceed from 68° to 70°.

The hygrometric condition of the air must also be considered. If the air is too dry, it may, after it has been warmed, be passed over vessels containing water, to allow it to take up additional moisture—but the natural dampness of an English climate renders this less necessary here than it may be on the continent of Europe, or in Canada and North America where the air is often very dry.

It has not unfrequently happened that complaints of the oppressiveness of dry air artificially warmed have been caused rather by the insufficiency of the supply of warmed air than

from its dry condition.

The channels for the admission of air should as a rule be

short, direct, and accessible.

Long channels collect dirt, and form a refuge for insects. But if it is necessary to make them long they should be easily accessible for cleaning.

In this single lecture I have only had time to give you some

general suggestions upon this important subject.

I would, in conclusion, say that it should be accepted as an axiom that by the best ventilating arrangements we can only obtain in our rooms air of a certain standard of impurity: and that ventilating arrangements are only makeshifts to assist in remedying the evils to which we are exposed from the necessity of obtaining an atmosphere in our houses different in temperature from that of the outer air.

To obtain that temperature we sacrifice purity of air; therefore, whenever the outer temperature permits it, windows should be widely opened, so as to replace the air of the room by fresh

air as often as possible.

EXAMINATIONS IN SANITARY SCIENCE FOR LOCAL SURVEYORS AND INSPECTORS OF NUISANCES.

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BENJAMIN ARTHUR WHITELEGGE, M.D., B.SC., D.P.H., M.O.H.

The great and increasing importance of the duties devolving upon Local Surveyors and Inspectors of Nuisances, in connection with the various Acts relating to Public Health, Drainage and Water Supply, the Sale of Food and Drugs, &c., led the Council of the Sanitary Institute of Great Britain in 1877 to establish Voluntary Examinations, to appoint a Board of Examiners, and to grant Certificates of Competency in Sanitary knowledge.

The Sanitary Institute, in which the older body was incorporated in 1888,

is continuing this important work.

The Examinations are arranged in two grades, and are intended to enable Local Surveyors and Inspectors of Nuisances, or persons desirous of becoming such, or of obtaining the Certificate of the Institute, to prove their competency in the subjects of Examination. A register of successful Candidates is kept at the Offices of the Institute, and a copy will be forwarded to Local Boards and Sanitary Authorities on application. Many Boards and Corporations require Candidates, when making applications for appointments, to produce a certificate of this kind.

Up to Dec., 1891, 40 Examinations had been held; 1493 Candidates had been examined, 181 as Local Surveyors, and 1312 as Inspectors of Nuisances; of these 903 passed the Examinations and received Certificates,

78 as Local Surveyors, and 825 as Inspectors.

Examinations in Practical Sanitation and Building, so far as it relates to Sanitary Construction, are held in conjunction with the Worshipful Com-

pany of Carpenters.

In order to make the Examinations for Inspectors more accessible to persons residing in the country, the Council have arranged to hold periodical Examinations in the following centres, in addition to the Examinations held in London, provided that at least 20 Candidates send in

24. Conclusion.

applications for Examination: -Newcastle-on-Tyne; Liverpool, Leeds or Manchester: Birmingham or Bristol.

These Examinations in the Provinces will be carried out in the same way as the Examinations in London, and similar Certificates will be granted. It is hoped that later on arrangements may be made for holding them also

in Scotland and in Ireland.

Each Examination occupies a portion of two days. On the first day the Examination of Surveyors occupies six hours—viz., usually from 11 a.m. till 2 p.m., and from 3 till 6 p.m., and consists of written papers only. Inspectors of Nuisances have three hours' written Examination on the first day-viz., usually from 11 a.m. to 2 p.m. On the second day the Examination, for each class, usually commences at 11 a.m., and is viva voce, with one or more questions to be answered in writing, if deemed necessary.

Every Candidate is required to furnish the Board of Examiners with satisfactory testimonials as to age and personal character, and to give two weeks' notice previous to presenting himself for Examination. The fee for Examination must be paid to the Secretary; 10s. 6d. on making application, and the remainder at least one week before the day of Examination. On the receipt of the fee, a ticket will be forwarded admitting to the

No one under 21 years of age is admitted to the Examinations.

A Certificate of Competency, signed by the Examiners and bearing the Seal of the Institute, is granted to each successful Candidate; but it must be distinctly understood that no Certificate will be granted to any Candidate unless he can write legibly, spell correctly, and possesses a fair knowledge of arithmetic, so that he may be able to prepare a report on any subject connected with his duties, creditable to himself and to the Authority employing him.

The fees payable for the Examination are as follows:-

As Surveyors, £5 5s.

As Inspectors of Nuisances, £3 3s.

But when the Examinations are held in Provincial Towns, £1 1s. extra will be charged to the Candidate in order to cover the expenses incurred in holding an examination out of London.

Unsuccessful Candidates are allowed to present themselves at any other Examination within twelve months on payment of half fees.

The dates of the Examinations for 1892, are as follows:—

For Surveyors—

London-Friday and Saturday, June 17th and 18th.

For Inspectors of Nuisances-

Bristol-Friday and Saturday, March 4th and 5th. April 8th and 9th.

Derby—Thursday and Friday, April 28th and 29th. Wakefield-Friday and Saturday, June 10th and 11th.

Newcastle- " June 24th and 25th. Cardiff— July 8th and 9th.

December 2nd and 3rd. London— December 16th and 17th. Liverpool-,,

The forms to be filled up before the Examination, by Candidates and by those persons recommending them, will be supplied on application to the Secretary.

FOR LOCAL SURVEYORS.
(1.) LAWS AND BYE-LAWS—A thorough knowledge of the Acts affecting Sanitary Authorities, as far as they relate to the duties of Local Surveyors; also, of the Model By-Laws issued by the Local Government Board.

SEWIRAGE AND DRAINAGE—The Sanitary arrangements of houses, including internal drainage, the construction of water-closets, privies, and dry-closets, the removal and disposal of refuse; the Sanitary defects of Builder's and Plumber's work; the Sanitary principles of Sewerage and Drainage and their application in the preparation of schemes for, and in the construction of, Sewerage works; the flushing and ventilation of sewers, and the treatment and disposal of sewerage ment and disposal of sewage.

WATER SUPPLY OF TOWNS AND HOUSES—The sources of water, methods of collecting, purification (filtration, softening, &c.), and distribution. The Sanitary principles of Water Supply, and their application in the preparation of schemes for, and in the construction of, Water-works; the various ways in which water is likely to become polluted, and the best means of ensuring

(4.) STRUCTURAL—Regulation of Cellar Dwellings and Lodging Houses, and of Baths and Wash-houses; General principles of Ventilation and their practical application; the amount of air and space necessary for men and cattle; the means of supplying air, and of ensuring its purity.

(5.) HIGHWAYS AND STREETS—The Sanitary principles which should be observed in the construction and cleansing of streets and roads.

Candidates will be required to make free-hand sketches.

Any person having passed the above Examination and received the Certificate for Local Surveyor is, by virtue of having such Certificate, upon proposal and election as Member of the Institute, exempt from payment of the Entrance Fee, and will only be called upon to pay the reduced subscription of £1 1s. annually.

FOR INSPECTORS OF NUISANCES.

Duties of Inspectors of Nuisances as defined by the Local Government Board.

(1.) He shall perform, either under the special directions of the Sanitary Authority, or so far as authorized by the Sanitary Authority, under the directions of the Medical Officer of Health, or in cases where no such directions are required, without the directions are required, without the directions are required, without the directions are the directions are required. such directions, all the duties specially imposed upon an Inspector of Nuisances by the Public Health Act, 1875, or by any other Statute or Statutes, or by the Orders of the Local Government Board, so far as the same apply to his office.

(2.) He shall attend all meetings of the Sanitary

Authority when so required.

(3.) He shall by inspection of the District, both systematically at certain periods, and at intervals as occasion may require, keep himself informed in respect of the nuisances existing therein that require abatement.

(4.) On receiving notice of the existence of any nuisances within the District, or of the breach of any by-laws or regulations made by the Sanitary Authority for the suppression of nuisances, he shall, as carly as practicable, visit the spot, and inquire into such alleged nuisance or breach of by-laws or regulations.

(5.) He shall report to the Sanitary Authority any noxious, or offensive businesses, trades, or manufactories established within the District, and the breach or non-observance of any by-laws or regula-

tions made in respect of the same.

(6.) He shall report to the Sanitary Authority any damage done to any works of water supply, or other works belonging to them, and also any case of wilful or negligent waste of water supplied by them, or any fouling by gas, filth, or otherwise, of water used for

domestic purposes.
(7.) He shall from time to time, and forthwith upon complaint, visit and inspect the shops and places kept or used for the preparation or sale of butchers' meat, poultry, fish, fruit, vegetables, corn, bread, Syllabus of Subjects for Examination.

The Provisions of the Acts and Model By-Laws relating to the duties of Inspectors of Nuisances.

A knowledge of what constitutes a

Methods of Inspection, of Dwellings, Cellar Dwellings, Dairies, Milk-shops, Markets, Slaughter-houses, Cow-sheds, Canal Boats and Nuisances especially connected with Trades and Manufactories.

The Physical Characteristics of good Drinking Water-the various ways in which it may be polluted, by Damage to Supply Works or in Houses, and the means of preventing pollution-Methods of Water Supply.

flour, milk, or any other article to which the provisions of the Public Health Act, 1875, in this behalf shall apply, and examine any animal, carcase, meat, poultry, game, flesh, fish, fruit, vegetables, corn, bread, flour, milk, or any other article as aforesaid, which may be therein; and in case any such article appear to him to be intended for the food of man, and to be unfit for such food, he shall cause the same to be seized, and take such other proceedings as may be necessary in order to have the same dealt with by a Justice: Provided, that in any case of doubt arising under this clause, he shall report the matter to the Medical Officer of Health, with the view of obtaining his advice thereon.

(8.) He shall, when and as directed by the Sanitary Authority, procure and submit samples of food, drink, or drugs suspected to be adulterated, to be analysed by the analyst appointed under "The Sale of Food and Drugs Act, 1875," and upon receiving a certificate stating that the articles of food, drink, or drugs are adulterated, cause a complaint to be made, and

take the other proceedings prescribed by that Act.

(9.) He shall give immediate notice to the Medical Officer of Health of the occurrence within the district of any contagious, infectious, or epidemic disease; and whenever it appears to him that the intervention of such officer is necessary in consequence of the existence of any nuisance injurious to health, or of any overcrowding in a house, he shall forthwith inform the Medical Officer of Health thereof.

(10.) He shall, subject to the directions of the Sanitary Authority, attend to the instructions of the Medical Officer of Health with respect to any measures which can be lawfully taken by an Inspector of Nuisances under the Public Health Act, 1875, or under any other Statute or Statutes, for preventing the sprend of any contagious, infectious, or epidemic disease of a dangerous character.

(11.) He shall enter from day to day, in a book to be provided by the Sanitary Authority, particulars of his inspections and of the action taken by him in the execution of his duties. He shall also keep a book or books, to be provided by the Sanitary Authority, so arranged as to form, as far as possible, a continuous record of the sanitary condition of each of the premises in respect of which any action has been taken under the Public Health Act, 1875, or under any other Statute or Statutes, and shall keep any other systematic records that the Sanitary Authority

(12.) He shall at all reasonable times, when applied to by the Medical Officer of Health, produce to him his books, or any of them, and render to him such information as he may be able to furnish with respect to any matter to which the duties of Inspector of Nuisances relate.

(13.) He shall, if directed by the Sanitary Authority to do so, superintend and see to the due execution of all works which may be undertaken under their direction for the suppression or removal

of nuisances within the district.
(14.) He shall, if directed by the Sanitary Authority to do so, act as Officer of the said Authority as Local Authority under the Contagious Diseases (Animals) Act, 1856, and any Orders or Regulations made thereunder.

(15.) In matters not specially provided for in this Order, he shall observe and execute all the lawful orders and directions of the Sanitary Authority, and the Orders of the Local Government Board which may be hereafter issued, applicable to his office.

The Characteristics of good and bad Food (such as Meat, Fish, Milk, Vege-

The sale of Food and Drugs' Act,

The Regulations affecting persons suffering or recovering from Infectious diseases, and some knowledge of such diseases—The principles of Ventila-tion, and simple methods of Venti-lating Rooms—Measurement of Cubic

Disinfectants and Methods of Disin-

A Knowledge of the General Duties of the Office, and Methods of keeping the necessary Books and Records, Writing and Spelling.

The proper conditions of good Drainage—The advantages and disadvantages of various Sanitary Appliplances for Houses—Inspection of Builder's and Plumber's work—Scavenging and the Disposal of Refuse.

Any person having passed the above Examination and received the Certificate for Inspectors of Nuisances is, by virtue of having such Certificate, upon proposal and election as Associate of the Institute, exempt from payment of the Entrance Fee, and will only be called upon to pay the reduced subscription of 10s. 6d. annually.

Particulars as to Local Boards requiring Candidates to hold Certificates.

APPOINTMENT OF INSPECTORS OF NUISANCES. SANITARY QUALIFICATIONS.

For several years past it has been the practice of many Local Authorities to insert in their advertisements for Inspectors of Nuisances clauses similar to the following, or otherwise to definitely recognise the desirability of a Certificate:-

Extracts from advertisements—

POPLAR DISTRICT.

"... Candidates must possess a knowledge of building construction, and if not already in possession of the Certificate of The Sanitary Institute, must obtain such Certificate within twelve months of appointment..."

Paddington Parish, "... Applicants must have passed a satisfactory examination and be in possession of Certificates from The Sanitary Institute. . . ."

SHEFFIELD.

"... Candidates must hold the Certificate of The Sanitary Institute."

The following are some of the Towns and Parishes which have adopted this practice, with the dates of their several advertisements:-METROPOLITAN-26.

City of London, 1891 Battersea, 1885-89-91. Bethini Green, 1889-90. Newington, 1891. Camberwell, 1891. Fulham, 1890-90. Greenwich, 1890-91. Hackney, 1891. Hammersmith, 1891. Hampstead, 1891-92. Kensington, 1891. Lambeth, 1890.

[Limehouse, 1890, Marylebone, 1891. Paddington, 1884-89. Poplar, 1890. St. George's, Hanover Square, 1891. 1891. St. Luke's, 1887—91.

St. Margaret, Westminster, 1892. St. Mary, Islington-1892. St. Olave's, 1889. St. Pancras, 1885-87-90-92. St. Saviour's, 1889. St. James's, Westminster, Wandsworth (4), 1888-89-91. Whitechapel, 1891.

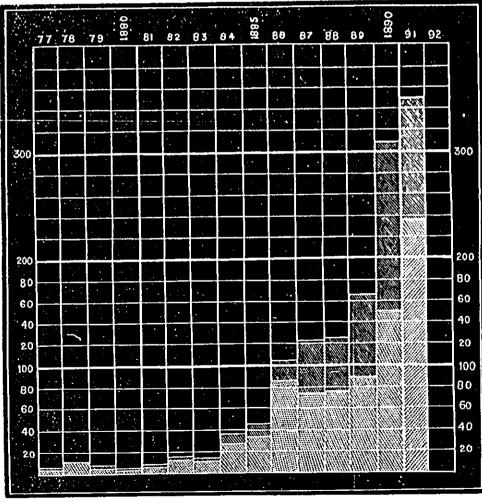
PROVINCIAL-63.

Barnet, 1890. Exeter, 1889. Bath, 1890. Battle, 1890. Foleshill, 1891. Hailsham, 1886-91. Bedwelty, 1891. Hanley, 1891. Birkenhead, 1891, Blackpool, 1889. Hartlepool, 1890. Kingston - upon - Hull, 1884—90—90. Blean, 1890. Bournemouth, 1891-91. Leeds, 1889. Liverpool, 1886—91. Lytham, 1887. Maidstone, 1889—89. Bradfield, 1891. Brierley Hill, 1890—91. Bristol, 1884-86. Bromley, Kent, 1891—91. Cardiff, 1890—91. Manchester, 1890-91. Margate, 1888—90. Milton-by-Sittingbourne, Carlisle, 1890. Carnarvon, 1891. 1837. Nantyglo, 1891. Nelson, 1892. Chiswick, 1891. Coventry, 1891, Croydon, 1891, Darwen, 1891. Newcastle-on-Tyne, 1891. Newmarket, 1887-88-90. Dewsbury, 1886-90. Norwich, 1892. Eastbourne, 1889. Oswestry, 1887. Pontypridd, 1890. Ely, 1888.

Portsmouth, 1890. Rhyl, 1890. Salford, 1891. Scarborough, 1888. Sheffield, 1890-91. Southampton, 1890-91. Stockport, 1891. Stockton, 1887-89-90-91, Sunderland, 1885. Tendring, 1891. Thakeliam, 1890-90. Twickenham, 1887. Wakefield, 1891. Ware, 1891. Watford, 1887. West Ham, 1891. Wigan, 1891. Willesden, 1891. Wimbledon, 1890. | Worthing, 1890—91. Yorkshire, W.R., 1891.

Table showing the number of Candidates examined and certified each year; and Diagram relating to the Inspectors' Examination only.

	Nui	nber Exam	ined.	Certificated.				
Year.				Number.			Per cent, of Total.	
	Surveyor	Inspector	Total.	Surveyor	Inspector	Total.	Surveyor.	Inspector
1877	3	5	8	2	3	5	67	co
1878	ıĭ	10	21	2 3	10	13	27	100
1879	4	6	10	2	4	ti.	50	67
1880	10	ä	13	$\bar{6}$	2	8 8	60	67
1881	7	7	14	2	6	8	29	80
1882	Ġ	15	21	3	13	16	50	87
	7	13	20		ii l	14	43	85
1883	1 .		50	3 7 5	27	$\overline{34}$	50	75
1831	14	86			33	38	25	75
1885	20	44	64		86	95	47	82
1886	19	105	124	0 7		82		ΰi
1887	17	122	139	1 3	75	85	41 33	63
1888	25	124	149	8 5	77		56	
-1889	()	165	174	1 2	80	91		53
1890	18	307	325	8 8	151	159	4.5	49
1891	11	350	361	8	238	246	7.3	68
	181	1312	1493	78	825	903	43	63



Note.—The total number of Candidates is shown by the whole height of the column shaded, and the number who have obtained Certificates by the lighter portion.

CANDIDATES WHO RECEIVED CERTIFICATES DURING 1891.

LOCAL SURVEYORS.

- 1891, June 6. Felkin, Howard Riley, Vestry Hall, Hammersmith.
- 1891, June 6. Flower, Thomas James Moss, Liverpool Chambers, Corn Street, Bristol.
- 1891, June 6. Gibbs, Anthur Gordon, The Square, Storrington, Pulborough.
- 1891, June 6. Graves, Matthew Dodgson, 7½, College Street, York, 1891, June 6. Hills, Harry James, 27, Park Road, New Wandsworth, S.W.
- 1891, June 6. KAY, WALTER ROBERT, Mount Sion House, Bury, Lancashire.
- 1891, June 6. Morley, Edwin, Town Hall, Walthamstow.
- 1891, June 6. Saise, Alfred John, Fishponds, Bristol.

INSPECTORS OF NUISANCES.

- 1891, Dec. 19. Adams, Richard, 294, The Borough Road, Birkenhead.
- 1891, Apr. 11. Addison, Scott, 15, Mostyn Road, Bow, E.
- 1891, Dec. 5. Andrews, Daniel James, Court House, Marylebone.
- 1891, Dec. 5. Anthony, Frederick Joseph, 33, Yatton Street, Bromley-by-Bow.
- 1891, Dec. 19. Ashworth, James II., 5, Catherine Street, Lees, near Oldham.
- 1891, Dec. 5. ATHEY, FREDERICK, 47, Penge Road, South Norwood.
- 1891, Dec. 5. ATKINS, ROBERT WILLIAM, 32, Holmwood Road, South Norwood.
- 1891, Dec. 5. AYLIFFE, CHARLES WILLIAM L., Vine Cottage, Ascot.
- 1891, Dec. 5. Bailes, Christopher John, 6, Albert Street, Newcastle-on-Tyne.
- 1891, Dec. 5. Bailey, Robert, Northchurch, Berkhampstead.
- 1891, Dec. 5. BAKER, WILLIAM KIRKHAM, Infectious Hospital,
 Mill Road, Cambridge.
- 1891, June 27. BARKER, JOHN, Princess Street, Corbridge-on-Tyne.
- 1891, Aug. 29. BARRETT, GEORGE WILLIAM, Brownhills, Walsall. 1891, Apr. 11. BAZLEY, JAMES, 16, Sandford Street, Exeter.
- 1891, Aug. 29. BEECH, JAMES, Ivy Cottage, Brownhills, Tunstall.
- 1891, Apr. 11. Bland, John S., 46, Palmer Street, Blackburn.
- 1891, Feb. 14. BOURNE, EDWARD, 256, High Street, Cheltenham.
- 1891, Feb. 14. Boyd, James M., 41, English Street, Dumfries.
- 1891, June 27. Brook, Joseph, Jun., 121, Park Hill Road, Liverpool.

1891, Feb. 14. Brown, George William, 3, Marle Hill Villas, Cheltenham. 1891, Aug. 29. Brown, Robert Pinning, 3, Cane Hill Villas, Purley, Surrey. 1891, Dec. 5. BRYAN, JOSEPH JAMES, 20, Thornhill Square, Barns-1891, Apr. 11. Bubb, John Thomas, 38, Albert Park, Bristol. 1891, Dec. 19. Buckley, HARRY, Alma Terrace, Strines, near Stock-1891, Aug. 29. Burgess, Charles, Burstem. 1891, Dec. 19. Burslam, Randle, Town Hall, Congleton. 1891, Dec. 5. Buxton, Edmund, Maufield, Ashbourne. 1891, Dec. 19. CARR, WILLIAM HENRY, 12, West Street, Nelson, Lancashire. 1891, Apr. 11. CARTER, ALFRED, 71, Leighton Road, Kentish Town. 1891, Apr. 11. CARY, AQUILLA S., 8, Brunswick Crescent, Brunswick Park, New Southgate, N. 1891, Apr. 11. Cass, Robert William, 19, Brunswick Road, St. George's Road, Hull. 1891, Dec. 5. CAVE, JAMES, Town Hall, Kensington. 1891, Aug. 29. CHAPMAN, JOHN JAMES, Stone, Staffordshire. 1891, Dec. 5. CHAPPELL, WILLIAM, 96, Grove Road, Holloway. 1891, Aug. 29. Cheshire, Alfred, 64, Church Street, Rugeley. 1891, June 27. CLARK, WILLIAM, Jun., 53, John Clay Street, South Shields. 1891, Apr. 11. CLARKE, JOHN HENRY, 5, Fufield, Andover, Hants. 1891, Dec. 5. CLARKE, ROBERT EDWYN, 5, Gibson Square, N. 1891, Dec. 19. Coles, John Thomas, 18, St. George's Road, Winsford, Cheshire. 1891, Apr. 11. Collins, Henry Beale, M.R.C.S., L.S.A., 16, Little Grosvenor Street, W. 1891, Aug. 29. COLLYER, JOHN, Uttoxeter, Staffordshire. 1891, Dec. 5. Cook, Alfred, 100, Frampton Park Road, Hackney. 1891, June 27. Cook, JAMES, Warton, near Carnforth. 1891, Dec. 5. CORBY, THOMAS, 13, Rochester Road, Camden Road, N.W. 1891, Dec. 19. CORCORAN, BERNARD, Foregate Street, Stafford. 1891, Apr. 11. Corp., James, 16, Harrington Square, N.W. 1891, Aug. 29. Coner, William Henry, Holyhead Road, Wednes-1891, Aug. 29. Cottle, Arthur Thomas, Selly Oak, near Birming-

1891, Dec. 19. Coupe, EDWARD, 14, Royle Road, Chorley.

Liverpool.

Brixton.

Yarmouth.

1891, Dec. 19. CRUDEN, JOHN, Berwick-upon-Tweed.

1891, Dec. 19. COWDEN, DAVID BARTLEY, Anfield Cemetery, Anfield,

1891, Dec. 5. CRABBE, WALTER GEORGE, 44, St. Lawrence Road,

1891, Apr. 11. CRANE, JOSEPH, 93, Trafalgar Road, Gorleston, Gt.

CANDIDATES WHO RECEIVED CERTIFICATES IN 1891.

1891, Apr. 11. Culling, James George, Swaffham, Norfolk. 1891, Apr. 11. CURTIN, WILLIAM HENRY, 12, Studley Avenue, Holderness Road, Hull. 1891, Apr. 11. Dale, Duncan, 312, Camberwell New Road, S.E. 1891, Apr. 11. DAWSON, JOHN MARSHALL, 93, Malpas Rd., Brockley, 1891, Apr. 11. Docking, Frederick Reynolds, Oak Lodge, Beddington Lane, Mitcham. 1891, June 27. Dowsing, Alfred, Mawneys Road, Romford, Essex. 1891, Apr. 11. Drake, John, 2, Gloucester Road, Teignmouth. 1891, June 27. DRYDEN, JOSEPH, 13, Cardigan Street, Stockton-on-1891, Aug. 29. Duthie, Alexander, 93, High Street, Brechin. 1891, Apr. 11. DYKE, ALFRED WILLIAM, St. John's Wharf, Wandsworth Bridge, Fulham. 1801, Apr. 11. EARWICKER, JOHN CHARLES, 3, Clarence Terrice, St. Mary's Grove, Richmond, Surrey. 1891, Aug. 29. Eccles, William Henry, 98, Kay Street, Darwen. 1891, Dec. 19. Felton, William, Underhill Cottage, Oswestry. 1891, Dec. 19. FOSTER, THOMAS, 39, Bradford Road, Otley, Yorks. 1891, Aug. 29. FYLES, JOHN, Local Board, Smethwick, Birmingham. 1801, Dec. 5. GAMMANS, DAVID, 68, Duncan Road, Southsea. 1891, Dec. 19. GERRARD, JOHN, 43, Woolton St., Woolton, Liverpool. 1891, Aug. 29. Giles, John C., Dennis Lodge, Brettel Lane, Stourbridge. 1891, Apr. 11. GILLESPIE, REV. CHARLES GEORGE KNOX, 2, Darwin Terrace, Derby. 1891, Dec. 19. GRIFFIN, GEORGE FREDERICK AUGUSTUS, Nottingham Road, Mansfield, Notts. 1891, Dec. 5. GOATES, JOHN PERCY, 16, Great Newport Street, Charing Cross Road. 1891, Feb. 14. GODSALL, HENRY JOHN, Local Board Offices, Park Road, Saltley, Birmingham. 1891, Aug. 29. GOODALL, SAMUEL ARTHUR, 109, Raglan Street, 1891, Dec. 5. GOODMAN, HERBERT, 4, Clapton Common, N.E. 1891, Dec. 5. GORNIOT, THOMAS, 98, Bingfield Street, King's Cross. 1891, Apr. 11. GRAY, HERBERT GEORGE, 16, Timpson Street Portsmouth. 1891, Apr. 11. GREEN, EDWARD ALBERT, 16, Rock Street, Sheffield. 1891, Apr. 11. GRIVELL, ELIAS JAMES, 10, Salisbury Rd., Gloucester. 1891, Feb. 14. Hanson, John H., Laughton, Gainsborough. 1891. Apr. 11. HARDY, GEORGE HURLSTONE, Park Rd., Twickenham. 1891, Feb. 14. HARPER, FRANK, 39, Derby Road, Northampton. 1891, Apr. 11. HARRIS, GEORGE, 11, Holly Park Terrace, New Southgate, N. 1891, June 27. HATTON, CHARLES, 24, Church Street, Hereford. HEAPS, WILLIAM, Jun., 28, Parker Street, Chorley. 1891. June 27. 1891, Dec. 19. HEBDEN, JOSEPH HENRY, 1, Eton Street, Hessle Road,

Hull.

1891, Apr. 11. Henwood, John Henry, 252, Crystal Palace Road, S.E.

1891, June 27. Herbert, Harry, 3, Charge Place, Stockton-on-Tecs. 1891, Dec. 5. High, George Frederick, 28, Clifden Road, Lower

Clapton.

1891, Dec. 5. Hogbin, Leonard William, Victoria House, Herne Bay, Kent.

1891, Dec. 5. HORLOCK, CHARLES WILLIAM, Little Horsted, Uchfield, Sussex.

1891, June 27. Honner, Benjamin Roper, Town Hall, Bradford. 1891, June 27. Horsman, Charles Edwin, 8, Bedford Square, Bishopwearmouth, Sunderland.

1891, Dec. 5. Horros, Richard, 46, Royal Arenne, Chelsea. 1891, Aug. 29. Howell, Edward William, Stoke-upon-Trent.

1891, Aug. 29. Hugues, Walter, Thompson Street, Bilston.

1891, Apr. 11. Hyslor, James, 18, New Park Street, Blackburn, 1891, Dec. 5. Indiam, John William, 1, Buxton Terrace, Chichester Road, Leytonstone,

1891, Aug. 29. Inskip, Frederick Thomas, Dilhorn, Stoke-on-Trent. 1891, Dec. 19. IRVING, WILLIAM, Local Board Offices, Wigton, Cumberland.

1891, Dec. 19. Jackson, James, Town Hall, Huddersfield.

1891. June 27. JACKSON, WILLIAM, Local Board Offices, Ramsbottom.

1891, June 27. Janvey, George, Town Hall, Salford.

1891, June 27. Johnson, Matthew, 31, Palmer Street, Jarrow.

1891, Dec. 5. Kennedy, Daniel, 19, Tremlett Grove, Junction Road, N.

1891, Apr. 11. Kershaw, Edward Baxter, 115, Wellfield Road, Streatham.

1891, Apr. 11. King, Albert Sydney Waterlow, 27, Solon Road, Brixton. 1891, Dec. 5. King, Richard Wilson, 197, Stanhope Street, New-

castle-on-Tync. 1891, June 27. Kink, William Hugh, Town Hall, Newcastle-on-

1891, Apr. 11. Laird, James Campbell, 3, Emma Street, Blair-

gowrie, N.B. 1891, Aug. 29. LASKEY, CARLOS WILLIAM, 33, Enbridge Street, Salford.

1891, Dec. 5. LAWRENCE, CHARLES, 35, Reedham Street, Choumert Road, Peckham.

1891, June 27. LEAR, CHAS. FRANK E., Alverstoke, Gosport, Hants. 1891, Dec. 19. Leigh, Frederick George, The Sanitorium, Whiston,

Prescot. 1891, Dec. 5. Lewis, Fred. John, 64, Clifton Hill, N.W.

1891, Apr. 11. Lewis, Seth, Sanitary Office, Stockport.

1891, Apr. 11. LLOYD, CHRISTOPHER, 2, St. Mark's Terrace, New Brompton, Kent.

1891, Apr. 11. Locke, Walter Richard, 13, Great Percy Street, W.C.

1891, Aug. 29. Lowny, John, Bradmore, Wolverhampton.

1891, Aug. 29. Lowry, Thomas Augustus, Bradmore, Wolverhampton.

1891, Apr. 11. Mackie, Adam, 23, Thomas Street, Woolwich.

1891, Aug. 29. Madin, William B., Town Hall, Leck.

1891, Apr. 11. Mager, Frederick Walter, 11, Quiet Street, Bath. 1891, Dec. 5. Malvers, Thomas, Winchcomb Street, Cheltenham.

1891, Dec. 19. Marniott, James, Town Hall, Salford.

1891, June 27. Marsden, William Edward, 13, Springfield Street, Darwen.

1801, Dec. 19. MARTIN, ROBERT, 17. Wawne Street, Spring Bank, Hull.

1891, Apr. 11. Martin, William, Jun., Glenburn, Carluke, N.B.

1891, Dec. 19. MATTHEW, FREDERICK, Kedleston, Derby.

1891, Dec. 5. MATTHEWS, DEMAS WALTER, 103, Kidd Street, Woolwich.

1891, Dec. 5. MANWELL, WILLIAM HENRY, Victoria House, Locksbrook, Bath.

1891, Dec. 19. METCALE, JOHN, 14, Athol Road, Sunderland.

1891, Dec. 5. MIDDLETON, HAYDN, 15, Gray Street, Barnsbury.

1891, June 27. MILLER, HENRY, The Wilderness, Norwich.

1891, Dec. 5. MILLS, JOSHUA GEORGE, North Road, West Kirby, Cheshire.

1891, Apr. 11. Milner, Walter, 40, Sackville Street, Piccadilly.

1891, Dec. 5. MITCHELL, THOMAS, 34, Munster Square, Euston Road, N.W.

1891, Dec. 5. MONK, ALBERT THOMAS, 98, King Street, Woolwich.

1891, Apr. 11. Morgan, William, Bryncadler, Pontyclown, Glamorgan.

1891, Feb. 14. Morris, Griffith John, Garden Vale, Athlone, Ireland.

1891, Aug. 29. Moss, Samuel, Williamson Street, Tunstall.

1891, Dec. 5. NEWMAN, REGINALD WILLIAM, Cator Estate Office. Beckenham.

1891, Aug. 29. NICKLIN, JOSEPH, Rowley Regis, Stafford.

1891, Dec. 5. NORMAN, ERNEST WILLIAM, 4, Albany Terrace, Forest Gate, E.

1891, Aug. 29. NUTTALL, ELLIS, 4, Oak Street, Rawtenstall.

1891, Dec. 19. ORRELL, THOMAS, Carr Cottage, Threlkeld, near Keswick.

1891, June 27. OUTRAM, MASON, Mill House, Dronfield, Sheffield.

1891, Apr. 11. PARAMOR, ROBERT WALTER, 16, Randolph Gardens,

1891, Dec. 5. Parsley, Frederick William, 200, Marylebone Road, W.

1891, Aug. 29. PAYNE, THOMAS, Hill Top, Warley, Oldbury.

1891, Apr. 11. Peake, Thomas Jones, 61, Wybunbury Road,

1891, Apr. 11. Pemberton, Oliver, 273, Wheeler Street, Birming-

- 1891, Dec. 5. POLLARD, EDWARD, Pioneer Lodge, Church Road, Leyton.
- 1891, June 27. Pool, FRED, 3, Convent Lane, Anlaby Road, Hull.
- 1891, Apr. 11. Powell, Charles Jennings, 1, Mountrath Street, Walsall.
- 1891, Dec. 5. POWELL, WILLIAM ARTHUR, 27, Endymion Road, Finsbury Park.
- 1891, Aug. 29. PRATT, RICHARD CHARLES, Jun., 2, Whycliffe Road, Purley, Surrey,
- 1891, Aug. 29. PRICE, JOHN, 29, Elliot Street, Newcastle, Stafford-
- 1891, Dec. 19. PRIESTLEY, JOHN A., Ash Cottage, Grange Lane, Accrington.
- 1891, Dec. 5. REAVELL, FRANK NOBLE, Maybank Road, Woodford.
- 1891, June 27. RICHARDS, ISAAC JOHN, Town Hall, Gateshead. 1891, Dec. 5. ROBERTS, DAVID MORRIS, Berlin House, High Street, Portmadoc.
- 1891, Dec. 19. Robson, Lancelot, 12, Stockton Street, West Hartle-
- 1891, Apr. 11. Roe, Edward Charles, Jun., Maswell Park, Houns-
- 1891, Apr. 11. Rossiter, Robert Herbert, 15, Sloane Terrace, S.W.
- 1891, June 27. ROWLAND, ARTHUR, 5, Cambridge Street, Hull,
- 1891, June 27. SALMON, JAMES, 1, Montrose Street, Glasgow.
- 1891, Aug. 29. Salt, Samuel, Town Hall, Hanley.
- 1891, June 27. Seinor, John Sidney, 3, Queen's Road, Gosport.
- 1891, Dec. 5. Shapley, William G., 37, Copeland Road, Peckham. 1891, Aug. 29. Shaw, Joe Henry, Brownhills, Walsall.
- 1891, Apr. 11. Shepherd, Wallace John, 13, Bellfields Road, Brixton.
- 1891, Dec. 5. SHILL, ALBERT EDMUND, 30, Dayton Grove, Peckham. 1891, Aug. 29. Shufflebotham, William, Roche House, Weston
- Street, Leek, Staffordshire. 1891, Dec. 19. SHUTTLEWORTH, WILLIAM, Town Hall, Salford.
- 1891, Dec. 19. SIDDALL, JOSEPH, Stalybridge Road, Ashton-under-Lyne.
- 1891, Apr. 11. SIMMONS, EDWARD JOHN, 80, Paulet Road, Camber-
- 1891, Dec. 5. SIMMONS, THOMAS, 50, Victor Road, Seven Sisters Road, N.
- 1891, June 27. SIMPSON, ROBERT, 16, Dobing Street, Stockton-on-Tees.
- 1891, Dec. 5. SIMPSON, ROBERT DAVID JAMES, Board of Works, Dentford.
- 1891, Apr. 11. SINGLETON, THOMAS, 19, Randolph Street, Camden Town, N.W.
- 1891, Dec. 5. SLATER, HERBERT, 24, Bond Street, Leeds.
- 1891, Dec. 5. SMITH, GEORGE, 15, St. Anne's Terrace, St. John's Wood, N.W.
- 1891, Apr. 11. Smith, James, 7, Park Street, Macclesfield.

- 1891, Dec. 19. SMITH, JOHN, 39, Makin Road, Attercliffe, Sheffield.
- 1891, Apr. 11. SMITH, WARREN BODEN, 68, College Street, Chelsea.
- 1891, Apr. 11. Stanley, Walter, 67, Derringham Street, Hull, 1891. Dec. 5. STANNARD, HARRY WILLIAM, Market Place, Rugby.
- 1891. Dec. 5. STANSFELD, ALFRED, 2, Tokenhouse Buildings, E.C.
- 1801, Aug. 29. Steward, James, 14, Clarence Place, Whitby.
- 1891, Dec. 5. STREATHER, WILLIAM TURNER, 4, Lismore Road, Gospel Oak, N.W.
- 1891, Dec. 5. SULLIVAN, JAMES WAITER, Vestry Offices, Battersea
- 1801. Dec. 5. Sumner, Frank, 17, Kingsley Road, Kilburn, N.W.
- 1891, Apr. 11. Sumner, John, 15, Windsor Street, Wigan.
- 1891. Apr. 11. Switzer, Sidney, 9, Derby Street, Gray's Inn Road.
- 1891. June 27. SYKES. WALTER MORTON, Gill House, Ulverston.
- 1891, June 27. TATE, ROBERT W., 98, Howard Street, North Shields. 1891, Aug. 29. TAYLOR, HARRY WILLIAM, Ibstock, Ashby-de-la-
- Zouch.
- 1801, Apr. 11. THATCHER, ALBERT GEO. HENDY, Hampton Court Palace, Kingston.
- 1891, Apr. 11. THOMPSON, RALPH, Hall Stile Bank, Hexham.
- 1891, Dec. 19. TINDELL, ROBERT L., Municipal Offices, Leeds.
- 1891, Dec. 5. TITMUSS, JOSEPH E., 8, Sidney Terrace, Winkfield Road, Wood Green.
- 1891, Aug. 29. Tomkys, Frank Law, Borough Surveyor's Office, Yeovil.
- 1891, Dec. 19. Tomlinson, Frank, 59, Sheriff Street, Rochdale. Toms. William Charles, 14, Evandale Rd., Brixton.
- 1891, Dec. 5. 1891, Dec. 5. Townsend, John Walter, "Wedreda," Wimbledon.
- 1891, Apr. 11. Toynbee, William Samuel, 24, Lorne Terrace,
- Greenwich. 1891, Apr. 11. TURNER, WILLIAM HENRY, 7, Wheatstone Road, Southsea, Portsmouth.
- 1891, Apr. 11. VINCENT, GEORGE EDWARDS BUSSELL, 49, Huntingdon Street, Kingsland Road, N.
- 1891, Dec. 5. WALDEN, ROBERT HENRY, "Chandos," Drummond Road, Bournemouth.
- 1891, Dec. 5. WALL, SAMUEL EDWARD, 26, Mount View Road, Stroud Green, N.
- WARD, HORACE TEMPEST, 89, Woodroyd Road, West 1891, Dec. 19. Bowling, Bradford.
- WATSON, HARRY JOHN, 5, Upper John Street, Golden 1891, Dec. 5. Square, W.
- WATSON, THOMAS, Kirkoswald, Cumberland. 1891, Dec. 19.
- Weatheritt, James, Town Hall, Newcastle-on-Tyne. 1891. June 27. WEBB, ALBERT EDWARD, 154, Sultan Road, Ports-1891, June 27.
- mouth. WEST, JOHN, 118, Leathwaite Rd., Clapham Common. 1891, Dec. 5.
- WHITELAW, CHARLES EDWARD, 9, Selborne Terrace, 1891, Dec. 5. Fratton, Portsmouth.
- 1891, Dec. 19. WHITHAM, JOSEPH, Shelf, Halifax.

1891, Apr. 11. WHITTOME, PHILIP ALTRED, The Chestnuts, Rotheray Road, Bedford.

1891, Apr. 11. Wilde, Alfred James, Mill Road, Cleethorpes, Lincolnshire,

1891, Dec. 19. Williams, Grorge, Jun., 6, Priory Road, Everton, Liverpool.

1891, Dec. 5. WILLIAMS, JOSEPH, 30, Goldhurst Terrace, Finchley Road, N. W.

1891, Dec. 19. WILLIAMS, RICHARD, Jun., 14, Lucerne Street, Lark Lane, Sefton Park, Liverpool.

1891, Dec. 5. Wilson, John Fairweather, London County Council, Spring Gardens, S. W.

1891, Dec. 19. Wood, Altred, 6, Eldon Street, Bury.

1891, Aug.29. WOODESON, WILLIAM, 1A, Charles Street, Pendleton, Manchester,

1891, Dec. 5. WOODMAN, HENRY FREDERICK, 18, Burlington Road, Westbourne Park.

1891, Dec. 19. Woods, Henry Thomas, 5, Newton Street, Millom.

1891, Dec. 5. Woods, Herdert D'Lima, 11, Buckley Road, Kilburn, N. W.

1891, Apr. 11. Worrall, Ernest, 64, Rappart Road, Seacombe.

1891, Aug. 29. WORRALL, WILLIAM HENRY, 208, High Street, Harborne.

1891, Dec. 5. Worsley, Arthur Henry, Public Offices, Dyne Road, Kilburn.

1891, Dec. 5. YATES, ROBERT, 42, Lucas Street, Pimlico.

1891, Dec. 5. Young, Frank Russell, 18, Palmerston Road, Walthamstow.

1891, Dec. 5. Young, Isaac, 3, Spencer Street, Park Rd., Battersea.

CONTRIBUTIONS TO THE LIBRARY DURING 1891.

In addition to the works enumerated in the following list, valuable donations of back numbers of Reports, and other official publications have been received from Prof. W. II. Corfield (84 vols.), and The Royal Meteorological Society (50 vols.).

ACADEMIES (AMERICAN).

Philadelphia. College of Physicians. Transactions, Third Series, Vol. XII., 1890. 203 p., 8vo. Philadelphia, 1890. The College. Toronto. Canadian Institute. Fourth Annual Report, Session 1890-91, being an Appendix to the Report of the Minister of Education, Ontario. 89 p., 8vo. Toronto, 1891. The Institute.

— Canadian Institute. The Transactions, Vol. I., Part I. & II. 130 p. & 164 p., 8vo. Toronto, 1890 & 1891. The Institute.

— Canadian Institute. Transactions, Vol. II. 157 p., 8vo. Toronto, 1891.

ACADEMIES (Australian).

Melbourne. Australian Health Society. Fifteenth Annual Report, 1889-90. 16 p., Svo. Melbourne, 1890. A. Lindall. - Australian Health Society. "Diseases which should be prevented," a Lecture delivered under the auspices of the Society by J. Jamieson, M.D. 16 p., 8vo. Melbourne, 1890. The Society. ---- Working Men's College. Report, 1890. 79 p., 8vo. Melbourne, 1891. The College. ---- Working Men's College. Prospectus for 1891. 61 p., Svo. The College. Melbourne, 1891. New South Wales. Royal Society. Journal and Proceedings for 1891. Vol. XXIV., 340 p., 8vo. Sydney, 1891. The Society. - Annual Report of the Department of Mines, New South Wales, for the year 1890. 312 p., f. cap. Sydney, 1891. Agent-General.

ACADEMIES (BRITISH).

Glasgow. Institute of Engineers and Shipbuilders in Scotland. Vol. XXXIV., 1890-91. 382 p., 8vo. Plates. Glasgow, 1891. The Institute.

London. Home for Inebriates Association. Report for 1890, together with Seventh Annual Report of the Dalrymple Home at Rickmansworth. 15 p., 8vo. London, 1891. The Association.

Statistical Society. Transactions, Vol. XIV. 447 p., 8vo. London, 1891.

The Society.

Pathological Registrars for the year 1889. 271 p., 8vo. London, 1891.

The Hospital.

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The Author.

The Author.

The Author.

London. Municipal and County Engineers' Association. Proceedings, Vol. XVII., 1890-91. 289 p., 8vo. London, 1891. The Association. - Royal Institution. Additions to the Second Volume of the Catalogue of the Library of 1882-90. 71 p., 8vo. The Institution. - Royal Institution of Great Britain. Proceedings, Vol. XIII. p., 8vo. London, 1891. The Institution. Royal Meteorological Society. Catalogue of the Library of the Society. London, 1891. 214 p., 8vo. Society. London, 1801. 214 p., Con.

- Royal Statistical Society. Journal, Vol. LIV., p., 8vo.

The Society. The Society. London, 1891. - Society of Engineers. Transactions for 1890, and General Index, 1861-1890. 242 p., 8vo. Plates. London, 1891. The Society. - St. Thomas's Hospital. Reports, Vol. XIX. 463 p. London, 1891. The Hospital. - University College Calendar. Session, 1801-92. 420 p., 8vo. London, 1891. The College. Manchester and Salford Sanitary Association. Annual Report of the Committee for 1890. 120 p., 8vo. The Association. Newcastle-on-Tyne. North of England Institute of Mining and: Mechanical Engineers. Transactions, Vol. XXXVIII., Part VI. Vol. XXXIX., Parts I. and II.; Vol. XL., Parts I., II., and III. Annual Report, &c. Svo. Newcastle, 1891. The Institute. Airy, Wilfred. A supplement in corroboration of Mr. Shones' critique upon Mr. Mansergh's Report on the Drainage of Melbourne. 40 p., 8vo. London, 1891. The Author. - Africa, The Voyage to South, and sojourn there. 78 p., 8vo. Maps. London, 1891. Allan, Dr. F. J. Aids to Sanitary Science. 236 p., 16mo. London, 1890. The Author. Board of Agriculture. Agricultural produce statistics of Great Britain, showing the estimated total produce and average yield per acre of the principal crops, with abstract returns for the United Kingdom, 1890. 33 p., 8vo. London, 1891. Director Statistical Intelligence Department. - Agriculture Returns, 1891. 3 p. London, 1891. The Board. — Agricultural Returns of Great Britain, with Abstract Returns for the United Kingdom, British Possessions and Foreign Countries. 197 p., 8vo. London, 1890.

Annual Report of the Veterinary Department for the year

— Annual Report of the Intelligence Department on Injurious

Insects and Fungi, 1890. 31 p., 8vo. London, 1891. The Board.

Prof. Brown.

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PERIODICALS.

WEEKLY.

British Medical Journal. Builder. Builder.
Contract Journal.
Engineering and Building Record.
Industries.
Journal d'Hygiène.
Local Government Chronicle.
Metropolitan.
Nursing Record.
Sanitary News.

MONTHLY.

Building World. Plumber and Decorator. Practitioner. Public Health. Sanitarian. Sanitary Record. Sei-i-Kwai Medical Journal.

1891.

44 f. cap., 4to. Roma, 1891.

del, 1891. 17 p. Roma, 1891.

Pilley, J. J. Hygiene, the Principles of Health. 190 p., Svo. The Author. London, 1888. - South Kensington Hygiene. 190 p., Svo. London, 1889. The Author. Plowright, C.B. On the cause and distribution of Calculous Disease. Parts 1. and 11. 43 p., maps, 8vo. London, 1885-86. W. Whitaker. Porter, H. W. On some considerations suggested by the Annual Reports of the Registrar-General, being an inquiry into the question as to how far the inordinate mortality in this country exhibited by those reports is controllable by Human Agency. 73 p., Svo. Extract from the "Assurance Magazine and Journal of the Institute of Actuaries," Vol. IX. Registrar-General, England. Annual Summary of Births, Deaths, and Marriages, and Causes of Death in London and other great Registrar-General. towns, 1890. 59 p., Svo. London, 1891. - England. Fifty-second Annual Report of the Registrar-General of Births, Deaths, and Marriages, in England, 1889. 228 p., 8vo. London, 1890. Scotland. Thirty-fourth Detailed Annual Report of the Registrar-General of Births, Deaths, and Marriages, in Scotland (Abstracts of, 1888). 459 p., 8vo. Edinburgh, 1889. Richmond Main Sewerage and Drainage. An account of the works carried out by the Richmond Main Sewerage Board for the collection and disposal of the sewage of the parishes of Richmond, Barnes, Mortlake, Kew, and Petersham, with a brief history of the subject. 16 p., maps. London, 1891. W. Whitaker. Robinson, Prof. II. Address on Electric Lighting, at Electrical Exhibition, St. Paneras Vestry Hall, on 20th March, 1891. 7 p., The Author. Svo. London, 1891. - Paper on Sewage Disposal with reference to River Pollution and Water Supply. 11 p., 8vo. Excerpt from Trans. International Congress of Hygiene and Demography, 1891. Author. Rome. Annali dell' Instituto d'Igiene sperimentale della R. Università di Roma. Vol. I. (Nuovo Serie) Fasi 1, 84 p., 8vo. Instituto d'Igiene. Roma, 1891. – Ánnali dell' Instituto d'Igiene sperimentale della R. Università di Roma. Vol. I. 265 p., 8vo. Roma, 1891. Instituto d'Igiene. - Applicazione di una vaschetta a chiusura idraulica sul tipo delle fosse. Mouras e di un filtro a torba per le acque luride nel sistema di fognatura separata tubolare per il Prof. L. Pagliani. Ministero dell' Interno. 13 p., f. cap. Roma, 1891. - Azione dei microfiti sui composti arsenicali fissi. 7 p. Roma,

- Circa I Fatti Principali Riguardansi d'Igiene e la Sanità

Circa I Fatti Principali Riguardansi d'Igiene e la Sanità

Pubblica, nel Regno nell'ultimo trimestre, 1890, e gennaio, 1891.

Pubblica, nel Regno nei mesi di Giugno, Luglio Agosto e Settembre

Ministero dell' Interno.

Ministero dell' Interno.

Rome. Dell' analisi degli Alcool Sotto il Riguardo Igienico. 12 p., f. cap. Roma, 1891. — Il regolamento sul meretricio davanti al consiglio superiore di sanità. 66 p., f. cap. Roma, 1891. Ministero dell' Interno.

La Linfa di Koch nella Cura Della Morva del Cavallo. 4 p., f. cap. Roma, 1891. - Regolamento Speciale di Polizia Mortuaria. 36 p., 8vo. Direzione della Sanità Publica. Roma, 1891. Regolamento Speciale sulle Conservazione dell Vaccino e sulla Vaccinazione obligatoria. 10 p., 8vo. Roma, 1891. Direzione della Sanità Publica. - Regolamento sul meretricio nell'interesse dell'ordine pubblico, della salute publica el del buon costume Approvato condecreto. Ministeriale, 27 Octobre, 1891. Roma, 1891. Ministero dell' Interno. - Su di un apparecchio destinato allo studio della permeabilità all'acqua dei materiali da costruzione. 8 p., f. cap. Roma, 1891. Ministero dell' Interno. ——— Sulla Filtrazione dei liquami putrescibili attraversola torba. Ministero dell' Interno. 13 p., f. cap. Roma, 1891. Russell, Dr. J. B. Census 1891. Glasgow, Old Glasgow, and its Statistical Divisions as at 5th April, 1891. Greater Glasgow as constituted by the City of Glasgow Act, 1891. 41 p. (appendix, tables and map), 8vo. Glasgow, 1891. The Author. Russell, Hon. Rollo. The Spread of Influenza, its supposed relations to Atmospheric conditions. 59 p., Svo. London, 1891. The Author. Sanitary Crusade round the World. 34 p., 8vo. London, 1890. Reprint from Building News, August 8th and 15th, 1890. W. Whitaker. Saunders, Dr. W. S. Report on the Analysis of Water from the Artesian Well in Stoney Lane, Houndsditch. 12 p., 8vo. London, W. Whitaker. 1891. Shone, Isaac. A Critique upon Mr. Mansergh's Report on the Drainage of Melbourne. London, 1891. 236 p., 8vo. The Author. Sonsino, Dr. Pospero. The principal and most efficacious means of preventing the spread of Entozoal affections in man. 8 p., 4mo. Reprint from Lancet, August 22nd and 29th, 1891. The Author. Symons, G. J. Symons's British Rainfall, 1888-89-90. 203, 178, The Author. and 206 pp., and Tables. 8vo. London. Teale, T. Pridgen. Dangers to Health. 172 p., 8vo. Plates. The Author. London, 1883. Thompson, Gilbert. On Sanitation in Health Resorts. 5 p., 8vo. Reprinted from Transactions of the Royal Scottish Society of The Author. Arts. Glasgow, 1890. Thompson Sir II. Modern Cremation: Its History and Practice. 163 p., Svo. London, 1891. The Author. Thresh, Dr. John C. The Housing of the Working Classes in the Chelmsford and Maldon Rural Sanitary Districts. 24 p., 8vo. The Author. Chelmsford, 1891.

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of War for the fiscal year ending June 30th, 1890. 115 p., 8vo. Washington, 1890. The Surgeon-General U. S. Army.

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Whitaker, W., and A. H. Green. Preliminary Report on the possibility of obtaining a Supply of Water for London within the Thames Basin. 20 p., Svo. London, 1891. The Author.

MEETINGS FOR 1892.

103

JANUARY.

- 4 M. Exhibition Committee, 5 p.m.
- 6 W. Lecture to Sanitary Officers, Derby,
- 13 W. Finance Committee, 4 p.m.
- 13 W. Council Meeting, 5 p.m. 13 W. Lecture to Sanitary Officers, Derby, 3 p.m.
- 20 W. Lecture to Sanitary Officers, Derby, 3 p.m.
- 20 W. Lecture at Carpenters' Hall, 8 p.m.
- 25 M. Museum Lecture and Library Committee, 5 p.m.
- 27 W. Lecture at Carpenters' Hall, 8 p.m. 27 W. Lecture to Sanitary Officers, Derby, 12 S.
- 29 F. Lecture to Sanitary Officers, 8 p.m.

FEBRUARY.

- 1 M. Exhibition Committee, 5 p.m.
- 2 Tu. Lecture to Sanitary Officers, 8 p.m.
- 3 W. Lecture at Carpenters' Hall, 8 p.m. 3 W. Lecture to Sanitary Officers, Derby,
- 5 F. Lecture to Sanitary Officers, 8 p.m.
- 10 W. Finance Committee, 4 p.m.
- 10 W. Council Meeting, 5 p.m.
- 10 W. Sessional Meeting, 8 p.m.
- 10 W. Lecture to Sanitary Officers, Derby, 3 p.m.
- 10 W. Lecture at Carpenters' Hall, 8 p.m. 12 F. Lecture to Sanitary Officers, 8 p.m.
- 17 W. Lecture to Sanitary Officers, Derby,
- 3 p.m. 17 W. Lecture at Carpenters' Hall, 8 p.m.
- 19 F. Lecture to Sanitary Officers, 8 p.m. 22 M. Museum Lecture and Library Com-
- mittee, 5 p.m. 23 Tu. Lecture to Sanitary Officers, 8 p.m.
- 24 W. Lecture to Sanitary Officers, Derby, 3 p.m.
- 24 W. Lecture at Carpenters' Hall, 8 p.m. 26 F. Lecture to Sanitary Officers, 8 p.m.
- 26 F. Examination Committee, 5 p.m.

MARCH.

- 2 W. Lecture to Sanitary Officers, Derby,
- 3. p.m.
- 2 W. Lecture at Carpenters' Hall, 8 p.m.
- 4 F. Lecture to Sanitary Officers, 8 p.m. 31 Th. Examination Committee, 5 p.m.

MARCH—(Continued.)

- 4 E. Examination for Inspectors of
- 5 S. Nuisances, Bristol.
- 5 S. Lecture to Sanitary Officers, Wakefield, 3 p.m.
- 7 M. Exhibition Committee, 5 p.m.
- 8 Tu. Lecture to Sanitary Officers, 8 p.m.
- 9 W. Finance Committee, 4 p.m.
- 9 W. Council Meeting, 5 p.m.
- 9 W. Sessional Meeting, 8 p.m.
- 9 W. Lecture to Sanitary Officers, Derby, 3 p.m.
- 9 W. Lecture at Carpenters' Hall, 8 p.m.
- 11 F. Lecture to Sanitary Officers, 8 p.m. 12 S. Lecture to Sanitary Officers, Wake-
- field, 3 p.m.
- 12 S. Lecture to Sanitary Officers, Cardiff,
- 15 Tu. Ordinary General Meeting, 4 p.m.
- 15 Tu. Lecture to Sanitary Officers, 8 p.m.
- 16 W. Lecture to Sanitary Officers, Derby,
- 16 W. Lecture at Carpenters' Hall, 8 p.m.
- 17 Th. Builders' Examination Committee, 4.30 p.m.
- Lecture to Sanitary Officers, 8 p.m. Lecture to Sanitary Officers, Wake-19 S.
- field, 3 p.m.
- 19 S. Lecture to Sanitary Officers, Cardiff, 3 p.m.
- 22 Tu. Lecture on Domestic Hygiene, 3 p.m.
- 22 Tu. Lecture to Sanitary Officers, 8 p m.
- 23 W. Lecture to Sanitary Officers, Derby, 3 p.m.
- 25 F. Lecture on Domestic Hygiene, 3 p.m.
- Examination in Practical Sanita-25 F. tion and in Building so far as it
- relates to Sanitary Construction, at Carpenters' Hall.
- 26 S. Lecture to Sanitary Officers, Wakefield, 3 p.m.
- 26 S. Lecture to Sanitary Officers, Cardiff, 3 p.m.
- Lecture to Sanitary Officers, New-
- castle, 7 p.m. 28 M. Museum Lecture and Library Com-
- mittee, 5 p.m. 1 Tu, Lecture to Sanitary Officers, 8 p.m. 29 Tu. Lecture on Domestic Hygiene, 3 թ.ա.
 - 30 W. Lecture to Sanitary Officers, Derby 3 p.m.

NOVEMBER.

1 Tu. Lecture to Sanitary Officers, 8 p.m.

MAY-(Continued.) APRIL. 1 F. Lecture on Domestic Hygiene, 111 W. Finance Committee, 4 p.m. 3 p.m. 2 S. Lecture to Sanitary Officers, Wake- 14 S. Lecture to Sanitary Officers, Wakefield, 3 p.m. field, 3 p.m. 2 S. Lecture to Sanitary Officers, New- 14 S. Lecture to Sanitary Officers, Newcastle, 7 p.m. castle, 7 p.m. 2 S. Lecture to Sanitary Officers, Cardiff, 14 S. Lecture to Sanitary Officers, Cardiff. 3 p.m. 2 S. Lecture to Sanitary Officers, Nor- 14 S. Lecture to Sanitary Officers, Norwich, 2 p.m. 4 M. Exhibition Committee, 5 p.m. wich, 2.30 p.m. 21 S. Lecture to Sanitary Officers, Wake-8 F. Examination for Inspectors of 9 S. Nuisances, London. 21 S. Lecture to Sanitary Officers, New-9 S. Lecture to Sanitary Officers, Wakefield, 3 p.m. castle, 7 p.m. 21 S. Lecture to Sanitary Officers, Cardiff, 9 S. Lecture to Sanitary Officers, New 3 p.m. 21 S. Lecture to Sanitary Officers, Norcastle, 7 p.m. 9 S. Lecture to Sanitary Officers, Cardiff wich, 2.30 p.m. 23 M. Museum Lecture and Library Com-3 p.m. 9 S. Lecture to Sanitary Officers, Nor mittee, 5 p.m. wich, 2.30 p.m. 13 W. Finance Committee, 4 p.m. 28 S. Lecture to Sanitary Officers, Wakefield, 3 p.m. Lecture to Sanitary Officers, New-13 W. Council Meeting, 5 p.m. 15 F. Good Friday. castle, 7 p.m. 16 S. Lecture to Sanitary Officers, New- 28 S. Lecture to Sanitary Officers, Cardiff, castle, 7 p.m. 18 M. Easter Monday. 23 S. Lecture to Sanitary Officers, Wake-28 S. Lecture to Sanitary Officers, Norwich, 2.30 p.m. field, 3 p.m. 23 S. Lecture to Sanitary Officers, New-castle, 7 p.m. 30 M. Exhibition Committee, 5 p.m. 23 S. Lecture to Sanitary Officers, Cardiff, JUNE. 23 S. Lecture to Sanitary Officers, Nor-4 S. Lecture to Sanitary Officers, Cardiff, wich, 2.80 p.m. 3 p.m. 25 M. Museum Lecture and Library Com-4 S. Lecture to Sanitary Officers, Newmittee 5 p.m. castle, 7 p.m. 6 M. Whit Monday. 8 W. Finance Committee, 4 p.m. 28 Th.) Examination for Inspectors of 29 F. Muisances, Derby. 30 S. Lecture to Sanitary Officers, Wake-8 W. Council Meeting, 5 p.m. field, 3 p.m. 10 F. Examination Committee, 5 p.m. 30 S. Lecture to Sanitary Officers, Cardiff, 10 F. Examination for Inspectors of 11 S. Nuisances, Wakefield. 3 p.m. Lecture to Sanitary Officers, New-11 S. Lecture to Sanitary Officers, Wakecastle, 7 p.m. field, 3 p.m. 80 S. Lecture to Sanitary Officers, Nor-11 S. Lecture to Sanitary Officers, Cardiff, wich, 2.30 p.m. 3 p.m. 11 S. Lecture to Sanitary Officers, Newcastle, 7 p.m. 11 S. Lecture to Sanitary Officers, Nor-MAY. 2 M. Exhibition Committee, 5 p.m. wich, 2.30 p.m. 7 S. Lecture to Sanitary Officers, Wake- 17 F. Examination for Surveyors, Lonfield, 3 p.m. 18 S. don. Lecture to Sanitary Officers, New- 18 S. Lecture to Sanitary Officers, Cardiff, castle, 7 p.m. 3 p.m. Lecture to Sanitary Officers, Cardiff, 18 S. Lecture to Sanitary Officers, Newcastle, 7 p.m. 7 S. Lecture to Sanitary Officers, Nor- 18 S. Lecture to Sanitary Officers, Norwich, 2.30 p.m. wich, 2.30 p.m.

JUNE—(Continued.) 24 F.) Examination for Inspectors of Nuisances, Newcastle-on-Tyne. 25 S. Lecture to Sanitary Officers, Norwich, 2.30 p.m. 27 M. Museum Lecture and Library Committee, 5 p.m.
JUIY.
 2 S. Lecture to Sanitary Officers, Norwich, 2:30 p.m. 4 M. Exhibition Committee, 5 p.m. 5 F. Examination for Inspectors of National Conference of Conference Conference
9 S. Muisances, Cardiff. 13 W. Finance Committee, 4 p.m.
13 W. Council Meeting, 5 p.m.
15 F.) Examination for Inspectors of 16 S. Nuisances, Norwich.
16 S. Nuisances, Norwich.
18 M. Congress and Editing Committee,
5 p.m.
25 M. Museum Lecture and Library Committee, 5 p.m.
SEPTEMBER.
12thCongress and Exhibition opens at Portsmouth.
OCTOBER.
3 M. Exhibition Committee, 5 p.m.
4 Tu. Lecture to Sanitary Officers, 8 p.m.
7 F. ,, ,, ,,
11 Tu. " " " " " " " " " " " " " " " " " " "
12 W. Finance Committee, 4 p.m.
12 W. Council Meeting, 5 p.m.
14 F. Lecture to Sanitary Officers, 8 p.m. 17 M. Congress and Editing Committee,
5 p.m.
18 Tu. Lecture to Sanitary Officers, 8 p.m.
01 L
24 M. Museum Lecture and Library Com-
mittee, 5 p.m.
25 Tu. Lecture to Sanitary Officers, 8 p.m.

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wcastle-on-Tyne. itary Officers, Nor-7 M. Exhibition Committee, 5 p.m. 8 Tu. Lecture to Sanitary Officers, 8 p.m. re and Library Com-9 W. Finance Committee, 4 p.m. 9 W. Council Meeting, 5 p.m. 11 F. Lecture to Sanitary Officers, 8 p.m. nitary Officers, Nor- 18 F. Lecture to Sanitary Officers, 8 p.m. 18 F. Lecture at Carpenters' Hall, 8 p.m. nmittee, 5 p.m. 22 Tu. Lecture to Sanitary Officers, 8 p.m. 23 W. Lecture at Carpenters' Hall, 8 p.m. for Inspectors of 25 F. Examination Committee, 5 p.m. ittee, 4 p.m. 25 F. Lecture to Sanitary Officers, 8 p.m. g, 5 p.m. 25 F. Lecture at Carpenters' Hall, 8 p.m. for Inspectors of 28 M. Museum Lecture and Library Comrwich. Editing Committee, 30 W. Lecture at Carpenters' Hall, 8 p.m. re and Library Com-DECEMBER. BER. 2 F. Lecture at Carpenters' Hall, 8 p.m. Exhibition opens at 2 F. | Examination for Inspectors of outh. 3 S. | Nuisances, London. 5 M. Exhibition Committee, 5 p.m. 7 W. Lecture at Carpenters' Hall, 8 p.m. [Examination in Practical Sanitation and in Building so far as it nmittee, 5 p.m. itary Officers, 8 p.m. 10 S. relates to Sanitary Construction, at Carpenters' Hall. ittee, 4 p.m. 14 W. Pinance Committee, 4 p.m. g, 5 p.ni. g, 5 p.m. itary Officers, 8 p.m. 14 W. Council Meeting, 5 p.m. 14 W. Sessional Meeting, 8 p.m. Editing Committee, 16 F. | Examination for Inspectors of 17 S. | Nuisances, Liverpool. nitary Officers, 8 p.m. 10 M. Museum Lecture and Library Committee, 5 p.m.

Note.—The next Congress and Exhibition will be held at Portsmouth, commencing September 12th.

LIST OF HON. FELLOWS, FELLOWS, MEMBERS, AND ASSOCIATES.

Additions and Corrections to December 31st, 1891.

Hon. Fellows, 27; Fellows, 154; Members, 450; Associates, 447.—Total, 1078.

HONORARY FELLOWS.

Date of Election. AUSTRIA-HUNGARY.
1890. June. von Gruber, Prof. Franz Ritter, 1, Tiefer Graben 3,

Vienna.
1890. June. Fodor, Dr., Professor of Hygiene, Buda-Pesth.

BELGIUM.

1890. June. Putzeys, Dr. Felix, Professor of Hygiene at the University of Liège.

EGYPT.

1890. Dec. GREENE, Dr. H. R., Pasha, Chief of the Sanitary Department, Cairo.

FRANCE.

1890. June. BROUARDEL, Dr. Paul, Prof. and Dean of the Faculty of Medicine, Paris.

1890. June. Cornil, Dr. V., Senator, 19, Rue St. Guillaume, Paris. 1890. June. Pasteur, Prof. Louis, 25, Rue Dutot, Paris.

1890. June. DE PIÉTRA SANTA, Dr. Prosper, Hon Sec. of the French Society of Hygiene, 30, Rue du Drayon, Paris.

1890. June. VALIN, Dr. Emile, Professor of Hygiene, Director of the School of the Military Sanitary Service, Lyons.

1890. June. MARIE DAYY, Dr. H., Hon. President of the French Society of Hygiene.

GERMANY.

1890. June. Hobrecht, Dr., Engineer, Berlin.

1890. June. von Hofmann, Prof. A. W., Professor of Chemistry, Berlin.

1890. June. Koch, Dr., Director of the Hygienic Institute, Berlin.

1890. June. Pettenkofen, Dr., Professor of Hygiene at the University of Munich.

1890. June. Roth, Prof. Dr. W., Surgeon-General, 6, Kaizer Wilhelm Platz, Dresden.

1890. June. Virchow, Dr. Rudolph, Professor of Pathology, Berlin.

HOLLAND.

1890. June. DE MEYER, Dr. van Overbeek, Professor of Hygiene at the State University of Utrecht, Netherlands.

ITALY.

1890. June. Betocchi, Comte. Alessandro, Prof., Civil Engineer, Ministry of Public Works, Rome.

1890. June. Corradi, Prof. Alfonso, Rector of the University of Pavia. 1890. June. Pacchiotti, Dr. Giacinto, Professor of Hygicie, Turin.

ROUMANIA.

1890. June. Felix, Dr. J., Professor of Hygiene, Bucharest.

RUSSIA.

1890. June. Suzon, Comte de, Architect-in-chief, Ligue de Cadets 21, St. Petersburgh.

SWITZERLAND.

1890. June. Guillaume, Dr., Director of the Federal Bureau of Statistics, Berne.

TURKEY.

1890. June. Zoenos, A., Pasha, Professor at the School of Medicine, Director of the Bacteriological Institute, Secretary-General of the Administration of Public Medicine and Hygiene, Constantinople.

UNITED STATES.

1890. June. BILLINGS, Dr. John S., Washington, D.C.

1890. June. Bowditch, Dr. Henry J., Boston.

1890. June. WALCOTT, Dr. Henry P., Cambridge, Massachusetts.

FELLOWS (FELLOW SAN, INST.)

† Marked thus have passed the Examination of the Institute for Local Surveyors.

1889. Dec. Abel, Sir Frederick, K.C.B., F.R.S., Imperial Institute, Imperial Institute Road, S.W.; and 40, Cadogan Place, S.W.

1891. Dec. Acland, Sir Henry W., K.C.B., M.D., D.C.L., F.R.S., Broad Street, Oxford.

1888. Oct. Adams, G. E. D'Arcy, M.D., D.P.H.CAMB., F.G.S., 1, Clifton Gardens, Maida Vale, W.

1888. Oct. AITKEN, PROF. SIR William, M.D., F.R.S., Woolston, near Southampton.

1888. Oct. ALBANY, H.R.H. The Duchess of, Claremont, Esher.

1888 Oct. Angell, Lewis, M.Inst.c.e., F.K.C.Lond., Town Hall, Stratford, E.

1890. Feb. Anningson, Bushell, M.A., M.D., Cambridge. 1888. Oct. Archer, John A., 79, Larkhall Rise, S.W.

1889. Dec. Armistead, William, M.B., M.O.H., Shelford, Cambridge.

1889, De	e. Banny, Charles, P.S.A., 1, Victoria Street, S. W.
1888. De	
1888. Oc	t. Bell, Major C. W., J.P., D.L., Yewhurst, East Grin-
	stead, Sussen.
1888. Oe	
1889. De	e. Blomfield, Sir A. W., M.A., P.R.I.B.A., 6 Montague
1888. Oc	
1888. Oe	
1000 T	Liverpool,
1890, Jai	Clifford Street, Bond Street, W.
1890. Jar	1. Brett, A. T., M.D., M.O.H., Walford House, Walford.
1888, Oct	BRIGHTEN, W. G., 108, Fenchurch Street, E.C.
1889. Dec	v. Brock, J. H. E., M.D., B.SC.LOND., 115, Adelaide Road, South Hampstead,
1888. Oct	BROWN, Harry, University College, Gower Street, W.C.
1888. Oct	
	M.O.H., 16, Royal Terrace, Weymouth.
1888, Oct	. BURBERY, J. Stone, Trent House, West Cowes, I. of W.
1888. Oct	Burdett, Henry C., F.S.S., F.L.S., The Lodge, Porchester
	Square, W.
1888. Oct	Burgess, Peter, M.A., M.B., Driffield, Forkshire
1888. Oct	. Cambridge, H.R.H. the Duke of, K.O., Gloucester
1000 0	House, Park Lane, W.
1888. Oct	
1888. Oct	
1888. Oct	Heath Lodge, Morland Park, Croydon.
10001 000	. Carter, R. Brudenell, F.R.C.S., 27, Queen Anne Street, Cavendish Square, W.
1888, Aug	Cassal, Charles E., F.I.C., F.C.S., Town Hall, Kensington.
· ·	W., (Vestry Hall, Mount Street, Grosvenor Square,
	W.), (Brenne House, Wandsworth Common & W.)
1890. May	CATES, Arthur, F.R.I.B.A., 7, Whitehall Yard, S. W.
1888. Oct.	. CLARK, F. Le Gros, F.R.S., The Thorns, Sevenoaks, Kent.
1888. Oct.	COLLINS, H. H., F.R.I.B.A., 61, Old Broad Street, E.C.:
1000 D	ana 9, Randolph Road, W.
1889. Dec	A THE PARTY OF THE
1999 Oct	rerrace, Regent's Park, N. W.
1888, Oct.	, , , , , , , , , , , , , , , , , , , ,
1888. Aug	19, Savile Row, W.
1888. Oct.	Crawford, Sir Thomas, M.D., K.C.B., 5, St. John's Park.
1888. Oct.	Biackheath,
1000, 001,	Cutler, Thomas William, F.R.I.B.A., 5, Queen Square, Bloomsbury.
1888. Oct.	Davey, Alexander George, M.D., L.R.C.P., M.R.C.S., 9,
	Belvedere Street, Ryde, Isle of Wight.
	- y y y vy vy mi

1891. Mar. DE COURCY MEADE, Thomas, M.INST.C.E., 1, Park Villas. The Park, Highwate, N. 1888. Oct. DERBY, RT. HON. EARL OF, D.C.L., LL.D., F.R.S., 33, St. James' Square, S.W. Doulton, Sir Henry, Lambeth, S.W. 1888. Oct. Dowson, A., 3, Gt. Queen Street, Westminster. 1890. Feb. 1888. Oct. DOYLE, Patrick, C.E., F.G.S., Indian Engineering, Spence's Hotel, Calcutta. 1888. Aug. DUDTIELD, T. Orme, M.D., L.R.C.P., M.R.C.S., 14. Ashburn Place, Cromwell Road, S.W. 1888. Oct. DYKE, T. J., F.R.C.S., The Hollies, Merthur Tudfil. 1888. Oct. EATON, John, M.D., Montreal House, Cleator Moor, Cumberland. 1888. Oct. Ellis, W. Horton, F.R.MET.SOC., Hartwell House, Exeter. EVANS, SIR T. W., F.R.G.S., Allestree Hall, Derby. 1888. Oct. 1890. Dec. EWART, Joseph, M.D., F.R.C.P., J.P., Montpelier House, Montpelier Terrace, Brighton. 1888. Oct. FAYRER, SIR Joseph, K.C.S.I., M.D., F.R.C.P., F.R.C.S., LL.D., F.R.S., 53, Wimpole Street, W. 1888. Oct. Field, Basil, B.A., 36, Lincoln's Inn Fields, W.C. FIELD, Rogers, D.A., M.INST.C.E., 7, Victoria Street, 1888. Aug. Westminster, S.W. 1888. Oct. FLOWER, MAJOR Lamorock, 48, Holland Road, W. 1888. Nov. FORTESCUE, RT. HON. EARL, 48, Grosvenor Gardens, S. W., (Castle Hill, South Molton, Devon). GALTON, SIR Douglas, K.C.B., D.C.L., LL.D., F.R.S., 12, 1888. Aug. Chester Street, Grosvenor Place, S.W. Gowens, William Richard, M.B., 50, Queen Anne St., W. 1888. Oct. 1888. Oct. GRIMSHAW, Thomas Wrigley, M.D., Priorsland, Carrickmines, Dublin. 1888. Oct. HARKER, J., M.D., J.P., Hazel Grove, Carnforth, Lanc. 1890. May. HARRIS, Alfred E., L.R.C.P., L.R.C.S., M.O.H., Health Offices, Sunderland, (Brookside Villa, Sunderland). 1888. Oct. HARRIS, Thomas, F.R.I.B.A., 6, Southampton Street, Bloomsbury Square, W.C. 1890. Jan. HARRISON, C., M.D., D.P.H.CAMB., Newland, Lincoln. HART, Ernest, 38, Wimpole Street, W. 1888. Oct. 1891. Mar. HASTINGS, George Woodyatt, M.P., Barnard's Green House, near Malvern. 1888. Oct. HAVILAND, A., M.R.C.S., Douglas, Isle of Man. 1890. June. Hehir, Patrick, M.D., F.R.O.S., D.P.H., Hyderabad, Deccan, India. 1890. Jan. HILL, Alfred, M.D., M.R.C.S., L.S.A., The Council House, Birmingham. 1888. Oct. HILL, M. Berkeley, M.B., F.R.C.S., 66, Wimpole Street,

HIME, Thomas Whiteside, A.B., M.B., L.R.C.S., 54, Horton

Hodson, George, M.Inst.c.E., F.G.S., Abbey Buildings,

Princes Street, Westminster, (Loughborough).

Road, Bradford.

1888. Dec.

1888. Oct.

110

1888. Aug.

NORTHUMBERLAND, HIS GRACE THE DUKE OF, K.G.,

1889. Dec.	Hope, E. W., Municipal Offices, Liverpool.
1888. Oct.	Humphry, Sir G. M., M.D., F.R.S., Cambridge.
1889. Dec.	HUNTER, SIR William Guyer, K.C.M.O., M.P., M.D.,
	r.R.c.r., 21, Norfolk Crescent, Hyde Park, 11
1890. Jan.	ILIFFE, William, M.R.C.S., 41, Osmaston Street, Derby.
1888. Oct.	JONES, LIEUT COL. A. S., U. C., ASSOC.M.INST.C.E.,
	Culverside, Carshalton, Surrey,
1888. Aug.	Judge, Mark H., A.R.I.B.A., 15, Connaught Square, W.
1888. Oct.	Kelly, Charles, M.D., F.R.C.P., Ellesmere, Gratwicke
1000. 000.	Road, Worthing.
1888, Dec.	KINGDON, J. A., Grocer's Hall, E.C.
1888. Oct.	LATHAM, Baldwin, M.Inst.c.e., F.R.Met.soc., F.G.S.,
10001 4011	Y.S.S., 13, Victoria Street, S.W., (Nantwich House,
	Park Hill Rise, Croydon).
1888. Oct.	LAW, Henry, M. INST. C.E., F. R. MET. SOC., 17, Victoria
1000. 00.	Street, S.W., (245, Vauxhall Bridge Road).
1889. Dec.	LAWRENCE, SIR Trevor, BART., M.P., 57, Prince's Gate,
1000. 1766.	S.W.
1888, Oct.	LAWSON, INSPECTOR-GENERAL R., LL.D., F.S.S., 20,
1000. Ott.	Lansdowne Road, Notting Hill.
1888. Oct.	LEAF, Charles J., F.L.S., F.S.A., 6, Sussew Place, Regent's
1888. 001.	Park, N.W.
1888. Dec.	LEAF, W., LITT.DOC., 6, Sussew Place, Regent's Park,
1000. Dec.	N.W.
1999 Aug	Lewis, Prof. T. Hayter, F.S.A., F.R.I.B.A., 12, Kensing-
1888. Aug.	ton Garden Square, S.W.
1888. Oct.	Lavesey, J., M.Inst.c.E., 2, Victoria Mansions, Victoria
1000. 001.	Street, Westminster, S.W.
1888. Dec.	LONGSTAFF, G. B., M.D., M.A., D.P.H., Southfield Grange,
1000. Dec.	Wandsworth, S. W.
1888. Dec.	Lubbock, Rt. Hon. Sir John, Bart., M.P., D.C.L., F.R.S.,
1803. Dec.	Lombard Street, E.C.
1888. Oct.	Mackey, John Alexander Dixie, B.A.Oxon., 1, West-
1555. Ott.	bourne Terrace, W.
1000 Oak	MANSERGH, James, M.INST.C.E., 5, Victoria Street, S.W.
1888. Oct.	Manager II T server on The Rivelee Codsult.
1889. Dec.	MARTEN, H. J., M.INST.C.E., The Birches, Codsall,
1000 Oak	Wolverhampton.
1888. Oct.	MEATH, RT. HON. EARL OF, 83, Lancaster Gate, Hyde
1000 The	Park,
1888. Dec.	MICHAEL, W. H., Q.C., 45, Bedford Square, W. C.,
	(Foxyrove Road, Beckenham, Kent), (King's Bench
1000 Tax	Walk, Temple).
1890. Jan.	MURPHY, Shirley F., M.R.C.S., 41, Queen Anne Street,
1000 T	W. Naverson Arthur up up as rat DPU MOU.
1890. June.	
1000 D	Town Hall, Brighton, (15, College Road, Brighton.)
1888. Dec.	NIGHTINGALE, Miss F., 10, South Street, Grosvenor
1000 35	Square, W.
1890. May.	North, Samuel W., M.R.C.S., F.G.S., M.O.H., Micklegate,

D.C.L., LL.D., 2, Grosvenor Place, S. W. 1890. Nov. Notter, Professor J. Lane, M.A., M.D., D.P.H., West Cliffe, Woolston, Southampton. OHREN, Magnus, ASSOC, M. INST. C. E., F.C.S., Lower 1888. Oct. Sydenham. OLLARD, J. F., The Manor House, North Runcton, 1888. Oct. King's Lynn. OLLAND, William Ludlam, Musticott House, Walsoken, 1888. Oct. Wisheach, Norfolk. PAGET, Charles Edward, M.R.C.S., D.P.H., M.O.H., Town 1889. Nov. Hall, Salford. Paget, J., J.P., Stuffynwood, Mansfield.
Parkes, Charles Henry, Netherfield, Weybridge. 1888. Oct. 1888, Aug. PARKES, Louis Coltman, M.D., M.R.C.S., D.P.H., 61, 1888. Oct. Cadogan Square, S.W. 1888. Oct. Pegos, J. Wallace, Assoc.M.Inst.c.e., 9, Welbeck Mansions, Cadogan Terrace, S.W., (21, Queen Anne's Gate, S.W.S. 1888. Oct. Plumbe, Rowland, F.R.I.B.A., 13, Fitzroy Square, W. Poore, George Vivian, M.D., F.R.O.P., 30, Wimpole 1888. Aug. Street, W. POWELL, Francis Sharp, M.P., 1, Cambridge Square, 1890. Jan. W., (Horton Old Hall, Bradford). PRITCHARD, E., M.INST.C.E., F.O.S., 2, Storey's Gate, 1888. Oct. S. W., (37, Waterloo Street, Birmingham). 1888. Oct. RAWLINSON, SIR Robert, K.C.B., M.INST.C.E., 11, The Boltons, Brompton, S.W. REDWOOD, T. Hall, M.D., The Lawn, Rhymney. 1890. Feb. Reid, George, M.D., D.P.H., County Medical Officer of 1891. Oct. Health, Stafford. REYNOLDS, PROF. J. Russell, M.D., F.R.C.P., F.R.S., 38, 1888. Oct. Grosvenor Street, W. 1888. Nov. RICHARDSON, Benjamin Ward, M.D., LL.D., F.R.S., 25, Manchester Square, W. 1888. Oct. RICHARDSON, J., M.INST.C.E., Methley Park, Leeds. RIPON, MOST HON. MARQUESS OF, K.G., D.C.L., F.R.S., 1890. Jan. 9, Chelsca Embankment, S.W. Robins, Edward Cookworthy, F.S.A., F.R.I.B.A., 46, 1888. Oct. Berners Street, W. Robinson, Prof. Henry, M.Inst.c.e., 13, Victoria 1888. Oct. Street, S. W., (54, Boundary Road, N. W.). 1888. Oct. Russell, Hon. F. A. Rollo., F.R.MET.SOC., Pembroke Lodge, Richmond Park. 1888. Oct. Russell, Jas. A., M.A., F.R.C.P. EDIN., M.B., B.SC., F.R.S.E., Woodville, Canaan Lane, Edinburgh. 1890. Jan. Russell, J. B., M.D., III.D., M.O.H., Glasgow. SALT, Thomas, M.P., 85, St. George's Square, S.W. 1889. Jan. SEATON, Edward Cox, M.D., F.R.C.S., The Limes, 56, 1889. Dec. North Side, Clapham Common.

		6. 11.4
1888, Oc	.+	SHAW, George, 20, King Edward Street, Newgate St., E.C.
	il.	Supported Std E. H., M.D., 11, Mancaester required "
1888. De		SMITH, James, Osborne, A.B.I.B.A., 34, Southampton
1889. No	DY.	Street, Strand, W. C., (65, Frithfield Gardens,
		Uxbridge Road, W.).
		SMITH, PROF. William Robert, M.D., F.R.S.E., D.SC.,
1888. Oc	et.	SMITH, PROP. William Mobile, Street, W.C.
		Barrister-at-Law, 74, Great Russell Street, W.C.,
		(Plumstead, Kent).
1888. Oc	et.	SNELL, H. Saxon, F.R.I.B.A., 22, Southampton Build-
		ings, W.C., and Lynden Lodge, Elmfield Road,
		Reamlen Kent.
1888, Oc	et.	STEELE, John Charles, M.D., Guy's Hospital, S.E.
1889. M		Committee Honey II., M.P., Allente House, Committee
1888. O		STRONG, Henry John, M.D., Whitgift House, George
1000. 0		Chast Croudon
1888. O	at	SYKES, J. F. J., M.B., B.SC., D.P.H., 171, Camden Road,
1000. 0	Ct.	N.W.
1000 1		Syrong G. J., v.n.s., 62, Camden Square, N.W.
1888. A		TAYLOR, J. Stopford, M.D., M.O.H., 6, Grove Park,
1889. D	ec.	Linned
- 000 T		Liverpool. TAYLOR, John W., M.D., D.SC., J.P., M.O.H., Examiner
1889. D	ec.	in Medical Jurisprudence, and for the final B.Sc.
		in the department of Public Health, University of
		in the department of Lane Searborough
		Edinburgh, Rothesay House, Scarborough.
1888. O	ct.	TEMPLE, RIGHT REV. Frederick, D.D., LORD BISHOP OF
		LONDON, The Palace, Fulham.
1888. O	ct.	THOMPSON, John, M.D., F.R.C.S., J.P., Lynton House,
		Bideford.
1889. D	ec.	THOMPSON, SIR Henry, M.B., 35, Wimpole Street, W.
1888. O		Tranks R. Thorne, M.B., 45, Inverness Terrace, 11.
1888. O		TURBERVILL, Col. T. Picton, Ewenny Priory, Bridgend,
		Glamoraan.
1888. O	et.	Turner, Ernest, F.R.I.B.A., 246, Regent Street, W.
1888. A		Twining, Thomas, Perryn House, Twickenham.
1889. F	ep.	TYNDALL, Professor John, LL.D., D.C.L., F.R.S., Hind
TOOP, T	7 D.	Head House, Shotter Mill, near Petersfield.
1891. N	Zov	VACHER, Francis, F.R.C.S., Birkenhead.
1889. I		Walford, Edward, M.D., D.P.H.CAMB., M.R.C.S., M.O.H.,
1999. T	Jec.	Town Hall, Cardiff.
1000 0	1.4	Waring, Col. G. E., Jun., M.Inst.C.E., Newport, Rhode
1888. C	cı.	Island, U. S. America.
4000 0		WATERHOUSE, Alfred, R.A., 20, New Cavendish St., W.
1888. C		WATERHOUSE, Affred, R.A., 20, Act out of Grosvenor
1888. A	Lug.	WESTMINSTER, HIS GRACE THE DUKE OF, K.G., Grosvenor
_		House, W.
1888. C	et.	WHITELEGGE, Benjamin Arthur, M.D., B.SC., D.P.H.CAMB.
		Wakefield.
1888. C	et.	WILLIAMS, Dawson, M.D., 25, Old Burlington Street, W.
1888. C		WILSON, George, M.A., M.D., F.R.S.E., 7, Avon Place,
		Warwick.
1889. J	an.	WIN, H. A., 3, King's Bench Walk, Temple, E.C.

ORDINARY MEMBERS (MEM. SAN. INST.)

† Marked thus have passed the Examination of the Institute for Local Surveyors.

I Marked thus have passed the Examination of the Institute for Inspectors of Nulsances.

1890. May.	ADAMS, Frederick	Edward,	M.D., D.P.H.,	Town	Hall,
•	Bolton.	•	•		•

1889. Mar. Adams, James, M.D., M.O.H., Springwell, Barnes, Surrey. Adams, Professor Henry, M.Inst.C.E., F.S.I., 60, Queen Victoria Street, E.C.

1889. Mar. Adkins, George, L.R.C.P.LOND., D.P.H., M.O.H., Yealmpton, Plympton, Devon.

1888. Dec. Airy, Hubert, M.A., M.D., Local Government Board, S. W.

1889. Feb. Aldwinckle, Thomas William, F.R.I.B.A.

1888. Oct. Alexander, W. C., Aubrey House, Campden Hill, W.

1889. Apr. Allerey, Charles Henry, M.D., F.R.C.S., D.P.H., Plas Newydd, Princes Road, St. Leonards-on-Sea.

1888. Oct. Ames, H. St. Vincent, M.A., Cote House, Westbury-on-Trym, Bristol.

1888. Oct. Anderson, Geo., c.E., 35a, Great George Street, West-minster, S. W.

1889. Jan. †Anderson, John Reid, The Cottage, Gibson's Hill, Norwood, S.E.

1890. Dec. Anderson, John, Assoc.M.Inst.c.e., Town Hall, Montrose, N.B.

1888. Oct. Andresen, August F., Priory Cottage, Mill Lane, West Hampstead.

1888. Oct. Andrew, Capt. C. W., 286, Kennington Park Road, S.E.

1889. Mar. Andrews, G. R., Surveyor, Johannesburg, South Africa. 1888. Oct. Andrews, Jonathan, 10a, Mount Street, Berkeley

Square, W.
1890. Apr. Angell, A. Torrington, 2, Drayton Gardens, S.W.

1888. Oct. †Angell, John A., Assoc.M.Inst.c.e., Borough Engineers'
Office, West Ham, E.

1889. Nov. Anson, Frederick Henry, M.A., Assoc.M.Inst.c.e., 15, Dean's Yard, Westminster, S. W.

1891. Oct. Armstrong, Henry E., M.R.C.S., L.S.A., M.O.H., The Health Department, Town Hall, Newcastle-on-Type.

1888. Oct. Armstrong, Prof. H. E., Ph.D., F.R.S., 55, Granville Park, Lewisham, S.E.

1890. Oct. Aspinall, Miles, Borough Engineer and Surveyor's Office, Worthing.

1891. Nov. ATKINS, Alfred, A.M.INST.C.E., F.R.I.B.A., Wanganui, New Zealand.

1888. Oct. Aumonier, F., 110, High Street, Manchester Square, W. 1888. Oct. Baker, Sir Benjamin, K.C.M.G., Ll.D., M.Inst.C.E., 2, Queen's Square Place. Westminster.

II

1888. Dec.

1888. Oct.

1888. Oct.

Box, M. H.

Baker, R., Ballingdon House, Green Lanes, N. 1888. Oct. BARTON, John Isaac, Ryde, (Ventuor), Isle of Wight. 1890. May. BARWISE, Sidney, M.B., D.P.H., M.O.H., Derbyshire County 1891. July. Council, 61, Uttoxeter New Road, Derby. 1890. May. BATEMAN, James, Assistant Engineer, Natal Government Railway. BATHURST, THE RT. HON, THE EARL, 20, Grosvenor 1888. Oct. Gardens, S.W. BAUGH, Alfred C., Egerton Street, Wrexham. 1888. Oct. Bean, Alexander Thomas, 7, Victoria Street, S.W. 1888. Oct. 1888, Dec. BEARD, E. T., The Colonial College, Hollesley Bay, Suffolk. Beard, George, Thickthorn, Kenilworth. 1888. Oct. Beard, Neville, The Mount, Ashbourne. 1888. Oct. Beandmore, George Russell, Lar.C.P.LOND., M.R.C.S., 1889. Dec. L.S.A., D.P.H.CAMB., Warwick House, Upper Street, Islinuton. BECK, Marcus, M.B., 30, Wimpole Street, W. 1888. Oct. Beddoe, John, B.A., M.D., T.R.S., The Chantry, Brad 1888. Oct. ford-on-Avon. BEEVOR, Mrs. Elizabeth, 129, Harley Street, W. 1888. Oct. Bell, Thomas, L.R.C.P. LOND., Uppingham, Rutland. 1888. Dec. BENJAMIN, Horace Bernton, F.R.o.s., 28, Albemarle Street, W., (37, Upper Grosvenor Street, W.). Bennett, Hugh, M.R.C.S., Builth Wells, Brecon. 1888. Oct. 1891. Mar. Bennett, Thomas, Assoc, M. Inst. C.E., F.G.S., Turner's Hill, Cheshunt. Bernard, William Larkins, 3, St. Stephen's Chambers, 1888. Oct. Baldwin Street, Bristol. 1888. Oct. †Berrington, R. E. W., Assoc.M.Inst.c.e., Graiseley, Wolverhampton. 1888. Oct. Bickersteth, E. R., f.R.c.s., 2, Rodney St., Liverpool. 1891. Mar. BILLINGHAM, J. A. L., Surveyor, R. Engineers, 4, East Mount Road, York. Black, Surg.-Major W. G., 2, George Square, Edin-1888. Oct. burgh. 1889. Mar. Blair, William Nisbet, Assoc.M.INST.C.E., Town Hall, Bootle-cum-Linacre. BLASHILL, T., F.R.I.B.A., Superintending Architect, 1888. Oct. London County Council, Spring Gardens, S.W. 1889. Mar. Blumer, Frederick Milnes, B.A., M.B., M.O.H., Foregate Street, Stafford. Bolding, John T., 19, South Moulton Street, W. 1889. Feb. 1888. Oct. Bond, Frederick Adolphus, M.B., C.M.EDIN., D.P.H.EDIN., Hetton Lodge, Ferndale, Tunbridge Wells. BOOBBYER, Philip, M.B., M.R.C.S., M.O.H., The Guildhall, 1890. Apr. Nottingham.

BOSTOCK, II., The Oaklands, Rowley Avenue, Stafford.

Brace, W. H., M.D., 7, Queen's Gate Terrace, S.W.

Brackett, Wm., 42, London Road, and 27, High Street, 1888. Oct. Tunbridge Wells. Bradshaw, James D., B.A., M.B., M.R.C.P., M.R.C.S., 1888. Oct. 30, George Street, Hanover Square, W. 1891. July. Brada, João Francisco, L.S.A., F.C.S., F.L.S., F.O.S., D.P.H., Glen Villa, Sunbury-on-Thames, 1889. Mar. Brenner, George Reith, M.D., D.P.H., Bensham Lodge, West Croydon. 1888. Oct. Bridges, J. H., M.B., P.R.C.P., The Brambles, Wimbledon. BRIGHT, Philip, ASSOC.M.INST.C.E., 2, Newyate Street, 1891. Jan. E.C.1888. Nov. Bristowe, John Syer, M.D., F.R.S., 13, Old Burlington 1889. Apr. Brodie, John Shanks, Assoc.M.Inst.c.E., Town Hall, Whitehaven, Cumberland. 1889. Mar. BROOKE, Walter, Assoc. M. INST. C. E., Town Surveyor, Richmond, Surrey. 1889. Apr. BROOKE, William, M.D., M.O.H., Shaw, near Oldham. Brown, William Ibbs, St. Michael's Avenue and Guild-1888. Oct. hall, Northampton. 1891. Dec. Bruce, William, M.D., LL.D., M.O.H., Dingwall, Ross. 1888, Oct. BRYANT, Thomas, F.R.C.S., 65, Grosvenor Street, W. BUCKINGHAM, Edward de Vere, Architect, St. John 1891. Oct. Street, Winchester. Buckton, Mrs. 27, Ladbroke Square, W. 1888. Dec. 1891. May. Bullis, William Daniel, Surveyor, 21, Finsbury Pavement, E.C. 1891. July. Bulstrode, Herbert Timbrell, M.A., M.D., D.P.H., Metropolitan Asylums Board, South-Western Hospital, Stockwell. 1888. Dec. †Bunten, Charles, care of W. F. Watkins, 8, Park Road, East Hill, Wandsworth. 1890. Apr. Burdwood, James Watson, L.F.P.S., M.O.H., West Cottage, Bourne, Lincoln. Burmester, Miss E., 9, Park Square, W. 1888. Dec. 1890. Jan. Bunn, Alfred, F.R.I.B.A., S5, Gower Street, W.C. Burton, Samuel Hubert, F.R.C.S., M.O.H., 50, St. Giles's 1889. Apr. Street, Norwich. 1889. Jan. Burton, W. Kinninmond, Assoc.M.Inst.c.E. Professor of Sanitary Engineering, Imperial University, Tokio, Japan. 1889. Feb. †Campbell, Adam Horsburgh, Assoc. M. Inst. C.E., Borough Surveyor's Office, Stratford-on-Avon. Campbell, Charles, Queen Insurance Buildings, Church 1888. Oct. Street, Sheffield. CAMPBELL, HON. Dudley, 1, Mitre Court Buildings, 1888. Oct. Temple. 1889. Mar. Campbell, Kenneth Findlater, Assoc. M. INST. C. E., Borough Engineer, Stockton-on-Tees.

CARLINE, John, ASSOC. M. INST. C.E., Board of Works, 1888. Oct. Lewisham, S.E. 1889. Mar. Carlton, George Brody, Assoc.M.Inst.c.E., Knighton, Oak Hill Road, Beckenham. 1888. Nov. CARRITT, Ernest, 18 & 19, Great St. Helens, E.C. CHART, Robert Masters, Mitcham, Surrey. 1890. Nov. CHATTERTON, George, MAINST.C.E., 46, Queen Anne's 1888. Oct. Gate, S. W. CHATTOCK, Miss Frances C., Solihull, Birmingham. 1888, Oct. CLARKE, James Wright, S, Salcott Road, Wandsworth. 1888. Oct. CLARKSON, J. W., M.R.C.S.E., L.R.C.P.L., c/o Messes. 1888. Oct. H. S. King & Co., Pall Mall, S.W. 1890. Oct. †CLOTHIER, Samuel Thompson, Street, Somersel. COATES, C., F.R.C.P., 10, Circus, Bath. 1888. Oct. COCK, Frederick, M.D., 1, Porchester Houses, Porchester 1888. Oct. COLLINGRIDGE, W., M.A., M.D., D.P.H., Port of London 1888. Oct. Sanitary Offices, Greenwich, S.E. Collinson, John, 90, Cromwell Road, S.W. 1888. Oct. 1888. Oct. †Comber, P. F., M.INST.C.E. IRELAND, Fairy Hill, Bray, Co. Wicklow. 1888. Oct. †Cooper, C. H., Assoc.M.Inst.c.E., Local Board Offices, Wimbledon. COOPER, Francis A., ASSOC.M.INST.C.E., c/o H. F. Cooper, 1888. Oct. Nottingham and Notts Bank, Newark. 1888. Nov. Cooper, John, jun., Croydon. 1889. Jan. †Cooper, William, 32, Cheetham Street, Cheetham, Manchester. CORBETT, Joseph, 9, Albert Square, Manchester. 1888. Oct. CORKE, Cecil A., L.R.C.P., M.O.H., 72, High Street, Wem, 1891. Nov. Shronshire. CORNER, John, 543, Cuyo, Bucnos Ayres. 1891. Dec. Corsan, John R., 80, Gray's Inn Road, W.C. 1888. Oct. COURTNEY, MAJOR D. C., R.E., 22, Collingham Gardens, 1888. Oct. Kensington, S.W. COWAN, Peter Chalmers, B.SC. (EDIN.), ASSOC.M.INST.C.E., 1889. Oct. County Surveyor, Downpatrick. 1888. Oct. Cowtan, Frank, 309, Oxford Street, W. 1890. Oct. † CRAIO, G. A., Wood's Temperance Hotel, High Street, Berwick-on-Tweed. 1888. Oct. CRANBROOK, THE RT. HON. VISCOUNT, G.C.S.I., 17, Grosvenor Crescent, S.W. 1891. Mar. Crawford-Roe, William Alexander F.R.C.S.E., Surgeon-Major Indian Medical Service, Bengal. 1889. June. CREGES, Hugh Stowell, 42, Freelands Road, Bromley, Kent. 1888. Oct. †CRIMP, W. Santo, M.INST.C.E., F.G.S., London County Council, Spring Gardens. 1891. June. CRISP, James Gregory, 10, Sherborne Terrace, Chelten-

1888. Oct. Crombie, James, M.B., D.P.H.EDIN., Sideup. 1888. Oct. CROWLEY, Frederick, Ashdell, Alton, Hants. 1889. Mar. Cuff, Robert, M.B., M.R.C.S., M.O.H., 28, Huntriss Row, Scarborough. 1888. Oct. †Curwen, John F., 51, Highgate, Kendal. 1890. Mar. Danis, George Henry Roque, M.D., M.R.C.S., M.O.H., Highfields, Shanklin, I. of Wight. 1888. Oct. † DARCH, John, 74, Sarsfield Road, Balham, S.W. 1890. Oct. †Davis, Neville Brookes, Assoc. M. Inst. C.E., P.A. Surv. INST., Water Works Office, Leicester. 1888. Oct. Dawson, Charles James, Surveyor to the Local Board. Barking. DAY, Ernest, F.R.I.B.A., 5, Foregate Street, Worcester. 1888, Oct. DEBENHAM, F. G., Cheshunt Park, Herts. 1888. Oct. DE CHAUMONT, Miss Anna Kennedy Francois, Alladale, 1888. Oct. Woolston, Southampton. 1888. Oct. DE SOLDENHOFF, Richard, 12, Newport Road, Cardiff. DENNIS, Nelson F., Town Surveyor, West Cowes. 1888. Oct. 1891. Dec. DENTON, Eardley Bailey, B.A., M.INST.C.E., Civil Engineer, 9, Bridge Street, Westminster. 1889. May. DIXEY, Harry Edward, M.D., Woodyate, Great Malvern. 1891. May. Donn, Peter, Assoc. M. INST. C. E., 3, Clifton Terrace, Southend-on-Sea. 1889. Apr. Donovan, Dennis D., L.R.C.P., L.R.C.S., Superintendent Medical Officer of Health, City of Cork. DOUGLAS, George, Burstem. 1888. Oct. Doulton, James Duncan, Lambeth. 1888. Oct. 1891, Jan. Drayson, Walter B. H., 2, Newgate Street, E.C. 1890. Jan. DRUMMOND, Edward, M.D., M.R.C.S., D.P.H.CAMB., The Ivy House, Hampstead; and 3, Piazza di Spagna, Rome. 1889. Nov. Dunlop, Archibald, M.D., M.R.C.S., M.O.H., Holywood, Belfast. 1889. Apr. Eaton-Shore, George, assoc.m.inst.c.e., Borough Engineer, 190, Edlestone Road, Crewe. EBURY, RT. HON. LORD, Moor Park, Rickmansworth. 1888. Oct. 1888. Oct. Eccles, Miss Jane Helen, 3, Dean's Yard, Westminster, S.W. EDGE, Frederic James, ASSOC, M. INST.C.E., Public Offices, 1891. Feb. Cleator Moor, Cumberland. ELFORD, John, Borough Surveyor, Poole, Dorset. 1888. Oct. EMERSON, W., F.R.I.B.A., 8, The Sanctuary, S.W. 1888. Dec. English, Edgar, M.R.C.S., L.S.A., D.P.H., High Street, 1839. May. Mexborough, Rotherham. ERICHSEN, J. Eric, F.R.S., 6, Cavendish Place, W. 1889. Jan. EVERS, SURG.-MAJOR B., care of Messrs. Watson Bros., 1888. Nov. 27, Leadenhall Street, E.C. FARRER, SIR T. H., BART., 27, Bryanston Square, W. 1889. Jan. FAWCETT, William Milner, M.A., F.R.I.B.A., 1, Silver 1888. Oct.

Street, Cambridge.

1891. July. †Felkin, Howard Riley, 23, Brackley Road, Chiswick. 1888. Oct. FERNIE, C. W. B., Keythorpe, Leicester. 1888. Oct. Figure, I. J., 50, Thorne Road, South Lambeth. 1891. Oct. † Flower, Thomas James Moss, Liverpool Chambers, Corn Street, Bristol. 1888. Oct. Forde, H. C., M.INST.C.E., 4, Great Winchester St., E.C. 1891. May. Fosbroke, G. H., M.R.C.S., D.P.H., M.O.H., The County Hall, Worcester. 1888. Oct. Foster, Reginald Le Neve, r.c.s., North Road, Droyledon, Manchester. FRANK, Philip, M.D., Cannes, France. 1888. Oct. 1888. Oct. Fraser, James, M.INST.C.E., 100, Castle Street, Inverness. 1889. Jan. Fraser, W. J., Assoc. M. INST.C.E., 98, Commercial Road, E. 1888. Nov. FRYER, James, 13, Bloomsburg Street, Vincent Square, 1888. Oct. Galton, Francis, r.n.s., 42, Rutland Gate, S.W. 1889. Mar. GANGE, Frederick A., M.D., M.O.H., Faversham, Kent. 1888. Oct. †Gens, Harry, Hillside, Okehampton, Devon. 1891. July. †Ginns, Arthur Gordon, Storrington, Sussex. 1889. Dec. †Ginson, William, Bonhay Road, Exeter. 1889. Jan. †Gilby, Charles, Bath. 1888. Oct. Gill, D., Farleigh, Weston-super-Mare. GILLILAND, William John, Architect, 74, Royal Aconuc, 1891. Nov. Belfast. GLADSTONE, J. H., PH.D., F.R.S., 17, Pembridge Square, 1888. Dec. GLEN, A. W., 33, Davies Street, Berkeley Square, W. 1888. Dec. GODFREY, Robert, ASSOC.M.INST.C.E., King's Heath, 1890. Mar. Worcestershire. Going, Joseph A., M.R.C.S , B.A., M.O.H., Fox Bay, West 1891. Jan. Falkland Islands, South America. GOODYEAR, Herbert, ASSOC.M.INST.C.E., Colchester, Essex. 1889. Nov. GRANT, Ogilvie, M.B., C.M.EDIN., M.O.II., Queen Mary's 1889. Apr. House, Inverness. GRAY, Alexander, 25, Greenhill Road, Hampstead, N.W. 1888. Oct. GREATOREX, Albert Daniel, Municipal Offices, South-1890. Apr. hampton. GRELLIER, William, F.R.I.B.A., 6, Queen Anne's Gate, 1888. Oct. S.W. GROVES, Joseph, B.A., M.D., F.G.S., Carisbrooke, Isle of 1888. Oct. GRUGGEN, William, D.P.H., 11, Montpelier Road, 1890. Jan. Ealing, W. HALL, E. T., F.R.I.B.A., 57, Moorgate Street, E.C. 1888. Oct. HALL, Watkin, Assoc.M.INST.C.E., Local Board Offices, 1891. Mar. College Road, Gt. Crosby, Lancashire. 1891. Jan. Hamilton, Walter M., M.D., 456, Liverpool Road, Patri-

croft, Lancashire.

1888. Oct. HANCOCK, Charles, M.A.ONON, 2, The Cloisters, Temple, E.C., and Reform Club, S.W. 1890. Dec. Hanson, John, Victoria Chemical Works, Wakefield. 1889. Mar. Harding, J. R., M.Inst.c.E., Epsom, Surrey. 1889, Apr. Hare, C. J., M.D., P.R.C.P., Berkeley House, 15, Manchester Square, W. 1889. Mar. HARPUR, William, M.INST.C.E., Town Hall, and 197, Severn Road, Cardiff. 1890. Apr. Harris, Arthur Wellesley, M.R.C.S., L.S.A., D.P.H., M.O.M., High Street, Southampton. 1888. Oct. Harris, William John, M.R.C.S.E., L.S.A., P.R.MET.SOC., Church House, Heene, Worthing. 1888. Oct. Harrisson, Thomas Harnett, Assoc.M.Inst.c.E., Contral Buildings, North John Street, Liverpool. 1888. Dec. Harnold, Miss C., 10, Church Road, Edgbaston, Birmingham. 1891. Nov. HASLAM, Dryland, Junr., P.A.S.I., 17, Friar Street, Reading. HASLAM, Lewis, Ravenswood, near Bolton. 1888. Oct. HASLIP, George Ernest, M.D., M.R.C.S., L.R.C.P., D.P.H., 1891. Apr. 3, Southampton Street, Strand. HAYWARD, C. F., F.S.A., F.R.I.B.A., 47, Museum Street, 1888. Oct. Bloomsbury, W.C. 1888, Oct. Head, Henry, 41, Wimpole Street, W. 1889. Feb. HEAD, Mrs. H., 41, Wimpole Street, W. 1888. Oct. Hellyer, S. Stevens, 21, Newcastle Street, Strand, 1889. Mar. Herbert, Johnson, L.R.C.P., 3, Belle Vue Terrace, Whitby. HILL, Miss F. M. Davenport, 25, Belsize Avenue, 1888. Dec. 1888. Dec. Hill, Miss R. Davenport, 25, Belsize Avenue, N. W. HILL, Pearson, 6, Pembridge Square, W. 1889. Jan. HILL, PROF. A. Bostock, M.D., D.P.H., M.O.H., Elmhurst, 1891. Jan. Olton, Birmingham. IIILL, Samuel, A.R.I.B.A., 16, Russell Square, W.C. 1888. Oct. 1888. Oct. Hill. William H., Town Hall, Kensington. 1891. Oct. †HILLS, Harry James, 27, Park Road, New Wandsworth. S. W. 1889. Mar. Hodgetts, E. A. Brayley, 39, Redcliffe Square, South Kensington, S. W. 1888. Oct. Hodgson, Shadworth H., 45, Conduit Street, W. Hodgson, William James, Assoc. M. INST. C. E., High 1891. July. Park, Near Ryde, Isle of Wight. 1890. Apr. Holberton, Henry Nelson, L.R.C.P., M.R.C.S., D.P.H., East Moulsey. Holmes, Timothy, M.A., F.R.C.S., 18, Great Cumberland 1888. Oct. Place, W. 1888. Oct. Holt, H. P., Assoc.M.Inst.c.e., F.G.S., The Cedars,

Didsbury, Manchester.

1891, Nov. Holroyde, John, D.P.H., M.O.H., Camden House, Chatham. 1889. Mar. Hooley, Cosmo C., Assoc, M. Inst. C. E., The Union Offices, Barton-upon-Irwell, Manchester. 1889, Nov. Hoopen, Charles, M.R.C.S., M.O.H., Aylesbury, Bucks. 1889. Jan. † Houghton, John, Poplar Road, King's Heath, near Birmingham. 1888. Oct. Howard, E., 84, Upper Whitecross Street, E.C. 1888. Oct. Howe, George, 41, Wigmore Street, W. 1890. June. #Hoy, Peter. 1888. Oct. †Hubben, Frank, 85, South Street, Exeter. 1891. Oct. †HUNT, John W., Maindee, Newport, Monmouth. 1888. Dec. INGLIS, Cornelius, M.D., 1, Albert Mansions, Victoria Street, S.W. 1891. Nov. INGRAM, Matthew, Manchester. 1890. May. Ivon-Moone, T., R. E. Establishment, Barbadoes, West 1890. Nov. †James, Arthur Charles, Borough Surveyor's Office, Cambridge. 1889. May. James, Charles Alfred, Lincop, Minicis., D.P.H., 24, Cazenove Road, Stamford Hill, N. 1891. Nov. Johnson, Samuel, M.D., C.M., M.O.H., Stoke-on-Trent. 1891. Oct. †KAY, Walter Robert, Mount Sion House, Bury. 1889. Mar. Kempster, William Henry, M.D., M.O.H., Oak House, Battersea. 1888. Oct. Kennett-Barrington, Sir Vincent Hunter B. 1889. Dec. Kinny, Oscar John, Engineer and Manager Water Works, Batley. 1889. Mar. Kirwan, Surgeon-Major A., D.P.H., St. Lucia, West Indies. 1889. Mar. Kyle, Thomas W., M.D., D.P.H., M.O.H., Measham, Atherstone. 1888. Oct. LACY, William George, 82, East Hill, Wandsworth. 1889. May. LAING, R., M.R.C.S., L.R.C.P., F.R.MET.SOC., M.O.H., 20, Waterloo Road, Blyth, Northumberland. 1888. Dec. LAVENDER, Charles Henry Nalder, 2, Ulster Terrace, Regent's Park, N.W. LAWRENCE, Edwin, 10, Kensington Palace Gardens, W. 1888. Oct. LE GRAND, A., 100, Bunhill Row, E.C. 1888. Oct. LEMON, James, M.INST.C.E., F.R.I.B.A., F.S.I., F.G.S., 1888. Oct. Lansdowne House, Southampton, (Palace Chambers, Westminster). 1888. Oct. LEONARD, Hugh, 7, Hanover Square, W. 1888. Oct. LE Rossignol, Francis, F.S.I., 1, Gresham Buildings, Basinghall Street, E.C., (29, Penn Road Villas, Camden Road, N.). 1889. June. Letts, Thomas Hollins, 185, Earls Court Road, South Kensington.

1888. Oct. LINGARD, Alfred, M.R.C.S., L.S.A., D.P.H.CAMB., St. Ermins

Mansions, Westminster.

LINGARD, J. Edward, Rodney Chambers, Derby. 1888. Oct. LLOYD, Robert Samuel, 84 & 85, Whitecross Street, 1888. Oct. 1888. Oct. Laoyd, Thomas, The Square, Winchester. 1890. Mar. Loane, Joseph, M.R.C.P.E., D.P.H., M.O.H., 98, Tressillian Road, St. John's, S.E. 1889. Apr. Lockwood, Phillip Causton, M.INST.C.E., 1, Gloucester Place, Brighton. Lowe, Mrs. Thomas, Solikull, Birmingham. 1889. Jan. 1881. June. LYNDE, Frederick Charles, Assoc.M.INST.C.E., 25, Cross Street, Manchester, and 9, Victoria Street, S.W. Lyon, Washington, 85, Asylum Road, Peckham, S.E. 1888. Oct. McArthur, A., M.P., 79, Holland Park, W. 1888. Dec. 1890. Oct. McBeath, William, M.A., M.D., D.P.H., 7, Flora Place, Plymouth. Macassey, L. Livingston, M. INST. C. E., 1, Plowden 1888. Oct. Buildings, Temple, E.C. McIntosu, James, Duncevan, Oatlands Park, Weybridge. 1888. Oct. 1888. Oct. #MACKENZIE, F. Morell, M.R.C.S., L.S.A., 10, Hans Place, S.W. MACKENZIE, William Leslie, M.A., M.B., C.M., D.P.H., 1891. Nov. COUNTY M.O.H., Newton Stewart, N.B. MACKEY, John B., 2, Bouverie Street, Fleet Street, E.C. 1888. Oct. McKie, Hugh Umsworth, M.INST.C.E., 11, Victoria Street, 1888. Oct. Westminster. McMorran, Alexander, Galloway House, Carlton Road, 1888. Oct. 1890. Apr. McNell, Roger, M.D., D.P.H., J.P., County Medical and Sanitary Officer, Oban. 1889. Mar. Macnamana, Charles Edward, L.K.Q.C.P.I., D.P.H., 11, Cambridge Gardens, Notting Hill, W. 1888. Oct. †MAGUIRE, William Robert, F.R.MET.SOC., 10, Dawson Street, Dublin, and Town Hill, Dalkey, Co. Dublin. 1888. Oct. Malthy, Frederic Thomas, Assoc.M.Inst.c.E., Surveyor's Office, Guildford. 1890. July. Marsden, James Aspinall, M.R.C.S., L.S.A., D.P.H., M.O.H., Standish, Wigan, Lancashire. MARSHALL, John Ingham F., M.R.C.S., 28, St. Saviour-1888. Dec. gate, York. MARTINDALE, William, 10, New Cavendish Street, W. 1888. Dec. MARTINEAU, E. H., F.R.I.B.A., 30, Weymouth Street, 1888. Oct. Portland Place, W. 1888. Oct. Mason, Hugh H., M.R.c.s., Abbey Lodge, Barking. 1889. Nov. # Massey, Joseph Bennett, 64, Burns Street, Burnley, Lancaster. 1888. Oct. Mathews, J. Douglass, F.R.I.B.A., F.S.I., 11, Dowgate Hill, E.C. 1888. Oct. †MAWBEY, E. G., ASSOC.M.INST.C.E., Borough Engineer

and Surveyer, Town Hall, Leicester.

1888. Oct.

Park, W.

1888. Oct. NICOL, W. E., Ballogie, Aboyne, Aberdeen.

Melissenos, G. C. A. Melisurgo, assocmanst.c.e., 1888. Oct. Palazzo Cocozzo, 76, Via Poerio, Naples. 1888. Oct. †Metcale, John W., 31, Tamworth Road, Ashby-de-la-Zouch. METCALFE, James, 5, Nether Hall Road, Doncaster. 1891. Nov. MIDDLETON, Reginald E., MAINST.C.E., M.I.M.E., 17, 1888. Oct. Victoria Street, S.W. MINEARD, George Edward, F.R.H.S., 70, Philbeach Gar-1888. Oct. dens, Earl's Court, S.W. 1891. Dec. MITCHELL, Robert, Chief Sanitary Officer, Cape Town, South Africa. Mocatta, F. D., 9, Connaught Place, W. 1888. Oct. Montagu, Samuel, 12, Kensington Palace Gardens, W. 1888. Oct. MOORE, J. H., St. Michael's Lodge, Bournemouth. 1888. Oct. More, James, Jun., Assoc.M.INST.C.E., P.R.M.S., 40, 1891. Dec. Orlando Road, Clapham, S.W. 1890, Mar. Morgan, William Pringle, D.A., M.B., B.CH., D.P.H., Hardis House, Seaford. 1891. May. Moroan, William Barlow, Assoc.M.Inst.c.E., Surveyor, Weymouth. 1889, July. Morison, John, M.D., D.P.H., Victoria Street, St. Albans. 1891. Oct. †Morley, Edwin, Town Hall, Walthamstow. 1888. Oct. †Morley, J. G., Assoc.M.Inst.c.E., Town Hall, Stratford, E. Morris, Albert, M.R.C.S., L.R.C.P., M.O.II., Post Office 1891. Jan. Buildings, Southend. 1889. May. Morris, Pryce Jones Langford, M.R.C.S., L.R.C.P., M.O.H., Halesworth, Suffolk. MOUAT, F. J., M.D., 12, Durham Villas, Kensington, 1888. Oct. MOUAT, SURGEON-GENERAL J., C.B., F.R.C.S., 108, Palace 1888, Oct. Gardens Terrace, W. Mumby, B. H., M.D., M.R.C.S., M.O.H., Portsmouth. 1888. Oct. Munce, James, Assoc.M.Inst.c.E., Town Hall, Belfast. 1889. Apr. Munday, Major Henry, 23, Oakley Square, N.W. 1889. Dec. MURPHY, Francis Henry Swinton, M.D., D.P.H., Royal 1889. Apr. Arsenel, Woolwich. Myers, Brigade-Surgeon A. B. R., M.R.c.s., L.S.A., 43, 1889. Jan. Gloucester Street, Warwick Square, S.W. 1888. Oct. Nanson, Tom, 9, Park Crescent, Stockwell Park Road, 1888. Nov. NASH, BRIGADE-SURGEON William, M.D., 18, Victoria Street, Westmister, S.W. 1889. May. NASMYTH, Thomas Goodall, M.B., C.M., D.P.H., F.R.S.E., Cowdenheath, Fife. 1889. Mar. NELSON, E. M., Hanger Hill House, Ealing. Nelson, George H., The Lawn, Warwick. 1888. Oct. NEWTON, Edward, F.R.C.S., 85, Gloucester Place, Hyde

1888, Oct. †NICHOLS, H. Bertram, ASSOC.M.INST.C.E., Grosvenor Chambers, Corporation Street, Birmingham. NUNN, F. C., ASSOC, M.INST.C.E., Eastnor, Sydenham 1890. Dec. Hill, Surrey. 1888. Oct. PAGE, Herbert Markant, M.D., D.P.H.CAMB., M.R.C.S., 16, Prospect Hill, Redditch. 1888. Oct. PAGLIARDINI, T., 21, Alexander Street, Westbourne Park, W. 1889. May. PARKER, G. R., M.R.C.S., L.R.C.P., M.O.H., 34, King Street, Lancaster. 1889, Mar. PARKER, John, ASSOC, M. INST.C.E., 42, Dryden Street, Nottingham. 1890. Mar. +PARKER, John, ASSOC, M.INST.C.E., City Engineer, Here-1888. Oct. Parkes, Miss P., 8, Grove Road, Surbiton, S.W. 1888. Oct. Parsons, II. Franklin, M.D., Local Government Board, Whitchall, S.W. 1889. Mar. Partridge, Thomas, M.R.C.P.I., M.K.Q.C.S.I., L.S.A., M.O.H., Stroud, Gloucester. 1889. May. Patter, Charles Arthur, L.R.C.P., M.O.H., Edling. 1888. Oct. Pattinson, S., Ruskington, Sleaford, Lincoln. Peake, Francis, The Waldrons, Croydon. 1888. Dec. 1888. Dec. PEEL, Edmund, Brynfys, Ruabon, North Wales. 1888. Oct. †Phillipson, Burton R., Baggot Street, Dublin. 1891. Nov. Piller, John J., 2, Malfort Road, Denmark Hill, S.E. 1890. Oct. † Pongio, Eloi John, 20, Marylands Road, Harrow Road, 1888. Oct. Powerl, George Thompson, Rotherwood, Sydenham Hill, (28 and 29, St. Swithin's Lane, E.C.). Powell, J., 19, Castle Street, Liverpool. 1888. Oct. PRIESTLY, Mrs. Eliza, 17, Hertford Street, Mayfair. 1888, Dec. PRITCHETT, G. E., F.S.A., F.R.I.B.A., Oak Hall, Bishop's 1888. Oct. Stortford, (1, Hanway Place, Oxford Street, W.). Pullar, Robert, J.P., F.R.S.E., Tayside, Perth. 1888. Oct. PULLIN, T. H. S., M.D., F.R.C.S., F.S.A., Sidmouth, Devon. 1888. Oct. PURNELL, W. J., Vincent Row, Vincent Street, West-1888. Oct. minster. PURNELL, E. W., Vincent Row, Vincent Street, S.W. 1888. Oct. 1888. Oct. Quain, Sir R., M.D., F.R.S., 67, Harley Street, W. 1889. Nov. † RADCLIFFE, Joseph, F.R. MET. Soc., The Waterworks, Todmorden, Lancaster. 1890. Nov. Radford, John Charles, Assoc.M.Inst.c.e., Surveyor, 113, High Street, Putney. 1888. Oct. †Radford, W. H., Assoc.M.Inst.c.e., A.R.I.B.A., Pelham Chambers, Angel Row, Nottingham. 1889. Mar. †RAILTON, James, Town Hall, Lower Edmonton. 1890. Apr. RAINGER, Charles Henry, 9, Bath Place, Cheltenham. 1889. Mar. READ, Richard, Assoc. M. INST. C.E., City Surveyor, Gloucester. 1888. Nov. Reynolds, Mrs. Russell, 38, Grosvenor Street, W.

1890. Mar. RHODES, John William, 3, Clifford's Inn, Fleet Street, E.C. 1888. Oct. RIDINOS, H. Sadleir, M.A., M.INST.C.E., Care of H. S. King & Co., 65, Cornhill, E.C. 1888. Oct. Roberts, Frederick F., M.D., 102, Harley Street, W. Roberts, Richard Lawton, M.D., D.P.H.CAMB., M.R.C.S., 1890. Jan. L.S.A., Ruabon, North Wales. 1888. Dec. Robins, Edward, 22, Conduit Street, W. 1891. Mar. Roche, Antony, M.R.C.P.I., L.R.C.S.I., L.M., Professor of Hygiene, 72, Harcourt Street, Dublin. 1888. Dec. Roe, Surgeon-Major, E. A. II., 17, Whitehall Place. 1889. Apr. Rogens, George Arthur, M.R.C.S.E., L.S.A., M.O.H., 404, Commercial Road, E. ROTH, W. M.D., 6, Kaizer Wilhelm Platz, Dresden, N. 1888, Oct. 1891. Mar. ROYLE, Stanley Arthur, City Surveyor's Office, Manchester. 1888. Oct. Russell, Hon. Lady Agatha, Pembroke Lodge, Richmond Park, Surrey. 1891. Nov. †Saise, Alfred James, Stapleton, Bristol. 1889. Mar. Sandell, Henry W. Adrian, M.R.C.S., M.O.H., Leighton 1889. Mar. Schoffeld, Gerald, M.R.C.S., L.R.C.P., D.P.H., Durham House, Bournemouth. 1888. Oct. Scott, Bowes, Broadway Chambers, S.W. Scort, Conway, Executive Sanitary Officer, Town Hall, 1891. Nov. Belfast. 1889. Mar. Scott, Hugh Hamilton, Assoc.M.INST.C.E., Town Hall, Hove, Brighton. SCOTT-MONCRIEFF, W. D., M.I.M.E., 86, Newman Street, 1888. Oct. SCRIVEN, J. Barclay, M.R.C.S., 95, Oxford Gardens, 1888. Oct. North Kensington. SEARLES-WOOD, Herbert D., F.R.I.B.A., 157, Wool 1888. Dec. Exchange, E.C. Selby, Prideaux, Koroit, North Park, Croydon. 1889. Jan. 1889. Mar. Sellers, William, June., M.D., M.O.H., Bank House, Radcliffe, Manchester. 1889. Mar. Shadwell, St. Clair B., L.R.C.P., M.R.C.S., M.O.H., Lynhurst, Walthamstow. 1889. Mar. Shaw, Charles Knox, L.R.C.P., M.R.C.S., 19, Upper Wimpole Street, W. 1889. Apr. Shaw, Josephus, M.R.C.S., L.S.A., M.O.H., 151, Lower Road, Rotherhithe, Shelbourn, Michael, Architect and Surveyor, Belvoir, 1891. Oct. Grantham. 1891. Nov. SHIMELD, James, L.R.C.P. and S.E., M.O.H., Salisbury

House, Ilford.

Kingston-on-Thames.

1889. Mar. Shirtliff, Edward Matthew, M.D., M.O.H., Elm Side,

SHONE, Isnae, ASSOC, M. INST. C. E., Gt. George Street 1889. Jan. Chambers, S.W. SHONKSMITH, John Henry, Micklegate, York. 1888, Oct. SILLAR, W. O., St. James Lodge, Kidbrooke Park Road, Blackheath, S.E. 1888, Oct. 1888, Dec. SIMPSON, William John, M.D., D.P.H.CAMB., Health Officer, Calcutta. Sionder, James Lewis, M.B., F.R.C.P., Mentone, Alpes-1888. Oct. Maritimes, France. SKRINE, Henry Duncan, Claverton Manor, Bath. 1888, Oct. 1888. Oct. SMEATON, J., 56, Great Queen Street, Lincoln's Inn Fields, W.U. 1889. June. # Smith, Charles Chambers, Surveyor's Office, Dalton-in-Furness. SMITH, Percival Gordon, F.R.I.B.A., Highfield, Stone-1888. Oct. bridge Park, Willesden. SMITH, R. W., Mount Rundell, Harborne, Birmingham. 1888. Oct. 1888. Oct. SMITH, Thos. Fredk. II., F.R.C.S., L.S.A., Farningham, SMITH, T. V., 111, Grosvenor Road, S. W. 1889. Feb. SMITH, William Howard, ASSOC.M.INST.C.E., City Sur-1889. Mar. veyor, Carlisle. 1889. Jan. SNELL, Alfred, W., A.R.I.B.A., 1, Park Road, Wimbledon. SOUTHAM, Arthur, ASSOC.M.INST.C.E., 60, Old Town, 1889. Apr. Clapham. 1889. Mar. Squance, Thomas Coke, M.D., F.R.MET.SOC., M.O.H., 4, Beauclero Terrace, Sunderland. STAINTHORPE, W. Waters, M.D., D.P.H.EDIN., Saltburn-1888. Oct. by-the-Sea. STANSFIELD-BRUN, J., F.R.I.B.A., District Surveyor, 1888. Oct. Bradford-on-Avon. STEEL, William D., M.D., M.O.H., D.P.H., Neville Street, 1889. Apr. Abergavenny.
1889. Mar. Steeves, George Walter, B.A., M.D., M.O.II., 53, Parkfield Road, Liverpool. STEPHENSON, J. Gurdon L., ASSOC.M.INST.C.E., M.I.M.E., 1888. Oct. F.G.S., 6, Drapers Gardens, E.C., and 14, Maxilla Gardens, Notting Hill, W. STEVENS, Joseph Wallace, Belph, Whitwell, near Ches-1890. Oct. terfield. STEVENSON, Thos., M.D., 45, Gresham Road, S.W. 1888. Oct. STEWART, Alan, Maldon, Essex. 1889. Mar. Stiff. Ebenezer, London Pottery, Lambeth. 1889. Jan. 1888. Oct. STONE, W. H., Lea Park, Godalming. STREET, William C., A.R.I.B.A., ASSOC, INST.C.E., 7, Vic-1888. Oct. toria Street, Westminster, S.W. SUDELEY, RIGHT HON. LORD, 7, Buckingham Gate, 1888. Dec. S.W. 1889. Jan. †Swainson, John Henry, M.S.A., ASSOC.M.INST.C.E., 59, Hope Street, Wrexham.

1889. Jan. †Swan, Harold, 114, Trinity Road, Upper Tooting. SWINDURNE, C. A., Belgrave Mansions, Grosvenor Gar-1888. Dec. dens, S.W. SWINNERTON, Robert Allen William, ASSOC.M.INST.C.E., 1891. Dec. M.I.M.E., Bolarum, Dekkan, India. 1889. Mar. SYKES, Matthew Carrington, L.R.C.P., M.R.C.S., D.P.H., Barnsley.
1888. Oct. †Tattersall, W., 90, Arden Terrace, Accrington. TAYLOR, Charles, M.R.C.S., L.S.A., 3, Lorraine Road, 1888. Oct. Holloway, N. TAYLOR, Win. Fredk., M.D., M.R.C.S., L.S.A., Brisbanc, 1889. Jan. Queensland. Teale, T. Pridgin, M.A., M.B., P.R.C.S., P.R.S., 38, Cook-1888. Oct. ridge Street, Leeds. THOMAS, Walter, ASSOC.M.INST.C.E., Castleknowie, and 1888. Oct. Town Hall, Dover. 1888. Oct. †Thomas, W. E. C., assoc.m.inst.c.e., Eaglesbush, Neath. Thomason, Thomas William, L.R.C.P., M.R.C.S., D.P.II., M.O.H., Med. Inspr., Local Government Board, S. W.
1891. Mar. Thompson, George William, Assoc.M.Inst.c.e., 36,
Wood Vale, Forest Hill, S.E. 1890. June. †Thomson, Gilbert, 75, Bath Street, Glasgow. THORNEYCROFT, Lieut.-Col., Tettenhall Towers, Wolver-1888. Oct. hampton. THORNLEY, J. E., Lyndon, Bickenhill, Birmingham. 1888. Oct. THRESH, John Clough, M.B., B.S., D.SC., P.I.C., F.C.S., 1890. Jan. M.O.H., Chelmsford. THRING, RIGHT HON. LORD, K.C.B., F.R.G.S., 5, Queen's 1889. Jan. Gate Gardens, S.W. THURSFIELD, W. N., M.D., D.P.H., M.O.H., Shrewsbury. 1889. July. TITMAS, William, 34, Grafton Street, W.C. 1888. Dec. TRAVERS, William, M.D., F.R.C.S., 2, Phillimore Gar-1888. Oct. dens, W. TREW, J. Fletcher, 12, Clarence Street, Gloucester, (22, 1888. Dec. Broad Street, Bristol). 1889. Nov. Tripe, John W., M.D., M.R.C.S., M.O.H., F.R.MET.SOC., Town Hall, Hackney. 1888. Oct. Tyndale, Walter Clifford, Assoc. M. Inst. C.E., Horse Guards, Whitchall, S.W., (St. Stephen's Road, Ealing). 1889. Mar. Underhill, A. S., M.B., B.A., M.R.C.S., D.P.H., Great Bridge, Tipton. 1888. Oct. VALON, William A., ASSOC.M.INST.C.E., 140, Temple Chambers, Temple Avenue, E.C. 1889. Nov. WADDY, Henry Edward, F.R.C.P., D.P.H.CAMB., Rhossili, Brunswick Road, Gloucester. WAKEFIELD, Miss E. M., Broughton, Longdon, Rugely. 1888. Oct. 1888. Oct. WALLACE, William, 27A, Old Bond Street, W. 1890. Oct. † WALLIS, Arthur Gray, Care of West of Scotland Sani-

tary Association, 75, St. George's Place, Glasgow.

1888. Oct. Wallis, H. Sowerby, P.R.MET.Soc., 25, Northwood Road, Highwate, N. Wallis, Isabel White 49, Clifton Hill, St. John's 1890. Apr. Wood, N. W. 1891. Nov. WARD, Arthur W., Lisburn, Merton Road, Southsea. WATSON, John Duncan, ASSOC. M. INST. C. E., County 1891. Dec. Buildings, Aberdeen. 1889. Jan. Welch, Henry, M.D., B.SC., D.P.H.EDIN., Public Health Offices, Blackpool. 1888. Nov. Wells, Sir T. Spencer, Bart., M.D., F.R.C.S., 3, Upper Grosvenor Street, W. 1890. Nov. Wheeler, Charles, 12, Dovecote Villas, Wood Green. 1891, Nov. WHITAKER, William, B.A., F.R.S., F.G.S., 33, East Park Terrace, Southampton, and 28, Jermyn Street, S.W. 1888. Dec. †Whiteombe, Arthur, 48 & 50, Howland Street, Fitzroy Square, W. 1888. Oct. White, William, F.S.A., F.R.I.B.A., 30a, Wimpole Street, 1889. Apr. Wightwick, Fallon Percy, M.B., M.R.C.S., L.R.C.P., D.P.H., St. John's, Horsleydown, S.E. WILKINSON, W. B., Northumberland Street, Newcastle-1888. Oct. on-Tyne. 1888. Oct. #Wilkinson, William, Town Hall, Salford, (20, Aldren 1888. Oct. Williams, C. Theodore, M.A., M.D., F.R.C.P., F.R.MET.SOC., 2, Upper Brook Street, W. WILLIAMS, Roscoe A., M.D., State Board of Health, 1891. Dec. Olathe, Kansas, U.S.A. 1889. Dec. WILLIAMS, William, M.A., M.B., D.P.H.OXON, M.R.C.S., L.S.A., The Royal National Hospital, Ventnor. WILLIS, George, L.F.P.S.G., M.O.H., Clifton House, Bail-1889. Apr. lieston, Glasgow. 1888. Oct. †Wilson, J. B., Court House, Cockermouth. WITHERS, J. B. Mitchell, F.R.I.B.A., 73, Surrey Street, 1888. Oct. 1888. Oct. † Witts, "J. W., M.S.E., Borough Engineer's Office, Leeds. Woon, Jacob, Highbury Park, N. 1888. Oct. 1888, Nov. Wood, William, M.D., 99, Harley Street, W. 1889. Mar. WOODMAN, John, M.D., F.R.C.S., M.O.H., Southernhay, Exeter. 1888. Oct. Woodward, Edward Francis, 43, Southwell Street, Bristol. 1889. Jan. †Worth, John Edward, Assoc.M.Inst.c.e., F.R.Met.soc., Coombes Croft House, High Road, Tottenham.

1888. Oct. WYNDHAM, REV. Francis M., M.A.OXON, St. Charles

College, St. Charles Square, W.

1889. May. YARROW, George Eugene, M.D., M.O.II., Oakley House,

1888. Oct. Yuill, W., Assoc.M.Inst.c.e., 3, Fenchurch Avenue, E.C.

317, City Road, E.C.

ASSOCIATES (Assoc. SAN. INST.)

\$ Marked thus have passed the Examination of the Institute for Inspectors of Nulsances.

1888, Oct. #Annams, Henry. 1889. Nov. \$ADAMS, Albert E., Local Board Offices, Wood Green. 1888. Oct. ADAMS, H. J., 25, Coleford Road, Wandsworth. 1888. Oct. Adams, Miss Rose (Ladies' Sanitary Association), 22, Berners Street, Oxford Street, W. 1889. Jan. ‡ALLEN, William Henry, 22, Moira Street, Cardiff. 1890. Nov. #AMOR, Alfred, Octagon Chambers, Nelson Street, Bath. 1888. Oct. \$\frac{1}{2}\Amore, Daniel C., 39, Shirley Road, Freemantle, Southampton. 1889. May. ‡Anderson, Tom, 32, Harrington Street, Hampstead Road, N.W. 1890. July. Anner, William Fenn, 5, Church Street, Kensington. 1891. Apr. ‡Ashbown, Thomas, 38, Upper Garden Street, Westminster, S.W. 1889. July. \$\preceq\$Bailer, William, 74, Wilmslow Road, Withington, Manchester. 1889. June. BAINTON, John, Scunthorpe, Doncaster. 1889. Apr. BAKER, William, 2, Chetwyad Road, Lawrence Road, Southsea. 1890. Feb. BALSTER, Herbert, Town Hall, Margate. 1888. Oct. Bamlett, Adam Carlisle, Thirsk, Yorkshire. 1889. Jan. BARFOOT, James, 30, Fawcett House, Kennington Oval. 1888. Oct. BARRON, John, 81, Landor Road, Stockwell, S.W. 1891. Feb. BARTLETT, William John, 50, Cumming Street, E.C. 1888. Oct. BASCOMBE, H. C., Wallasey Local Board, Egremont, Cheshire. 1889. June. BASSETT, William Joshua, 16, Elizabeth Street, Eaton Square, S.W. 1890. Apr. BAXTER, Frank E., 374, Kennington Road, S.E. 1888. Oct. BAXTER, John, 374, Kennington Road, S.E. 1889. Jan. BECK, William Coker, Hastings. 1891. Dec. BEECH, James, Ivy Cottage, Brownhills, Tunstall. 1889. June. BIRCH, John Ernest William, 107, Cobden Road, South Norwood, S.E. 1890. May. \$\pmu_Bird, William Fred., The Island, Midsomer Norton. 1890. July. BISHOP, William F., 8, Francis Place, Nine Tree Hill, Bristol. 1888. Oct. ‡Black, Andrew E., 57, Academy Street, Inverness, N.B. 1891. May. BLACKMAN, Henry, Catsfield, Battle. 1888. Dec. Blake, E. T., M.D., 47, Seymour Street, Hyde Park, W. 1891. Mar. ‡Blake, H. K., Engineer's Office, Guildhall, E.C. 1889. June. Bland, William, 420, Liverpool Road, Patricroft. 1890, May. #Bond, George. 1890. Jan. BoxD, William Henry, St. Giles Board of Works, Holborn, W.C.

1888. Oct. Bostel, G. Stanford, 18, Duke Street, Brighton. 1891. April. Bounne, Edward, 256, High Street, Cheltenham. 1889. Jan. Bover, William T., Acton, W. 1889. July. Bowyen, Harry David, Park Street, Slough. 1888. Oct. Boyce, W., 117, High Street, Poplar, E. 1888. Oct. Boyn, Richard Wade, 105, New Bond Street, W. 1891. Mar. BRALEY, Francis, 18, Woodbine Avenue, Leicester. 1888, Oct. Breeze, John, Poynton Lodge, Wellington, Salop. 1891. Feb. BRINDLE, Thomas, 12, Ashfield Road, Chorley. 1888. Oct. Broad, Clement B., Stamford Brook Lodge, Ravenscourt Park, W. 1891. April. BROADHEAD, S., 24, St. James' Street, Humberstone Gate, Leicester. 1890. Nov. BROOK, John, Albany Place, Stratford-on-Avon, 1890, Nov. BROUGHTON, Thomas, Garston, near Liverpool. 1890. Nov. Brown, Edward, Local Board Offices, Burgess Hill. 1891, April. Brown, George William, Serg.-Maj. R.E., 3, Marle Hill Villas, Cheltenham. 1891. Feb. Brown, John, 8, Paddock, Whithy. 1888. Oct. BROWN, R. Railston, 1, Blenheim Terrace, Bridlington Quay, Yorkshire. 1888. Oct. BROWN, W. E., 19, Havelock Road, Hastings. 1800. Jan. BRYAN, George John, 4, South Norwood Hill, S.E. 1891. June. ±Bubb, John Thomas, 38, Albert Park, Bristol. 1888. Oct. Buchan, W. Paton, Fairyknowe, Cambuslang, Lanarkshire, N.B. Buckeridge, Walter, 5, Alexander Street, Westbourne 1888. Oct. Park, W. 1888. Oct. Bugler, W. J., Alpha House, Putney. 1888. Dec. Bunn, Robert G. N., 24, Charing Cross, S.W. 1888. Oct. Burnoughs, S. M., Snow Hill, E.C. 1889. Oct. Bunscough, Frederick Peter, 42, Belmont Avenue, Blackpool. 1889. May. BUTLAND, R. J., Town Hall, Brighton. 1891. Mar. + Butler, Walter, Farcham, Hants. 1891. April. Burton, W. H., 59, Avenue Road, North Finchley. 1890. Apr. BUTTERWORTH, Arthur, Board of Works, Maxey Road. Plumstead. 1889. Feb. ‡Buxton, Anthony, Carisbroke, Isle of Wight. 1890. Feb. CALLAWAY, Albert Henry, Grosvenor Villa Evesham Place, Stratford-on-Avon. 1891. June. †CARTER, Alfred, 71, Leighton Road, Kentish Town. 1891. July. ‡CARY, Aquilla S., 1, Lily Villas, New Southgate. 1888. Oct. CATTEN, Joseph H., 32, Eveter Street, Sloane Street. S.W. 1891. Nov. Challoner, William, Blackpool, Lancaster. 1889. Apr. #Chaner, William H., 36, Essew Street, Strand. 1891. Nov. ‡Cheshire, Alfred, 64, Church Street, Rugeley. 1889. Feb. ‡Christie, David, 76, Brunswick Avenue, Hull. 1888. Oct. †Clarkson, Joseph, Churchfield Terrace, Butley, Yorks.

1889. Jan. ‡CLAYTON, Edward, Mansfield, Notts. 1890. June. CLIFTON, Henry Chas., 50, Porchester Road, Bayswater. 1888. Oct. COBHAM, C., The Shrubbery, Gravesend. 1888. Oct. COBHAM, G. R., 3, Edwin Street, Gravesend. 1890. Apr. COCKBURN, Henry Mace, 1, Estelle Road, Mansfield Road, Gospel Oak. 1891. Jan. COLE, A. C., 21, West Street, Dorking. 1891. July. COLLINS, Henry Beale, 16, Little Grosvenor Street, W. 1891. Dec. COLLYER, C., Uttoxeter, Stafford. 1891. Nov. Cook, James, Warton, near Carnforth. 1890. Dec. Cook, William Gough, 395, Kennington Road, S.E. 1889. Feb. COOPER, William George, Sanitary Inspector, Bournemouth. 1890. Jan. Corestick, George Christopher, 1, Arboretum Square, Arboretum Street, Derby. 1890. Jan. CORBETT, Richard Lawrence, Oakengates, Salop. 1889. Jan. Corpon, Robert Curtis, Hillside Cottage, Duffield, Derby. 1891. June. ‡Core, James, 16, Harrington Square, N. W. 1890. June. #Corrick, Alfred. 1889. Mar. Cottle, Arthur Thomas, Selly Oak, Near Birmingham. 1890. Mar. Court, Thomas Henry, 103, King's Road, Peckham, (140, Tanners Hill, Deptford). 1891. Oct. Cownenov, John Tatem, Kidderminster, Worcester. 1889. Jan. Cowpen, Joseph, 22, Talma Road, Brixton. 1898. Oct. Cowper-Coles, Cowper Bickerton, 95, Wigmore Street, W. 1891. Jan. Coxill, George E., 15, Kentish Town Road, N. W. 1891. June. ‡CRANE, Joseph, 93, Trafalgar Road, Gorleston, Great Yarmouth. 1891. Feb. CRANE, William Henry, 14, Colonial Street, Hull. 1890. June. CROCKER, Thomas William, Vestry Hall, Pancras Road, 1889. June. ‡CROCKWELL, George E., 14, Church Street, Ilfracombe. 1888. Oct. CROOHAN, Thomas Andrew, 37, Devonshire Gardens, Buxton. 1891. Mar. ‡CRONK, Wm. Robert, Cranford House, Cranford, Hounslow. 1890. Feb. CROSSE, Hammond William, St. Mary's Cottage, Putney. 1890. Feb. CROSSLEY, James, 1, Maurice Street, Bolton Road, Pendleton. 1890. Jan. ‡CROWTHER, William Christopher, 51, Hind Street, Stockton-on-Tees. 1891. June. ‡Culling, James George, The Terrace, Swaffham. 1891. Feb. ‡Culver, Thomas Henry, 34, Bradstone Avenue, Folkestone. Kent. 1891. June. ‡Dale, Duncan, 312, Camberwell New Road, S.E. 1891, Dec. Dalton, George, Histon Road, Cambridge. 1889. June. ‡Daltry, John, Sanitary Inspector, Wellington, Salop. 1888. Oct. ‡Darley, George, 49, St. Mark's Street, Woodhouse, Leeds.

1890. May. ‡DAVIES, T. Lane, 1, Albert Square, E. 1891. June, Dawson, John Marshall, 93, Malpas Road, Brockley. 1890. June. Dawson, William, 6, Brooklands Road, Birkenhead. 1800. Mar. DEAN, Samuel Saunders, Hugglescote, Ashby-de-la-Zouch. 1890, June. DEE, Thomas George, 17, Grosvenor Road, S. W. 1888. Dec. Densham, Charles A., 42, Wellington Road, St. John's Wood, N. W. 1890. May. ‡Dick, William, Kirknewton, Midlothian. 1891. Dec. DOCKING, Frederick Reynolds, 56, George Street, Croudon. 1889. Apr. Douglas, The Hox. J. Thursday Island, Torres Strait, Queensland. 1890. Jan. Doven, John Henry, 13, King Street, Kensington Square, W. 1801. Nov. Dowsing, Alfred, 2, Mawney's Villas, Romford. 1889. Jan. EDRAKE, W. Medley, Kirkheaton, Huddersfield. 1889. June. Duck, Albert George, 211, Tooley Street, Horsleydown, S.E.1890. Feb. #Dunban, David. 1891. Nov. ‡Duthie, Alexander, 93, High Street, Brechin, N.B. 1889. Feb. DYER, Samuel, 3, Wellington Road, Bridlington Quan. 1801. June. ‡DYKE, Alfred William, St. John's Wharf, Wandsworth Bridge, Fulham. 1889. Jan. Dyson, John Henry, Park Terrace, Thornhill, near Dewsbury. 1891. June. #EARWICKER, John Charles, 3, Clarence Terrace, St. Mary's Grove, Richmond, S.W. 1889. Mar. #Easton, Charles Joseph, Coombes Croft House, High Street, Tottenham. 1891. Nov. ‡Eccles, William Henry, 98, Kay Street, Darwen. 1889. Jan. #Edmonds, William H., Vestry Hall, Pancras Road, 1890. Nov. EDWARDS, John, 16, Gladstone Street, St. George's Road. 1888. Oct. ±EMPTAGE, Daniel, Dane Hill Sanitary Works, Margate. 1888. Oct. ±Evans, John Evan, 137, Weston Street, Tooley Street, 1890. May. ±Evington, Charles William, 12, Bridlington Street, 1888. Oct. #FAIRCHILD, Samuel C. G., 569, Wandsworth Road, Clapham, S.W. 1891. Feb. #FAIREY, Alfred Isaac, 5, Tavistock Street, Covent Garden. 1890. Mar. Finch, William, 44, Mason Street, Kingston-upon-Hull. 1889. Jan. #FINCHER, John Gazeley, Aldershot. 1891. Nov. ‡Foad, Cephas, 34, Gough Street, Poplar, E. 1890. June. #Folland, John Percy, 22, Liverpool Street, King's Cross. 1888. Oct. FORDHAM, Wm. Francis, Hampton House, High Road, Kilburn.

1890. May. #Fornester, William, Headcorn, Ashford, Kent.

1888. Oct. France, T. W. Chapman, 36, Bristol Road, Edgbaston. 1890. Jan. #Fulchen, George, Rural Sanitary District, Rugby. GAIRDNER, PROF. W. T., M.D., LL.D., The University, 1888. Oct. Glasgow. 1888. Nov. &GARDNER, C. T., Town Hall, Worthing. 1888. Oct. #GARLAND, Wm., 12, Higher Maudlin Street, Barnstaple. 1888. Oct. Gass, John Bradshaw, A.R.L.B.A., 19, Silverwell Street, 1889. June. 2GATHERCOLE, William Henry Joseph, Engineer's Office, Guildhall, E.C. 1890. Mar. #Ginson, John, Health Offices, North Church Street, Sheffield. 1889. Mar. #GILBEART, John Joseph, 11 & 12, Little Chester Street, Belgrave Square, W. 1890. Jan. #Gillies, Neill, Lochgilphead, Argyllehire, N.B. 1891. June. #GILLESPIE, Rev. Charles George Knox, 2, Darwin Terrace, Derby. 1891. April. & Godsall, Henry John, Park Road, Saltley, Birmingham. 1888. Oct. #Goodwan, Arthur Ayde, 34, Church Road, Richmond, Tottenham. 1891. Nov. #GRANT, Alexander, Town Hall, Chelsea. 1889. Jan. #GRANT, Walter, 18, Gildredge Road, Eastbourne. 1890. Nov. #GRAYES, Matthew Dodgson, 71, College Street, York. 1891. July. GREEN, Edward Albert, 16, Rock Street, Bridgehouses, 1891. Feb. #GREEN, William, 6, Meredith Street, Clerkenwell, E.C. 1889. June. GREENWELL, Allan, Surveyor's Office, Frome. 1888. Oct. GRIBBLE, Miss Sarah C., 11, Willswood Park, Torquay. 1891. Feb. #GRIGG, William Henry, 21, Tadema Road, Chelsea, S.W. 1890. June. GRINHAM, Philip Boys, Tichborne Down, Alresford. 1891. June. #GRIVELL, Elias James, 10, Salisbury Road, Gloucester. 1890. June. ‡GROOM, William Edwin, 117, Wells Street, Camberwell. 1888. Oct. #Gunn, Alexander, 123, King Street, Aberdeen. 1890. Jan. ‡Hall, George Berringer, r.g.s., 10, Waldemar Avenue, Fulham Road. 1891. June. HIARPER, Frank, 39, Derby Road, Northampton. 1889. June. Harrison, George, 7, Plymouth Terrace, Humberston, Leicester. 1890. Feb. ‡Harrison, Henry, 5, Beaconsfield Terrace, West Kensington. 1891. Mar. #HARRISON, Wm. Henry, Health Offices, Sheffield. 1888. Oct. HARRISON, Wm. L., 7, Dock Street, Hull. 1888. Oct. HART, W. S., 29, Coley Hill, Reading. 1891. Mar. HARTNOLL, Francis, 49, St. Paul's Road, Burdett Rd. E. 1891. Oct. HATTON, Charles, 24, Church Street, Hereford. 1890. Jan. HAY, Alexander, 56, George Square, Glasgow.

1888. Oct. #Head, Robert H., 7, Upper Baker Street, N.W. 1891. Nov. HEAPS, William, Junr., 28, Parker Street, Chorley, Lancashire. 1888. Oct. Hearn, Walter, 7, Grove Terrace, Grove Park, Chiswick, and 27, Mecklenburgh Square, W.C. 1888. Oct. HEARNE, William, Buenos Ayres. 1889. June, HELSDON, Horace, 14, St. Edmunds Terrace, Primrose Hill, N, W. 1891. Feb. #Hennen, Alfred, 37, Joseph Street, Gosport. 1801. Nov. #Hennert, Harry, 3, Charge Place, Stockton-on-Tees. 1890. Mar. HILLS, Arthur Reginald, 24, Harley Street, Bow, E. 1888. Dec. # Honns, W. F., 36, Melbourne Street, Stalybridge. 1800. Mar. ‡Hodges, Albert, 57, Hall Street, Blakenhall, Wolverhampton. 1890. May. #Holland, Percy, Fairstead Cottage, Newmarket. 1889. June. Holmes, William, 43, Thornhill Street, Wakefield, Yorkshire. 1889. June. #HOOPER, Thomas Rowland, Redhill, Surrey. 1890. Jan. #Hoopen, William, 4, Lucas Road, St. John's Road, Penge, S.E. 1888. Oct. Honneastle, Henry, Chobham, Woking Station, Surrey. 1891. Nov. #Honnen, Benjamin Roper, 2, St. Stephen's Terrace, West Bowling, Bradford, Yorks. 1888. Oct. HIGHROCKS, Joseph, 10, Union Street, Southport. 1891. Nov. HIORSMAN, Charles Edwin, 8, Bedford Square, Bishopwearmouth, Sunderland. 1889. Jan. #Houghton, Robert Alfred, 5, Springfield Road, Wimbledon. 1890. Nov. Hughes, Edward J., 102, Camden Street, Birkenhead. 1891. Nov. ‡Hughes, Walter, Thompson Street, Bilston. 1891. April. #Humphery, Joseph Paxton, 2, Mark Terrace, East-1890. Jan. #IMRIE, Henry William, 28, Parry Place, Plumstead. 1890. Feb. INGRAM, William Jones, Goldsworth Road, Woking. 1891. Dec. #INSKIP, Frederick Thomas, Delhorne, Stoke-on-Trent. 1890. Feb. JACOB, Oswald, Sanitary Inspector, Feltham, Middlesev. 1891, Feb. #Jackson, Henry James, 4, Corn Street, Witney. 1891. Oct. JACKSON, William, Gate House, Shuttleworth, Bury. 1891. Oct. #JARVEY, George, Town Hall, Salford. 1889. Feb. JASPER, Robert Wevill, Withersfield Road, Haverhill, 1890. Jan. ‡Jellis, John, 188, Uttoxeter Old Road, Derby. 1889. July. ‡Jenner, Richard Messenger, Parade Road, Sandgate. 1891. Feb. #Johnson, H. Watts, 103, Gurney Road, Stratford, E. 1890. May. Johnson, John William, 785, Commercial Road, Limehouse. E. 1890. Nov. #Johnson, Joseph Edward, Town Hall, Hull. 1891. Nov. #Johnson, Matthew, 31, Palmer Street, Jarrow. 1891. Feb. #Johnson, Stafford, 3, Percy Road, Leytonstone.

1891. April. Jones, Charles Bristow, Town Hall, Fulham.

1890. Juno, Jones, John, 40, Sydney Street, Chelsea. 1890, Nov. Jones, Julius Morris Wilson, 27, Mornington Road, Bow, E. 1889. June. #Jones, William, Cemlyn, Dolgelly, Merioneth. 1890, Mar. Jouns, William, Gateshead. 1890. Dec. JURY, H. A., North-East Lodge, Chelsea Bridge, Grosvenor Road, Pimlico, S.W. 1888. Oct. #Keal, J., Southview Hill Road, Sutton, Surrey. 1888. Oct. ±Kemsley, Jesso, 55, Landcroft Road, East Dulwich. 1891. June. #Kenshaw, Edward Baxter, 115, Wellfield Road, Streatham. 1888, Oct. #Kiell, John, 103, High Street, Barnstaple. 1891. July. ‡King, Albert S. W., 27, Solon Road, Brixton, S. W. 1889, Feb. #King, Frederick William, Heybridge, Maldon, Essew. 1891. Feb. #Kink, John Wright, Jey Villa, Park Road, Plumstead. 1888. Oct. KITE, Charles, 31, Barronsmere Road, East Finchley. 1890. May. ‡Kx1GHT, Robert, junr., Dunfermline, Fife. 1889. Feb. #Knight, William Henry, 5, Selborne Road, Wood Green, N. 1889. Juno, & LANDER, James, 19, Millbank Street, Westminster. 1888. Oct. ‡LAPWORTH, J., Vestry Hall, Bethnal Green, E. 1889. Nov. \$LAURIE, John, 14, Poplars Avenue, Willesden Green. 1889. July. #LAYLAND, William Thomas, Grimstone, King's Lynn. 1891. Nov. ‡LEAR, Charles F. E., Alverstoke, Hampshire. 1889. Jan. LEAR, James Walter, 122, Southgate Road, N. 1889. Mar. ELEE, James, 28, Franchise Street, Rochdale. 1888. Oct. #Legg, S. C., 117, Powerscroft Road, Lower Clapton, N.E. 1888. Dec. ±Lennox-Clarke, A. 1891. Feb. ‡Lewis, Charles, Witham, Essew. 1889. Jan. ±Lewis, Arthur, Isham, Wellingborough. 1888. Oct. #Lightfoot, Thomas, 80, Vincent Square, Westminster. 1890. May. ‡Lightroof, William Charles, 20, High Road, Knightsbridge. 1890. Jan. ‡Lilly, William Gent, 5, Whitcomb Street, W.C. 1891. Feb. ‡Liscombe, Charles F., 24, Bishop Street, Bristol. 1890. Nov. ‡Little, William, 51, Trafalgar Street, Carlisle. 1891. July. #Lloyd, Christopher, 2, St. Mark's Terrace, New Brompton, Kent. 1890. Mar. LOCK, G. H., 64, Richards Terrace, Routh, Cardiff. 1891. July, LOCKE, Walter Richard, Bedford House, Aylesbury. 1891. Jan. Longsdon, Ernest M., Surveyor, Llundudno, Carnarron. 1891. Nov. ‡Lowry, James, Bradmore, Wolverhampton. 1889. Jan. ‡Lukes, Arthur Henry, Town Hall, Gravesend. 1890. Nov. ‡Lund, Clifton, 2, Arbour Street, Southport. 1888. Oct. †Lund, Jeremiah, St. James's Vestry, Piccadilly. 1888. Oct. McDonald, A. L., 37, George Street, Gipsy Hill, S.E. Macintosit, James, 38, Langham Street, W. 1888. Oct. 1889. July. Mackay, George Archibald D., Inspector of Cleansing, Edinburgh. 1889. Apr. MACKAY, James John, 186, Kensal Road, W.

1890. Feb. ‡Maclennan, John, Carnock House, Carnock, Dunferm-1891. Nov. #MADIN, William B., Town Hall, Leek. 1891. June. MAGER, Frederick Walter, Surveyor's Office, Town Hall, Tiverton. 1890. June. ‡Maguire, James, Sanitary Inspector, Huddersfield. 1890. May. MALCOLM, Alfred, Clayton, near Manchester. 1891. Nov. #Mansden, William Edward, 13, Springfield Street, Darwen. 1891. Oct. ‡Martin, William, Junr., Glenburn, Carluke, N.B. 1891. April. Mason, Frederick William, 22, Main Avenue, Bush Hill Park, Enfield. 1890. Apr. Mason, Jonathan, 1, Grove Terrace, Grove Road, Leytonstone. 1891. Feb. ‡Mason, William Allinson, Shildon, near Darlington. 1888. Oct. MATHIAS, H. D., 43, Weldon Street, Walton, Liverpool. 1891. Feb. MATTHEWS, William, Kedleston, Derby. 1889. Feb. \$\pm MAY, William H., Inspector's Office, Guildhall, E.C. 1891. Mar. MAYNE John William, Wimbledon, Surrey. 1888. Dec. MERRILL, John, Albany Road, Sheffield. 1889. Jan. #MILLARD, William David, 1, Elswick Villas, Ramsgate. 1801. Oct. MILLER, Henry, The Wilderness, Bracondale, Norwich. 1891. April. ‡Mills, Walter Shephard, 38, Chaplin Road, Willesden Green, N.W. 1891. Feb. ‡Milne, George, Ballater, Aberdeen. 1890. Oct. #MILNER, W., 18, St. Paul's Road, Preston. 1891. July. MILNER, Walter, 40, Sackville Street, W. 1891. April. MINERS, Richard Eustace, Board of Works, Poplar, E. 1888. Oct. #MINTY, Samuel, The Triangle, Bournemouth. 1891. Mar. ‡Misselbrook, G. T., Farcham, Hants, 1890. Feb. MITCHELL, Edward, 25, St. Saviour's Road, Croudon. 1891. Mar. MITCHENER, Frederick Harry, 4, Charles Street, Oxford Road, Islington. 1888. Oct. Molineux, Walter Frank Yate, Shifnal, Salop. 1890. June. \$\pmoony, Henry Fred, 26, Cavendish Street, Gt. Grimsby. 1891. Feb. Moone, Arthur George, Sundridge Workhouse, Sevenoaks, Kent. 1889. Jan. Mongan, Francis Robert, 25, Ordnance Rd., St. John's Wood. 1891. April. ‡Morris, G. John, Garden Vale, Athlone. 1891. April. \$\pmosLey, Abraham, care of E. Law, County Surveyor, Northampton. 1891. Dec. ‡Moss, Samuel, Williamson Street, Tunstall. 1889. July. ‡Nettleton, Charles William, 16, Winchester Terrace, Westminster, S.W. 1891. Mar. ‡Nicholas, David, 256, Essex Road, Canonbury, N. 1888. Dec. Norms, Joseph, Sunningdale, Surrey. 1890. Mar. ‡Norrish, John Thomas, 9, Cuthbert Road, Brighton. 1890. May. ‡Nurcombe, Benjamin, 1, Jasmine Terrace, Wurtemberg Street, Clapham.

1890. June. ‡NUTLEY, Charles Vernon, 13, Dalling Road, Hammersmith. 1890. Oct. CLIVER, G., 14, St. John's Road, Waterloo, Liverpool, 1889. Mar. ±OLLETT, John Henry, Sanitary Inspector, Eastbourne. 1889. Nov. Ond, James, 11, Portman Street, W., (41, Upper George Street, W.). 1891. Nov. #OUTRAM, Mason, Dronfield, near Sheffield. 1888. Oct. Pallisen, Christopher, Northallerton, 1890. Jan. PALMER, Henry Arthur, P. H. Office, N. Church Street. Sheffield. 1891. June. PARAMOR, Robert Walter, 16, Randolph Gardens, Dover. 1890. May. PARHAM, John, junr., 120, Powerscroft Road, Clapton Park, Hackney. 1891. Dec. PARKINSON, Herbert William, 11, Gloucester Road, South Kensington. 1889. Oct. Pansons, William, St. Luke's Vestry Hall, City Road. E.C.1890. May. ‡Pattison, William Phillip, 8, Addison St., Sunderland. 1891. June. Peake, Thomas Jones, 61, Wybunbury Road, Willaston, Nantwich. 1891. June. Peance, Frederick James, Borough Surveyor's Office. Kingston-on-Thames. 1888. Oct. Pearce, George Edward, Dartford, Kent. 1888. Oct. Pearson, John, Sanitary Inspector, Grace Hill, Folke-1891. June. Pemberton, Oliver, 273, Wheeler Street, Lozells, Birmingham. 1890. June. PERMAN, Edward, 3, Railway St., Newport, Monmouth. 1888. Nov. PERRY, Arthur, 45, Townshend Road, St. John's Wood. 1889. June. PERRY, Walter Harold, 10, Berkeley Avenue, Bishopston, Bristol. 1889. Feb. PETTIT, George Mackness, Frederick Villa, Padua Road, Penge, S.E. 1890. May. PHILLIPS, Henry, 56, Campden Street, Campden Hill. 1891. July. PILBEAM, Francis Newcastle, 28, Rosaville Rd., Fulham. 1891. Oct. Pool, Fred., Industrial School, Mayson Street, Blackburn. 1890. Jan. Poole, James, 2, Trafalgar Place, Kensington. 1888. Oct. POTTER, Ben, Heathfield House, Broadway, Ealing. 1889. Jan. POTTER, Thomas Wickford, Estate Works, Thoresby Park, Ollerton, Notts. 1889. Jan. Poulson, Frederick Thomas, 11, Hobury Street, Chelsen. 1889. Feb. Powell, David Henry William, Surveyor, Pontypool. 1889. Jan. PRATT, Joseph, 12, Kirkdale, Sydenham. 1889. Mar. Press, William James, Rose Villa, Abingdon Street, Burnham, Somerset. 1891. Apr. PROFFITT, John T.

1888. Oct. Proger, John L., 11, Cwrtiy-vie Road, Penarth, Cardiff.

1888. Oct. REAVELL, George, Jun., Alnwick, Northumberland.

1888. Oct. ‡Rains, Joseph, Kettering.

1888. Oct. RICHARDS, Daniel, Elwyn Villa, South Molton. 1890. Apr. #Robertson, John Shirras, 4, Belmont Street, Aberdeen. 1890, Jan. ‡Robinson, John, 79, Lavender Road, Clapham Junction. 1891. July. ‡Ror, Edward Charles, Junr., Rosenaw, Maswell Park, Hounslow, Middlesev. 1888. Oct. #Rourns, Richard, Macs Helew, Carnarvon. 1891. June. ‡Rossiten, Robert Herbert, 15, Sloane Terrace, Sloane Street, Chelsea, S.W. 1891. Nov. Rown, William Thomas Ferdinand, Sanitary Engineer, 41. Old Town Street, Plymouth. 1891. Nov. ±Rowland, Arthur, 5, Cambridge Street, Hall, 1800. May, ±Ruscov, Ernest Henry, 6, Great Castle Street, Regent Street, W. 1889. July. ‡Ryder, Albert Thomas, Dudley Villa, Foster Hill Road, Bedford. 1889. Jan. #Sadlein, Richard J., 6, Cornford Grove, Balham. 1890. Dec. SAISE, Alfred John, Fishwoods, Stanleton, Bristol. 1888. Oct. #SALTER, Thomas, 2, King's Road, St. Leonards-on-Sea. 1890. May. #Saunders, Percy, 46, Jarvis Road, South Croydon. 1890. June. \$\pmax\$Savory, Charles, 6, Holford Place, W.C. 1891. Apr. Schneider, Carl Ferdinand, 14, Cavendish Road, Regent's Park, N.W. 1891. Feb. #Scott, Margaret Eleanor, 133, Abbey Road, South Hampstead, N.W. 1888. Oct. Sedowick, Sydney, 10, Mortimer Street, Cavendish Square, W. 1891. Nov. \$\pmoleq\Senion, John Sidney, 3, Queen's Road, Gosport. 1888. Oct. SEVENOAKS, William, Acre House, Windsor. 1888. Oct. \$Shadrake, W. A., 8, Hind Street, Stainsby Road, Poplar, E. 1890. Feb. \$\pm\$Shaw, Peter, Selham Cottage, Selham, Petworth, Sussex. 1891. Feb. \$\pm\SHAW, W. B., 19, Newcomen Road, Wellingborough. 1889. Jan. #Sheldon, W. E., The Croft, Wantage, Berks. 1888. Oct. #Shore, Ambrose J., 68, Adys Road, East Dulwich. 1889. Apr. \$\frac{1}{2}SHORT, James Allen, Sanitary Department, Wigan. 1891. Nov. #Shufflebotham, William, Roche House, Weston Street, 1889. Apr. \$\frac{1}{2}SIDWELL, Henry Thomas, Elm Cottage, Herne Bay, Kent. 1891. July. \$\frac{1}{2}\text{Simmons, Edward John, 80, Paulet Road, Camberwell.} 1888. Oct. #Simmons, Nimrod, Glendale, Clifton, Bristol. 1890. Jan. SIMPSON, John Thomas, 28, King's Road, Peckham. 1890. May. ‡SIMPSON, John, 30, Belmont Street, Aberdeen. 1891. Nov. Sinclair, Professor William A., M.D., A.M., Howard University, Washington D.C., U.S.A. 1891. Feb. #SMALL, Walter Herbert, Station Road, St Dunstans, Canterbury. 1888. Oct. ‡Sміти, George Allen, Vestry Hall, Hampstead. 1890. June. ‡Smith, Joseph Sidney, 73, Elm Park, Brixton Hill, S.W.

1890. Nov. SMITH, Sydney, Dorset Cottage, Hastings Road, Bewhill.

1891. June. \$\\$MITH, Warren B., 66, College Street, Chelsea. 1890. June. ±SMITH, W. H., 60, Alma Vale Road, Clifton, Bristol. 1888. Oct. \$SOPER, Henry Charles, 108, Park Street, Camden Town, X,W_{\star} 1888. Oct. \$Sortwell, W., 14, Retreat Place, Paragon Road, Hack-1888. Oct. Southfour, The Mayor and Corporation of. 1891. Feb. #Spencer, Julius, 6, Lord Street, Keighley. 1888. Oct. #STANLEY, A. W., Newington, Hull. 1888. Oct. \$\frac{1}{2}\text{Steens, George, 21, Brereton Road, Bedford.} 1888, Oct. 28TEVENSON, John, Surveyor's Office, East Molesey, Surrey. 1891. Feb. \$STOLLERY, William, Dust Depôt, Culvert Road, Battersea. 1890, Apr. Stratford, George Wilkin, 126, Vauxhall Street, Upper Kennington Lane. 1889. Apr. \$STRUTT, Thomas Frederick, 5, Tavistock Street, Covent Garden, W.C. 1890. Feb. \$Sutherland, Walter, 8, Vodas Street, Liverpool. 1890. Nov. Suttle, Alfred, Manor Square, Olley. 1891. Dec. Switzer, Sidney A., 9, Derby Street, Gray's Inn Road, W.C. 1890. Nov. #Sydenham, Sydney, 37, Broad Street, Bath. 1889. Jan. TAIT, James, Roslyn Place, Dean Street, Kilmarnock. 1889. Jan. TATE, William, 29, Kenilworth Road, Kilburn. 1891. June. ‡Taylor, Albert, Vestry Hall, Mount Street, W. 1891. Nov. ‡Taylon, Harry William, Ibstock, Ashby-dc-la-Zouch. 1890. Nov. TAYLOR, Henry Thomas, 10, Higham Street, Everton, Liverpool. 1889. Jan. TAYLOR, James, 17, Oxford Street, Hereford. 1890. May. TAYLOR, James, 10, Mount Pleasant, Waterloo, Liverpool. 1889. Jan. TEMPLE, William Herbert, Scarborough. 1890. May. THOMAS, George. 1888. Oct. ‡Thomas, Thomas, 4, Chandos Road, Redland, Bristol. 1891. Feb. THOMAS, Thomas F., 32, West Square, St. George's Road, Lambeth. 1888. Oct. ‡Thomas, W. K., 16, Berkeley Place, Clifton, Bristol. 1890. Oct. Thompson, Bernard II., Royal Engineers' Office, Windsor. 1891. July. ‡Thompson, Ralph, 29, Hall Hill Bank, Hexham. 1890. Nov. ‡Thorney, William Frederick, 5, Napier Villas, Napier Road, Southsea. 1889. Feb. ‡Thorpe, James, Hobson House, Tytherington, Macclesfield. 1890. June. Tomkins, Alfred, 62, Church Street, Camberwell. 1891. Nov. Tomkys, F. L., Ycovil, Somerset. 1890. Nov. ‡Trigg, Henry John, Martock, Somerset. 1891. July. ‡Trowsdale, Tom James, 12, Leybourne Terrace, Stockton-on-Tees. 1888. Oct. Tuckey, George F., 47, Milk Street, Bristol. 1890. June. Turner, Alfred, 33, Wordsworth Road, Penge. 1891. Mar. ‡Twaits, James, 21, Latham Street, Poplar, E.

1890. Dee. VEASEY, Thomas Frederick, ASSOC.M.INST.C.E., care of O. H. Veascy, Bridge House, Huntingdon. 1891. June. ‡VINCENT, George Edwards Bussell, 55, Mayfield Road, Dalston. 1891. Mar. ‡Waddington, Thos. W., 8, Albert Street, Padiham. 1890. June. #WALKER, Francis, 23, Woodstock Road, Shepherd's WALLACE, Miss J., 6, Hyde Park Gardens. 1889. Nov. Wallas, Irwin Clarke, 37, Torbay Road, Willesden Lane, N.W. 1890. Nov. Wallis, Thomas Wilkinson, Surveyor, Louth, Lincoln. 1890. May. ‡WANSBROUGH, Cecil Shartman, Arlington Villa, Barrowin-Furness. 1888. Nov. Watts, George Nelson, 147, High St., Notting Hill, W. 1890. Jan. ‡WATTS, Gerald, Local Board of Health, St. George's, near Bristol. 1890. Feb. ‡WATTS, William Frederick, Bitterne, Southampton. 1888. Oct. ‡Webb, James A., Town Hall, Fulham. 1890. Nov. ‡Weeks, Alfred James, 140, Lavender Hill, Clapham Common. 1888. Oct. ‡Wells, G. F., 37, Prospect Street, Hull. 1890. Dec. WHEELER, John, M.D., 35, Oxford Road, Kilburn, N.W. 1891. Feb. ‡WHITE, William Owen, 8, Albert Street, Banbury. 1891. June. ‡WIIITOME, Philip Alfred, The Chestnuts, Rothesay Road, Bedford, 1888. Oct. ‡Wilkinson, W., Ford Street, Derby. 1890. Nov. #WILLBOND, George Baines, Guildhall, Nottingham. 1891. Mar. WILLIAMS, Llewellyn A., 80, Easton Street, High Wycombc. 1889. Mar. ‡Wilson, Charles Turle, 37, Burney Street, Greenwich, 1889. June. ‡Wilson, John, Town Hall, Kensington. 1889. July. ‡Wilson, William, Grasington Terrace, South Shields. 1891. Feb. ‡WINDLE, Thomas, 8, Tennis Street, Burnley. 1888. Oct. #Winsen, F. Sawyer, 52, Buckingham Palace Road, S.W. 1889. Apr. #WINTER, Edward, 19, King's Gardens, W. Brighton. 1891. July. ‡Wood, Charles Bruce, 37, Irene Road, Parsons Green, S.W.1889. Jan. Wood, Peter, 177, Ashmore Road, Paddington. 1889. July. Woodcock, Henry, 16, Steelhouse Lane, Birmingham. 1891. Nov. ‡Woodeson, William, 1a, Charles Street, Pendleton, Manchester. 1891. Mar. ‡Woodhouse, Tom, 25, Worsley Road, Leytonstone, E. 1889. Mar. ±Woonton, James, 64, Anthony Street, E. 1891. July. #Worrall, Ernest, 64, Rappart Road, Seacombe. 1891. Nov. #Wornall, William Henry, 208, High Street, Harborne. 1890. May. #WRACK, Thomas Philip, 15, Great Alie Street, Whitechapel. 1889. Jan. ‡WRIGHT, John, Junr., 3, Surbiton Park Terrace, King-

ston-on-Thames.