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KEIGHLEY
URBAN SANITARY AUTHORITY.

THE
Annual Report

FOR THE YEAR 1893,

BY

William Scatterty, M.A., M.B., C.M.

Medical Officer of Health ;

AND

REPORT of the SANITARY INSPECTOR.

KEIGHLEY :

BOROUGH PRINTING WORKS, HANOVER STREET.

SANITARY COMMITTEE.

(Meets every alternate Wednesday, at 7 p.m.)

CHAIRMAN :

MR. ALDERMAN ICKRINGILL.

MR. ALDERMAN HOLMES.

MR. COUNCLR. J. H. CRAVEN. MR. COUNCLR. C. H. FOULDS.

„ ECROYD. „ H. C. LONGSDON.

„ EMMOTT. „ NEWTON.

MEDICAL OFFICER OF HEALTH :

WILLIAM SCATTERTY, M.A., M.B.

SANITARY INSPECTOR :

MR. W. C. HALLER.

DEPUTY SANITARY INSPECTOR.

MR. WILLIAM MITCHELL.

THE
TWELFTH ANNUAL REPORT
 OF THE
MEDICAL OFFICER OF HEALTH
 FOR THE
BOROUGH OF KEIGHLEY.

TO THE MAYOR, ALDERMEN, AND COUNCILLORS.
 GENTLEMEN,

In accordance with the Order of the Local Government Board, March, 1891, Section 14, Art 18, I beg to lay before you my Report for the year ending Dec. 31st, 1893.

Details of Borough.—The Borough of Keighley is situate in the valley of the River Aire, about a mile above its confluence with the River Worth. It is built upon what geologists call the millstone grits—a very hard sand stone found in the coal measures. The town is intersected by the Worth and its tributary, the North Beck. The Borough is a circular one with a radius of one mile, the circle being, however, incomplete at one part where the Township of Bingley comes within the one mile radius.

Area in Acres	... ..	1,742
Height above sea level	... ..	366ft.
Mean Animal Temperature	... ..	49·2°F
Houses Inhabited at the Census of 1891		6,415
„ Uninhabited	„ „	144
„ Building	„ „	85
Population	„ „	30,811
New Houses occupied since last Census		218
Houses unoccupied at the end of 1893		150
Estimated Population for 1893	... ..	32,070
Rateable Value within the Borough		£91,382 16s 3d.

Births.—There were 922 Births registered during the year, being 474 males and 448 females—an increase of 15 upon last year. The illegitimates numbered 45, compared with 26 in 1892. The Birth-rate equals 28·7; last year it was 28·4. The natural increase in the population, by excess of Births over Deaths, was 292, compared with 320 in 1892.

Deaths.—There were registered during the year 630 Deaths, of which 345 were males and 285 females. Excluding 19 non-municipal paupers in the Infirmary, and 1 small-pox case brought from Bingley, the number of Deaths in the Borough was 610. To this, however, should be added 6 Deaths which occurred in the Small-Pox Hospital, making a total of 616 belonging to the Borough. This gives a corrected Death-rate of 19·2, as compared with 18·0 last year.

Zymotic Deaths.—The seven principal Zymotic Diseases—Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Fever, and Diarrhœa—are responsible for 72 Deaths, compared with 55 last year. Diarrhœa was unusually prevalent during the summer and autumn, and to that cause 18 Deaths were attributed.

Zymotic Death-rate equals 2·2. Last year it was 1·7.

Table I.—Showing number of Births, Deaths, Zymotic Deaths, and Death-rates from 1882 to 1893 inclusive:—

Year.	Estimated Population.	Births.	Deaths.	Zymotic Deaths.	Death-Rates.
1882	25,883	768	567	59	21·9
1883	26,404	724	536	39	20·3
1884	26,935	865	586	54	21·7
1885	27,477	781	560	53	20·3
1886	28,030	878	567	42	20·2
1887	28,594	914	666	100	23·3
1888	29,168	849	637	117	21·8
1889	29,756	878	602	58	20·2
1890	30,354	989	707	91	23·3
1891	30,965	970	664	66	21·4
1892	31,530	907	601	55	19·0
1893	32,070	922	616	72	19·2

Corrected.

Mortality in Wards.—A comparison of the Death-rate in the different Wards shows the highest mortality in the East, Central, and South Wards, and lowest in the North-West, North-East, and West Wards,

In reply to questions put in Council Meetings regarding the high Death-rate in the South Ward, I have carefully investigated the Death-rates in the various Wards for the past ten years, with the result that the record for the South Ward is better on the average than the past year would seem to indicate. A large proportion of the house drains in the South Ward are in an unsatisfactory condition, but so far I have been unable to find any specially insanitary area in that Ward.

Table II.—Showing the Death-rates in the different Wards for the past ten years :—

Year.	N West.	Central.	East.	N. East.	West.	South.
1883	14·5	15·2	16·9	19·9	19·3	18·2
1884	11·5	17·6	20·2	25·0	18·1	26·2
1885	12·7	14·2	22·2	22·8	20·4	23·5
1886	15·2	15·2	21·8	16·8	18·9	21·5
1887	14·2	16·1	28·9	25·9	29·0	19·4
1888	12·9	15·9	23·5	28·1	22·6	18·1
1889	15·1	12·8	20·5	22·2	22·8	20·9
1891	15·0	23·2	20·8	21·1	22·3	19·3
1892	12·8	19·6	20·8	17·0	19·0	16·6
1893	15·0	18·4	17·8	15·7	16·4	20·1

An analysis of these rates give the following average result :—

N.W.	C.	S.	W.	E.	N.E.
13·89	16·82	20·38	20·88	21·34	21·45

A comparison of these Death-rates with the Birth-rates shewn in the following table, shows the Death-rate is lowest in those wards where the Birth-rate is also lowest.

Table III.—Showing Population, Births and Birth-rate, Deaths and Death-rate, in the Wards for the quarters of 1893 :—

Wards.	Estimated Population.	Births.	Birth Rate.	Deaths 1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Death Rate.
Central	4,110	87	21·1	19	20	18	19	18·4
East	5,210	177	33·9	20	22	26	25	17·8
N. East	5,150	153	29·7	23	21	16	21	15·7
N. West	5,660	143	25·2	22	24	17	22	15·0
West	5,580	169	30·2	30	18	20	22	16·4
South	6,180	193	31·2	38	24	40	32	20·1
Work Ho.				16	16	11	21	

Infant Mortality.—In estimating the mortality of the Borough, we must take into account the Birth-rate. Now last year our Birth-rate was 28·4, this year 28·7. We have

had, therefore, a slightly larger number of children under one year of age this year than last. On the supposition, then, that the whole population of the Borough is increasing at an uniform rate, and that infants bear the same proportion to the whole population now as formerly, the infant mortality stands at the same figure as last year, viz., 158. Of 907 children born in 1892, 144 died during their first year, while in 1893, of 922 born, 146 died within the same period.

Although this mortality is not high compared with some towns, for example, the 33 large English towns, whose infant mortality averages 165, still there is no doubt but that in a manufacturing town such as this, where mothers go out to work and infants are brought up artificially, many infant lives are sacrificed which might otherwise have been saved.

Ages of Zymotic Deaths.—As pointed out in last year's report, the majority of Deaths from Infectious Diseases occur in children under 5 years of age. Of Zymotic Deaths this year, 41 were under 5, and 26 over 5. To this must be added 6 Keighley cases dying in the Joint Hospital, and 1 Bingley case dying in the Borough must be deducted, making the total for the Borough 72 Zymotic Deaths. Last year there were 55 Zymotic Deaths, 38 being under 5 and 17 over.

Uncertified Deaths.—There seems to be a steady increase in the number of deaths registered without the cause of death having been certified by a medical man or by the coroner.

43	Deaths were uncertified in	1890,	a percentage of	6.0
53	" "	1891,	" "	7.9
51	" "	1892,	" "	8.6
62	" "	1893,	" "	9.8

Thus it may be seen that no medical certificate was given in almost 1 in every 10 Deaths registered in the Borough.

Inquests.—12 Inquests were held during the year, compared with 10 in 1892, and 7 in 1891.

Small-Pox.—During the past year 72 cases have occurred in the Borough. Since 1888 Small-Pox has been unknown in the town, and there can be no doubt but that this last epidemic has been largely spread throughout the country by the vagrant class. No fewer than 15 different times has the disease been brought into the Borough by vagrants and common lodging-house inhabitants. This, I think, should prove the necessity for additional powers to restrain those migratory classes from spreading infection during the prevalence of an epidemic.

Although none of the Wards escaped the disease, its distribution in the town was very unequal. The two principal foci of infection were the West and North-East Wards. In these were respectively 24 and 26 cases. The East and South Wards had 2 cases each, and the Central and North-West 9 cases each.

For the first two months of the year, cases were treated in the Old Baptist School in Burlington Street, but this temporary arrangement was done away with when the new iron buildings were opened at Morton Banks on the 24th March. The need of better isolation than could be secured in the Burlington Street temporary Hospital was clearly recognised by the Sanitary Committee, who pushed forward the purchase of land at Morton Banks, along with the Bingley Commissioners, Bingley Township Local Board, and Keighley Rural Sanitary Authority. A most suitable site of about 16 acres was secured about $\frac{3}{4}$ mile beyond the Borough boundary. The site is central for the various Authorities constituting the Joint Board, and a very comfortable iron Hospital has been erected without opposition from any quarter—the nearest habitation being nearly $\frac{1}{2}$ mile distant. The convenient situation, south-west aspect, perfect isolation, and excellent water supply leave little more to be desired for an Infectious Hospital. Whether the welfare of the patient or the security of the public generally be considered the more important, the Joint Board are to be congratulated upon the provision they have made.

A few details of the epidemic, based on an analysis of the 72 cases may be found instructive:—

(a) Comparison of numbers

31 were vaccinated
41 „ unvaccinated

(b) Comparison of age

1 vaccinated	}	were under 10 years of age.
24 unvaccinated		
3 vaccinated	}	were under 20 years of age.
33 unvaccinated		

(c) Mortality and age at Death

1 vaccinated, died, age 20
6 unvaccinated, died, ages 5, 6, 8, 8, 23, 24
Death-rate, vaccinated, 3%
„ unvaccinated, 15%


(d) Average duration of illness

Vaccinated	...	...	36 days
Unvaccinated	...	...	53 „

RECORD OF SMALL-POX CASES.

TABLE IV.

No.	Address.	Sex.	Age.	Vaccinated.	Character of Attack.	Duration.	Where Treated.
1	Union Infirmary	M	44	Yes	Confluent	60 days	Burl'gt'n St. H.
2	Workhouse	M	38	"	Discrete	42	"
3	"	M	40	"	"	45	"
4	"	F	31	"	Confluent	53	"
5	Beck Street	F	2	No	"	42	"
6	Workhouse	M	8 mo	"	Discrete	53	"
7	Beck Street	M	5	"	"	42	"
8	Lodging House	M	22	Yes	"	42	"
9	"	M	14	"	"	40	"
10	Mornington St.	F	5	No	"	42	Home
11	"	M	6	"	"	42	"
12	Thomas Street	F	3	"	"	42	"
13	Workhouse	M	40	Yes	"	36	"
14	Cavendish Street	M	8	No	Confluent	Fatal 4 days	Home
15	Westgate	M	34	Yes	Discrete	61	Joint Hospital
16	West Lane	F	12	No	"	50	"
17	Becks Road	F	30	Yes	"	28	"
18	Lodging House	M	61	"	"	53	"
19	"	F	26	No	Confluent	60	"
20	Russell Street	F	3	"	"	101	"
21	West Lane	M	9	"	Discrete	50	"
22	Russell Street	F	8	"	Confluent	Fatal 6 days	"
23	"	M	50	Yes	Discrete	26	"
24	Turkey Street	F	2	No	Confluent	54	"
25	Emily Street	M	20	"	"	49	Home
26	Park Terrace	F	10	"	"	63	"
27	"	M	6	"	"	63	"
28	Turkey Street	F	6	"	"	Fatal 11 days	Joint Hospital
29	Frederick Street	M	25	Yes	Discrete	41	"
30	Turkey Street	M	5	No	Confluent	51	"
31	"	F	18	"	"	81	"
32	West Lane	F	5	"	"	71	"
33	Lodging House	M	48	Yes	Discrete	17	"
34	"	M	45	"	Semi-Confluent	49	"
35	Lawkholme Lane	M	19	No	Confluent	52	"
36	Malvern Place	F	11	"	"	64	"
37	Park Terrace	F	9	"	"	46	"
38	"	M	5	"	"	48	"
39	"	M	11	"	"	63	"
40	"	M	6	"	"	51	"
41	"	F	15	"	"	49	"
42	Brigg Street	F	27	Yes	Discrete	24	"
43	Church Street	F	7	No	Confluent	61	"
44	Park Terrace	F	21	Yes	Discrete	18	"
45	Sun Street	M	30	"	Semi-Confluent	52	"
46	Grape Street	F	32	"	Discrete	29	"
47	Park Terrace	F	21	"	"	29	"
48	Church Street	M	37	"	"	30	"
49	Oastler Street	M	7	No	Semi-Confluent	29	"
50	Cavendish Street	M	23	Yes	Discrete	28	"



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BOROUGH OF KEIGHLEY.

NOTIFICATION OF INFECTIOUS DISEASES.

Number of Cases reported, number of Houses in which they occurred, and number of Deaths, distinguishing Diseases and Wards, for the year ending 31st December, 1893.

DISEASE.	AGE.	CENTRAL WARD.			EAST WARD.			NORTH-EAST WARD.			NORTH-WEST WARD.			WEST WARD.			SOUTH WARD.			TOTALS for BOROUGH		
		Cases.	Houses	Deaths	Cases.	Houses	Deaths	Cases	Houses	Deaths	Cases	Houses	Deaths	Cases	Houses	Deaths	Cases	Houses	Deaths	Cases	Houses	Deaths
Small Pox	Under 5		7		1	1		2	16	1	3	6	4	11	1	2	11	43	1			
	5 upwards	9		1	1		24		2	6	1	20	1	1	1	1	61		6			
Scarlet Fever	Under 5	6		1	2	3		2	7		12	13	9	11	2	10	16	1	41	56	4	
	5 upwards	2			1		5		1	5		5				9			27		1	
Diphtheria	Under 5	1			1	2	3	4		1	1	4				7	14	4	13	31	8	
	5 upwards	1			2	3	1	1		1	5		4	4		8			21		2	
Membranous Croup	Under 5	1	1	2	1	1	1	1					4	4	1	1	2	1	9	9	5	
	5 upwards															1		1	1		1	
Erysipelas	Under 5		8		2	6		5		1		5	1	6		9	9		4	39		
	5 upwards	8			4		5	5		4			9			9		1	39			
Typhoid Fever	Under 5		2		6		6			2	7					5			2	30		
	5 upwards	2			6	1	6	3	5			7	7	4	4	5	5	5	31		13	
Puerperal Fever	Under 5															3			8	8		
	5 upwards									2	2	3	3		3				8			
Chicken Pox	Under 5	9	8	18	21	6	6	13	11	5	2	12	11			63	59					
	5 upwards	3		8		2		1				5				19						
TOTALS...	Under 5	17	34	2	25	41	3	14	45	3	32	48	1	23	31	62	6	143	275	18		
	5 upwards	25		1	22	2	43	7	28	48	1	48	45	5	41	7	207	275	23			

Cases reported, with number of Deaths, distinguishing sex and age, for the year ending December 31st, 1893.

AGES	SMALL POX.		SCARLET FEVER.		DIPHThERIA.		MEMBRANOUS CROUP.		ERYSIPELAS.		TYPHOID FEVER.		PUERPERAL FEVER.		CHICKEN POX.		TOTAL.											
	Cases		Deaths		Cases		Deaths		Cases		Deaths		Cases		Deaths		Cases		Deaths									
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.								
0-1	1		1	2	1				1	1								17	2									
1-5	5	5	22	16	3	3	10	2	4	5	2	3	1	1				126	13									
5-10	6	8	2	4	11	4	2	2	1	1								59	9									
10-15	3	3		3	5		1											22	2									
15-25	12	6	2	1		2	4											44	7									
25-35	4	7			1													37	4									
35-45	6			1		2												22	3									
45-60	3	2																14										
60 upwards	1																	9	1									
TOTAL	41	31	4	3	31	37	3	2	14	20	4	6	7	3	4	2	18	25	13	20	3	9	8	1	39	41	350	41

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
RECORDS OF THE LABORATORY OF
ORGANIC CHEMISTRY

No.	Name	Date	Initials	Remarks
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No.	Address.	Sex.	Age.	Vaccinated.	Character of Attack.	Duration.	Where Treated.
51	Beecroft Place	F	25	Yes	Semi-Confluent	54	Joint Hospital
52	Lodging House	M	45	No	"	40	"
53	Chapel Lane	F	21	"	Confluent	72	Home&Hospital
54	"	M	18	"	"	62	"
55	"	M	20	"	"	57	"
56	Oakworth Road	M	16	"	Semi-Confluent	32	Joint Hospital
57	Malvern Place	F	46	Yes	Discrete	26	"
58	Lodging House	M	52	"	"	22	"
59	"	F	46	"	"	26	"
60	Louisa Street	F	20	"	Hemorrhagic	Fatal 9 days	"
61	Church Street	M	5	No	Confluent	" 11 "	"
62	Fruit Street	M	24	"	"	" 19 "	"
63	Hanover Street	M	25	"	"	57	"
64	Highfield Lane	M	22	Yes	Discrete	41	"
65	Highwell Street	M	29	"	"	29	"
66	Ingrow Lane	M	4	"	"	21	Home
67	Gate Street	F	34	"	"	26	Joint Hospital
68	"	F	9	No	Confluent	59	"
69	"	F	7	"	"	51	"
70	Princess Street	M	23	"	"	Fatal 11 days	"
71	Wellington Street	F	19	Yes	Semi-Confluent	50	Home&Hospital
72	Arthur Street	F	9	No	Discrete	35	Joint Hospital

In Table IV. the Small-Pox cases are simply designated by number, the reason being that once the object of the Notification Act had been accomplished, the Sanitary Committee did not think they were justified in publishing the names of private individuals.

No case of Small-Pox has occurred in the Borough since the beginning of September, and it is to be hoped that the measures adopted by the Sanitary Committee, and promptly executed by the Sanitary officials, may be rewarded by the disease being effectually stamped out. The facilities for the rapid removal of patients and the disinfection of the clothes, bedding, &c., in the steam disinfecting apparatus, have been powerful agents in suppressing the disease.

The disinfector chosen by the Joint Board is Washington Lyon's Patent, made by Manlove, Alliot, & Co., Nottingham. The principle involved in this machine is the destruction of the infective germs by the introduction of steam under high pressure into a specially constructed apparatus. The efficient working of the disinfector depends on the fact that it is a steam-jacketed chamber, with the steam in the jacket at a pressure and temperature higher than that in the chamber among the articles to be disinfected. By this arrangement the steam used for disinfecting is kept dry and free from

condensation. With the steam in the jacket at 30lbs. pressure, and that in the chamber at 20lbs, a temperature of 260°F. can be obtained, which is sufficient to destroy all infective organisms.

Chicken-Pox.—In order to secure the earliest information regarding all suspicious cases of Small-Pox, I urged the Sanitary Committee to recommend that Chicken-Pox be made notifiable during the course of the epidemic. This was thought advisable because slight cases of Small-Pox were being mistaken for Chicken-Pox with very unfortunate results. To one such mistake there were traced nine cases of Small-Pox and two deaths. As a result of the recommendation the Notification Act was applied to Chicken-Pox for a period of six months.

Measles.—The number of deaths from Measles this year greatly exceeds that for 1892, viz., 13 against 3. The general statement that zymotic diseases are more fatal under than over 5 years of age is well borne out in the case of Measles, where 12 of the 13 deaths were in children under 5.

Scarlet Fever.—The number of cases reported is far fewer than last year, but the mortality is higher, namely, 68 cases and 5 deaths, compared with 131 cases and 6 deaths in 1892.

Diphtheria.—This disease shows the same degree of prevalence as last year, but the percentage of deaths is very considerably higher, viz., 34 cases and 10 deaths, compared with 31 cases and 2 deaths in 1892.

Membranous Croup.—Ten cases with 6 deaths occurred during the year; last year there were 7 cases with 5 deaths.

Whooping Cough.—Four deaths were registered as due to this complaint. Last year 5.

Typhoid Fever.—Although the number of cases reported are much fewer than last year, the percentage of deaths is considerably more than doubled. In 1892 there were 80 cases with 12 deaths. This year 33 cases with 12 deaths. In almost every instance some sanitary defect was found in the infected houses, but whether this was coincidence or cause and effect is difficult to determine. The typhoid cases seem to have been very evenly distributed through the borough. No suspicion attached to any milk supply. It might be advisable at this point, however, to again draw attention to the Otley Street well, which analyses have shown to be

very frequently polluted, and which, if used at all, should be used with the greatest possible caution. Seeing the town's water can be laid to the houses using this well the inhabitants would be acting wisely were they entirely to discontinue the use of water so liable to pollution.

Cholera.—During the Autumn two fatal cases of Cholera occurred in the borough. The person who first succumbed to the disease was attended by her two sisters and her sister-in-law. These were in turn attacked, two of them dying (one outside the borough). The most careful investigation failed to trace the source of infection. Dr. Klein, however, who examined the specimens sent at the request of the Local Government Board, declared the disease to be indistinguishable from the Asiatic Cholera. So far as possible bed and bedding were burned, and thorough disinfection of the infected houses carried out.

Diarrhœa.—Eighteen deaths from this disorder occurred in the course of the year—16 being during the 3rd quarter. All parts of the borough seem to have suffered equally. The extreme heat of the summer, both by its direct action on the system, and by hastening the decomposition of fish and fruit, was in all probability the chief cause of the excessive prevalence of Diarrhœa during the months of July, August, and September.

Respiratory Diseases.—While the warm summer tended to increase the mortality from Diarrhœa and kindred disorders it, at the same time, must be credited with the diminution in the number of deaths from diseases of the respiratory system. Last year the number of deaths from Bronchitis and Pneumonia was 182, this year the number falls to 127.

Notification of Infectious Diseases.—This, the fourth year during which the Act has been in operation, has brought to light 350 cases of Infectious Disease. In this number is included 82 cases of Chicken-Pox, so that deducting these the year's record compares favourably with previous years, viz., 611 in 1890, 215 in '91, 304 in '92, and 268 in '93.

In every instance the infected houses were examined by the Sanitary Inspectors, and frequently by myself as well, full particulars being given regarding isolation and the use of disinfectants.

In a great many instances defects were found in the drains, and steps were taken to have these remedied.

Details of cases notified, and of the work done in connection therewith, will be found in the accompanying Table B and in the report of the Sanitary Inspector.

The number of cases of Infectious Diseases occurring annually furnishes a strong argument in favour of increased hospital accommodation. The Sanitary Committee are fully alive to this fact, and as part of the Joint Hospital Board are pushing forward the erection of a permanent isolation hospital sufficiently large, we trust, to cope with any epidemic with which the town may be visited.

Water Supply.—During the past year new filter beds at Oldfield have been in course of formation. In addition to the ordinary process of filtration, the water is passed through beds of Polarite, or magnetic oxide of iron. This is said to extract the organic matter, and by hardening the water lessens its tendency to act on lead piping. Two filter beds and one storage reservoir have been completed, and others will be finished during the current year.

Sewage Disposal.—At Marley, the sewage farm is nearing completion. Here 42 acres are laid out for the treatment of sewage on the principle of intermittent downward filtration. The construction of the out-fall sewer is also well advanced, so that in all probability the sewage will be turned on to the prepared soil some three months hence.

Inspection of Houses.—In addition to periodic visits of inspection, a systematic examination of all the common lodging-houses was made by the Sanitary Inspector and myself. With one doubtful exception they were found to be in a satisfactory condition.

The bake-houses and slaughter-houses were also frequently inspected. With regard to some of the latter, there was not that extreme cleanliness that could be desired, but I trust steps are being taken to overcome the defects.

Before concluding my Report, I beg to make the following recommendations :—

That all new houses be fitted with water closets.

That so far as possible attempts be made to introduce (where not already done) into all existing houses the water carriage of sewage instead of the tub system.

That the cleansing of all private streets be undertaken by the Sanitary Department.

The Special Acts and Powers of the Council with respect to the following matters are now printed in pamphlet form, viz., Removal of Nuisances, Cleansing of Streets, Prevention of Diseases, Water-closets, Privies, &c., Offensive Trades, Lodging Houses, Slaughter Houses, Milk Shops and Cow Sheds, &c., &c.

The following Acts and parts of Act have been adopted by the Keighley Corporation, viz.,

- (a) Infectious Disease (Notification) Act, 1889, as from 1st January, 1890.
- (b) Infectious Disease (Prevention) Act, 1890, as from 2nd February, 1891.
- (c) Public Health Acts Amendment Act, 1890, Parts 2, 3, and 5, as from 2nd February, 1891.

WILLIAM SCATTERTY.



BOROUGH OF KEIGHLEY.

SANITARY INSPECTOR'S REPORT.

*For the Year ending the 31st day
of December, 1893.*

TO THE CHAIRMAN AND MEMBERS OF THE SANITARY
COMMITTEE.

GENTLEMEN,

I have now pleasure in submitting to you my third Annual Report on the Sanitary work of the Borough for the year ending the 31st day of December last.

INFECTIOUS DISEASES (NOTIFICATION) ACT.

The following list will shew the number of cases of Infectious Diseases reported under this Act during the year, with the number of houses in which such diseases have occurred, but omitting the number of deaths, which will be found in the Medical Officer's Report :—

Small-pox	72	Cases in	43	Houses.
Scarlet Fever	68	„	56	„
Typhoid Fever.....	33	„	30	„
Diphtheria	34	„	31	„
Erysipelæ	43	„	39	„
Membranous Croup	10	„	9	„
Puerperal Fever ...	8	„	8	„
Cholera	2	„	2	„
Total	270 Cases in 218 Houses.			

In the previous year (1892) there were 304 cases reported in 244 houses.

This is the fourth year the Act has been in force in the Borough, and the number of cases reported during the year under review, compare very favourably with the average number of cases reported during the previous 3 years, if we exclude the recent small-pox epidemic, as may be seen from the following figures :—

Small-pox	(During 1892 only)	8 Cases.
Scarlet Fever	Average for 1890-92	217 „
Typhoid Fever	„ „	63 „
Diphtheria	„ „	43 „
Erysipelas	„ „	43 „
Membranous Croup	„ „	3 „
Puerpural Fever.....	„ „	4 „

Previous 3 years' average 381 Cases.

The Small-pox epidemic which commenced in Nov., 1892, reached its height in the following May, and was stamped out entirely four months later. The number of cases reported each month were as follows :—Nov. 1, December 4, January 4, February 5, March 9, April 15, May 27, June 6, July 1, August 3, and September 2. The Burlington Street Lodging-House, which was converted into a temporary hospital at the commencement of the outbreak, was kept in use until the first week in April when it was closed, and the patients were removed to the Hospital erected at Morton Banks.

Altogether 23 cases were treated in the Burlington Street Hospital, 7 of them being admitted from the Workhouse, 5 from Bingley, and 1 from Eastburn. The cost of this temporary provision was £249 3s. 7d., of which we recovered from the Guardians £83 12s. 11d.; from the Bingley Improvement Commissioners, £56 15s. 7d.; from the Keighley Rural Sanitary Authority, £11 7s. 1d.; and from the Joint Hospital Board, £4 13s. 3d.; making our proportion of the expenditure to be £92 14s. 9d.

Of the 72 cases of Small-pox reported during the year, 4 occurred in the Workhouse, 12 in Common Lodging-Houses, and no less than 22 in Dalton Lane and Worth Village district. It is very much to be regretted that the first two cases in Dalton Lane could not be persuaded to go to the Hospital, as within 21 days after these cases were reported no less than six fresh cases occurred in the two houses on either side of the first infected one, 5 of the cases being in one house, and four others were reported in the immediate neighbourhood, making in all 10 cases in 21 days; and others rapidly followed. Probably the persons in charge of the first

2 cases did all they could to prevent the spread of the disease short of allowing the patients to be removed, but the results confirm what has over and over again been proved, viz :— that isolation in an ordinary dwelling-house is little short of an impossibility. I am, however, glad to say that out of the whole number of cases reported, only nine refused to be removed to the hospital. In two instances, through ignorance or otherwise, cases were concealed, and the parties responsible were required to make a public apology ; one man was found wandering about the streets with the disease upon him, and another I discovered on the Fair grounds, and had him immediately removed to the Hospital.

Every possible precaution was taken to prevent the disease spreading. Immediately a case was reported, I forthwith visited the house and arranged, if possible, to have the patient moved to the hospital without delay, the houses were then stoved throughout with sulphur, and the infected rooms were stripped and limewashed. In this work we used 75 gallons of Carbolic or other disinfecting fluids, about 3 tons of Disinfecting Powder, and 6 cwts. of Roll Sulphur. We also gave away about 2 cwts. of Carbolic Soap to people who appeared too poor to purchase it. Altogether 240 rooms were stoved with sulphur, the greater part of this work being done by Mr. Mitchell, and to the best of my knowledge, in only one instance was damage done by the method employed, and that would not have occurred had the rooms been opened at the end of 4 hours in accordance with our instructions.

In one instance, furniture, &c., was removed from a small-pox infected house, without previous disinfection, and legal proceedings were by your instructions taken against the offender, who was ordered to pay a fine of £2 and costs.

The Borough has been free from Small-Pox since the 14th day of September last.

Of the other cases of Infectious Diseases contained in the list, none, I think, call for special observation, with the exception of the 2 cases of Cholera which occurred at Hey's Gardens, South Street, in October last. Both the Medical Officer of Health and I made a careful examination of the premises and the surrounding neighbourhood, but were unable to trace the origin of the first case. The drains were found to be properly trapped and in good order, nor yet were we able to discover any other insanitary conditions. All houses in the immediate neighbourhood were kept under observation, as were also all persons who had been in direct communication with the infected persons. The beds used by

the patients were destroyed, both houses were stoved, disinfected, and cleansed throughout, and here I am pleased to say our experience of that disease terminated.

In all cases of infectious disease, the infected houses are visited, the drains and sanitary arrangements of the premises are examined, and steps are taken to remedy any defects that may be discovered. Disinfectants are always supplied free of charge to all persons who apply for same at my Office.

NUISANCES.

The work accomplished under this heading may be summarised as follows :—

Nuisances left on books last year, now abated	37
Number reported	759
Notices served for their abatement	142
Letters written re Nuisances only	235
Number abated without Legal Notice	617
Total number abated	766
Left on books unabated at end of year	30

The following list will show the nature of the Nuisances abated, together with a comparison with the previous year's figures :—

	1893.	1892.
Defective house, yard, or slopstone drains	400	508
Insufficient drains	39	21
Blocked street gully drains	154	77
Filthy privies and middens	37	41
Insufficient privy accommodation	8	15
Dilapidated privies to repair	67	10
From keeping of swine	2	4
Miscellaneous nuisances	32	13
Totals	759	715

Our staff of workmen have alone trapped and dis-connected slopstone waste pipes and drains at 367 houses, 350 gullies or other earthenware traps, and 230 syphon traps to lead waste pipes being used. The cost of this work was £497, upon which the usual 5 per cent. was charged for superintendence.

Several midden privies have been altered to either pail or water closets, and I hope at the close of another year to be able to report that the remaining few have disappeared. A few privies have been altered from the pail to the w.c. system, and I notice a slight increase in the number of new privies built on the water carriage system.

In two instances I have prohibited the keeping of swine in too close proximity to dwelling-houses, and the new Bye-Laws relative to the "Removal of Nuisances and Keeping of Animals" which were framed by you in Nov. last—a copy of which I append—will enable us to accomplish more work of this description another year.

With respect to Smoke Nuisances, you have, in consequence of the recent coal war, somewhat relaxed your customary vigilance, and allowed a little more latitude than usual, but I had not occasion to report any serious nuisance. Letters of caution were sent to four firms, which had the desired effect.

REFUSE DISPOSAL.

The quantity of refuse collected was as follows, viz:—

Dry Ashes from Tubs	...	6,416 loads
Excreta from Pails	... ..	2,663 ,,
Midden Stuff	... ..	680 ,,
		<hr/>
Totals	...	9,759 loads

The figures for 1892 were:—

Dry Ashes from Tubs	...	6,479 loads
Excreta from Pails	... ..	2,603 ,,
Midden Stuff	... ..	640 ,,
		<hr/>
Totals	...	9,722 loads

During the year, about 102 privies and 110 ashplaces have been erected on the pail system.

The dry ash-tub places number about 3,150, all of which have been whitewashed, the work being let by contract.

The sale of excreta during the past year realized £34 6s. In 1892 we made no charge for this stuff, and in 1891 the amount realized was only £7.

We have also collected and destroyed the carcasses of 66 pigs, dead from swine fever; 6 dogs; and 5 cwts., 18 lbs. of bad fish; also 30 mattresses, 21 beds, 34 pillows, and 43 sheets removed from the temporary Small-pox Hospital and houses in which small-pox had occurred.

STREET SCAVENGING.

At the end of my report I append a list of the streets which are swept by this department with the number of times each has been cleansed per week.

The length of streets swept average $16\frac{1}{2}$ miles per week, and all gullies in both public and private streets are cleansed by our workmen.

Number of Loads of Sweepings collected	...	1,825
„ „ Water put on Streets	...	1,717
„ „ Snow Removed	... ..	1,233
„ „ Sand & Ashes put on Street		178

The figures for the previous year were :—

Sweepings collected	... ..	1,902 loads
Water put on Streets	... ..	1,415 „
Snow Removed	... ..	854 „
Sand and Ashes put on Street	... ..	428 „

The opening and cleansing of blocked street gully drains in public streets is undertaken by the Highways Department, as is also the cleansing of all such public streets and roads as are not paved.

SLAUGHTER HOUSES.

We have the same number of Registered Slaughter Houses as last year, viz—17, all of which are kept in fairly good order.

Messrs. John Mitchell, John Ward, Samuel Midgley and John Chester constituted the Jury of Butchers for the past year, but their services were never called into requisition, and they have been re-elected to serve another year.

CONTAGIOUS DISEASES (ANIMALS) ACT.

Swine Fever.—I regret to have to report the most serious outbreak of Swine Fever that has occurred in the Borough since the Act came under your control. We had during the year ten separate outbreaks, affecting 73 pigs, of which 66 either died or were killed by request of the owners. The pigs were mostly from 3 to 6 months old, and with one or two exceptions all had been imported from Bedford. We communicated with the Bedford Authority, drawing their attention to this fact, and they replied that they were not aware of the existence of the disease in their district.

The execution of these Acts, and the orders made thereunder, entail a great deal of work, as all pigs on infected premises have to be kept under strict observation, and weekly reports as to their condition have to be sent to the Board of Agriculture. All owners of pigs in infected places have to be

served with notices declaring their premises closed, and prohibiting the movement of swine, and duplicate copies of all notices and declarations so served have to be sent to the Board of Agriculture, copies also being kept at my office.

The new Swine Fever order which came into force on the 1st day of November last, requires that in addition to the before-mentioned notices being served copies thereof, must also be sent to the Superintendent of the Police.

Under the old order your Committee were required to prescribe the area of all infected places, and you were also empowered to declare the said places free 28 days after the disease ceased to exist. The new order requires that I shall prescribe the area of the infected place, if it appears to me that the disease exists, and a declaration so made cannot be revoked except by order of an inspector of the Board of Agriculture, acting under special instructions from the said Board. In all future outbreaks of Swine Fever, notice must be sent by telegram to the Board of Agriculture, who will then instruct one of their travelling inspectors to visit the infected place, and he has power to order the Swine to be slaughtered, and to compensate the owners. With the said Inspector also now appears to rest the responsibility of seeing that the infected premises are properly cleansed and disinfected.

ANTHRAX.

During the year one cow died of Anthrax, and the provisions and requirements of the Anthrax Order of 1892 were strictly observed.

DAIRIES, COWSHEDS, AND MILKSHOPS ORDER.

I have no breach of the above Order, or the Regulations made thereunder, to report. We have now on the Register 26 Cowkeepers, and 51 Purveyors of Milk.

PETROLEUM ACT.

Under the above Act 13 firms were licensed to store Petroleum in quantities varying from 3 to 250 gallons.

COMMON LODGING HOUSES.

We have 12 Registered Common Lodging-Houses in the Borough, with a total accommodation for 576 persons. They are all kept under observation, and the Bye-Laws with respect to whitewashing and cleansing of bedding and floors, &c., are strictly enforced.

Legal proceedings were taken under the Keighley Corporation Act, 1891, against the keeper of an unregistered Common Lodging-House in Leeds Street. The premises were in a very dirty state; there was no separation of the sexes, and the keeper thereof was not a fit and proper person to be registered. The Magistrates imposed a fine of £1 and costs, which the defendant did not pay, nor yet did he discontinue taking in Lodgers. A commitment order was therefore applied for and obtained against the defendant, who was at the time being accommodated with free board and lodgings at Wakefield on another charge, and our order had the double effect of closing his premises and extending his holiday another fourteen days. I had reasons to suspect the existence of one or two other similar establishments in the town, upon which the before-mentioned proceedings appear to have had a beneficial effect. The keeper of one of these places has complied with our Regulations, and has accordingly been registered, and another one has vacated his premises. I believe there are still one or two somewhat similar places that might be brought under the operation of your "Regulations with respect to houses and parts of houses which are let in Lodgings, or occupied by more than one family."

With your permission I would recommend :—

- 1st.—That you consider the advisability of erecting a Destructor, as our tip on Mr. Bailey's land will be about filled up this Spring, and we shall have to commence tipping on the old site beyond the Gas Works. We have there probably still tip accommodation for 3 or 4 years, but we must not lose sight of the fact that we shall always require a tip.
- 2nd.—That you consider the question of the disposal of pail contents, and that if we are to continue our present mode of disposal, more suitable tanks be provided.
- 3rd.—That you increase your next year's estimate sufficient to allow us to cause all privy pails and dry ash tubs to be emptied once per week. In past years a considerable number of these tubs have only been emptied every 14 days, and although our present year's estimate allows a great deal better attention to be given to these matters, it is still insufficient for a systematic weekly collection. An increase of £200 in your estimate would enable us

to pay proper attention to these matters, and also allow of better attention being paid to the cleansing of streets and gullies. Our present estimate for nuisance removal and street scavenging, &c., combined, is £2,500.

In conclusion, I would take this opportunity to acknowledge my appreciation of the never failing energy and zeal displayed at all times by Mr. Wm. Mitchell, more especially during the small-pox epidemic. Without his ever willing assistance it would have been impossible to get through the amount of work that has been accomplished.

I am, Mr. Chairman and Gentlemen,

Your obedient Servant,

WILLIAM C. HALLER,

Boro' Sanitary Inspector.

Municipal Buildings,

Keighley,

March, 1894.



LIST OF STREETS CLEANSED.

High Street - -)		Milton Street - -)	
Low Street - -)	Cleansed seven days per week	Mill Street - -)	Cleansed once per week
East Parade - -)		Oakworth Road - -)	
Railway Bridge - -)		Parker Street - -)	
North Street (Part) - -)		Parkwood Street - -)	
Church Street - -)		Park Lane - -)	
Cavendish Street - -)	Pitt Street - -)	Cleansed when necessary	
Coney Lane - -)	Queen Street - -)		
Market Street - -)	Scott Street - -)		
South Street - -)	Sloe Street - -)		
Corn Mill Bridge - -)	Spring Street - -)		
Ingrow Lane - -)	Sun Street - -)		
Low Bridge - -)	Thwaites Lane - -)		
Aireworth Street - -)	Turkey Street - -)		
Albert Street - -)	West Lane - -)		
Bradford Road - -)	Westgate - -)		
Bradford Street - -)	Arctic Street - -)		Cleansed once per week
Beck Street - -)	Belgrave Road - -)		
Belgrave Road - -)	Beecher Street - -)		
Brewery Street - -)	Campbell Street - -)		
Bow Street - -)	Catherine Street - -)		
Broom Street - -)	Eagle Street - -)		
Cook Lane - -)	Earl Street - -)		
Chapel Lane (Part) - -)	Highfield Lane (Part) - -)		
Dalton Lane (Part) - -)	Ingrow Lane - -)		
Devonshire Street - -)	Ivy Street - -)		
Hanover Street - -)	Mornington Street - -)	Cleansed once per week	
King Street - -)	Marlborough Street - -)		
Lawholme Lane - -)	Pattie Street - -)		
Long Croft - -)	Samuel Street - -)		
Lorne Street - -)	Spencer Street (Part) - -)		
Low Mill Lane - -)	Starkie Street - -)		
Marley Street - -)	Stanley Street - -)		
	Victoria Road - -)		

APPENDIX.

Bye-Laws with respect to Nuisances

Interpretation of Terms.

1. Throughout these Bye-laws the expression "the Sanitary Authority" means the Mayor, Aldermen, and Burgesses of the Borough of Keighley, acting by the Council as the Urban Sanitary Authority; and the expression "the District" means the Borough of Keighley.

For the prevention of Nuisances arising from snow, filth, dust, ashes, and rubbish, and for the prevention of the keeping of animals on any premises so as to be injurious to health.

1. Every person who, for the purpose of facilitating the removal of any snow from any footway or pavement, shall throw salt upon such snow, shall forthwith effectually remove from such footway or pavement the whole of the deposit resulting from the mixture of the salt with the snow.

2. The occupier of any premises who shall remove or cause to be removed any filth, dust, ashes, or rubbish produced upon his premises shall not, in the process of removal, deposit such filth, dust, ashes, or rubbish, or cause or allow such filth, dust, ashes, or rubbish to be deposited upon any footway, pavement, or carriageway.

For the purpose of such removal, he shall in every case use or cause to be used a suitable vessel or receptacle, cart, or carriage properly constructed and furnished with a sufficient covering so as to prevent the escape of the contents thereof.

If in the process of such removal any person shall slop or spill or cause or allow to fall upon any footway, pavement, or carriageway any such filth, dust, ashes, or rubbish he shall forthwith remove such filth, dust, ashes, or rubbish from the place whereon the same may have been slopped or spilled or may have fallen, and shall immediately thereafter thoroughly sweep or otherwise thoroughly cleanse such place.

3. Every person who, for the purpose of depositing any filth, dust, ashes, or rubbish upon any lands or premises, or for the purpose of depositing any dust, ashes, or rubbish in any receptacle provided by the Sanitary Authority for the temporary deposit and collection of dust, ashes, and rubbish, shall remove such filth, dust, ashes, or rubbish from any premises, or from any cart, carriage, or other means of conveyance across or along any footway, pavement, or carriageway, shall use a suitable vessel or receptacle properly constructed and furnished with a sufficient covering so as to prevent the escape of the contents thereof; and shall adopt such other precautions as may be necessary to prevent any such filth, dust, ashes, or rubbish from being slopped or spilled, or from falling in the process of removal upon such footway, pavement, or carriageway.

If in the process of such removal, any such filth, dust, ashes, or rubbish be slopped or spilled or fall upon such footway, pavement, or carriageway, he shall forthwith remove such filth, dust, ashes, or rubbish from the place whereon the same may have been slopped or spilled or may have fallen, and shall immediately thereafter thoroughly sweep or otherwise thoroughly cleanse such place.

4. Every person who shall convey any filth, dust, ashes, or rubbish through or along any street shall use a cart, carriage, or other means of conveyance properly constructed and furnished with a sufficient covering so as to prevent the escape of the contents thereof.

If in the process of such conveyance any such filth, dust, ashes, or rubbish be slopped or spilled, or fall upon any carriageway or elsewhere in such street, he shall forthwith remove such filth, dust, ashes, or rubbish from the place whereon the same may have been slopped or spilled or may have fallen, and shall immediately thereafter thoroughly sweep or otherwise thoroughly cleanse such place.

5. The owner or consignee of any cargo, load, or collection of filth which may have been conveyed, by water or by land, to any place within the district to await removal from such place by such owner or consignee, and may have been deposited to await such removal upon any premises whereon such filth may lawfully be deposited, but in such a situation and in such a manner that such filth may be exposed without adequate means of preventing the emission of stench therefrom at a distance of not more than 100 yards from any street or from any building or premises used wholly or partly for human habitation, or as a school, or as a place of public worship, or public resort, or public assembly, or from any building or premises in or on which any person may be employed in any manufacture, trade, or business, shall not, without reasonable excuse, cause or suffer such filth to remain after the deposit and before the removal thereof for a longer period than 24 hours.

6. Every person who may have undertaken to deliver to the owner or consignee thereof any cargo, load, or collection of filth which may have been conveyed, by water or by land, to any place within the district for the purpose of being delivered by such person to such owner or consignee, and may have been deposited to await such delivery upon any premises whereon such filth may lawfully be deposited, but in such a situation and in such a manner that such filth may be exposed without adequate means of preventing the emission of stench therefrom at a distance of not more than 100 yards from any street or from any building or premises used wholly or partly for human habitation, or as a school, or as a place of public worship, or of public resort or public assembly, or from any building or premises in or on which any person may be employed in any manufacture, trade or business, shall not, without reasonable excuse, cause or suffer such filth to remain after the deposit and before the removal thereof for a period of more than 24 hours.

7. Every person who, for any purpose of agriculture, or for any other purposes, shall deposit or cause to be deposited upon any lands or premises within the distance of 100 yards from any street, or from any building or premises used, wholly or partly, for human habitation, or as a school, or as a place of public worship, or of public resort or public assembly, or from any building or premises in or on which any person may be employed in any manufacture, trade or business, any filth which may have been removed from any cesspool, or any filth which may have been removed from any privy, or from any receptacle used in connection with any privy, and which may not have been effectually deodorized, shall, with all reasonable dispatch, cause such filth to be ploughed or dug into the ground or to be covered with a sufficient layer of earth, ashes, or other suitable substance, or shall adopt such other precautions as may be reasonably necessary to prevent the emission of noxious or offensive effluvia from such filth.

8. The occupier of any premises shall not keep any swine or deposit any swine's dung within the distance of 60 feet from any dwelling-house, or in such a situation or in such a manner as to pollute any water supplied for use or used or likely to be used by man for drinking or domestic purposes or for manufacturing drinks for the use of man, or any water used or likely to be used in any dairy.

9. The occupier of any premises shall not keep any cattle or deposit the dung of any cattle in such a situation or in such a manner as to pollute any water supplied for use, or used, or likely to be used by man for drinking or domestic purposes, or for manufacturing drinks for the use of man, or any water used or likely to be used in any dairy.

10. Every occupier of a building or premises wherein or whereon any horse or other beast of draught or burden or any cattle or swine may be kept, shall provide, in connection with such building or premises, a suitable receptacle for dung, manure, soil, filth, or other offensive or noxious matter which may, from time to time, be produced in the keeping of any such animal in such building or upon such premises

He shall cause such receptacle to be constructed so that the bottom or floor thereof shall not in any case be lower than the surface of the ground adjoining such receptacle.

He shall also cause such receptacle to be constructed in such a manner and of such materials and to be maintained at all times in such a condition as to prevent any escape of the contents thereof, or any soakage therefrom into the ground or into the wall of any building.

He shall cause such receptacle to be furnished with a suitable cover, and, when not required to be open, to be kept properly covered.

He shall likewise provide in connection with such building or premises a sufficient drain constructed in such a manner and of such materials, and maintained at all times in such a condition as effectually to convey all urine or liquid filth or refuse therefrom into a sewer, cesspool, or other proper receptacle.

He shall, once at least in *every week*, remove or cause to be removed from the receptacle provided in accordance with the requirements of this Bye-law all dung, manure, soil, filth, or other offensive or noxious matter produced in or upon such building or premises and deposited in such receptacle.

11. Every person who shall offend against any of the foregoing Bye-laws shall be liable for every such offence to a penalty of £5, and in the case of a continuing offence to a further penalty of 40s. for each day after written notice of the offence from the Sanitary authority :

Provided nevertheless, that the justices or court before whom any complaint may be made or any proceedings may be taken in respect of any such offence may, if they think fit, adjudge the payment as a penalty of any sum less than the full amount of the penalty imposed by this Bye-law.

Repeal of Bye-laws.

From and after the date of the confirmation of these Bye-laws, the Bye-laws made by the Keighley Local Board of Health on the 17th May, 1870, and confirmed on the 2nd August following by one of Her Majesty's Principal Secretaries of State, relating to Street Cleansing and Cattle Yards shall be repealed.



SHEM PAGET,
MAYOR.

The Common Seal of the Mayor, Alderman and Burgesses of the Borough of Keighley was affixed by order of the Council of the said Borough at a meeting of such Council held on the 28th day of November, 1893, in the presence of

WILLIAM CLOUGH,
ALDERMAN.

ROBERT HOLMES,
ALDERMAN.

GEORGE BURR,
TOWN CLERK.

Allowed by the Local Government Board this _____ day

of _____ 189



PRESIDENT.

SECRETARY.

