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ON THE

# SANITARY CONDITION

OF

# PUDSEY

DURING THE YEAR 1893.

BY

### W. L. HUNTER,

B.A., M.D., Dub. D.P.H. Camb.

MEDICAL OFFICER OF HEALTH.

PUDSEY :

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# URBAN SANITARY AUTHORITY.

#### ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH.

MR. CHAIRMAN AND GENTLEMEN,

I herewith beg to present my Report on the Health of the District during the year 1893.

Pudsey was made a Local Board District in 1872.

It then comprised an area of 2546 acres and the population was 13,077.

Part of the Urban Sanitary District of Pudsey was amalgamated with that of Bradford in 1881,

leaving the present area 2409 acres.

Rateable value for Poor Rate purposes £43,563.

Rateable value for General District purposes £37,800.

Topography.—The district is roughly pear-shaped, the stem end being West and the broad end East. It is bounded on the North by the Local Board Districts of Calverley and Farsley and the County Borough of Leeds; on the East by Leeds; on the South by Leeds and the Local Board District of Tong; on the West by the County Borough of Bradford.

The houses are arranged in irregular, straggling streets, and there are large open, unbuilt on spaces between the streets. The highest point is 625 feet above the sea level, and the centre of the district is about 600 feet above. From this the ground slopes away in every direction to about 225 feet.

Pudsey Beck flows from North to South across the small end of the district, then flows East, bounding the main part of the South side, and North again, bounding part of the West side. Farsley Beck runs for a short distance on the North side,

These streams and their tributaries are polluted by coal mines, iron works, woollen mills, tan-yards, and other processes of manufacture, as well as by private houses. In fact, they act as main open sewers. They finally end in the River Aire.

The subsoil consists of clay, clayey loam, and shale.

Table Showing Population, Density, etc., 1801 to 1881 (2546 Acres).

Dates.	Inhabited Houses.	Uninhabited . Houses,	Males.	Females,	Total Population.	Average No. in each Inhabited House.	Average Density
1801	850	44	2182	2240	4422	5.2	1.7
1811	986	23	2406	2291	4697	4.7	1.8
1821	1219	78	3107	3122	6229	5.1	2.4
1831	1504	41	3744	3716	7460	4.9	2.9
1841	2011	102	5013	4989	10002	4.9	3.9
1851	2429	178	5770	5833	11603	4-7	4.5
1861	2859	277	6325	6587	12912	4.5	5.0
1871	3156	218	6779	7197	13976	4.4	5.4
1881	3458	519	7353	8103	15456	4.4	6.07

Table Showing Population, Density, etc., of Present Area (2409 Acres).

1871					12173		5.05
1881	2769	403	5587	6427	12314	4.4	5.1
1891	3095	314	6522	6922	13444	4-3	5.5

Vital Statistics.—(Calculated on the estimated Population for 1893—13740.)

The Births registered during the year numbered 356 (males 187, females 169), giving a Birth-rate of 25.9 per 1000.

The Deaths for the year numbered 254 (males 146, females 108), giving a Death-rate of 18.41 per 1000.

The Deaths from the 7 principal Zymotic Diseases, namely, small-pox, measles, scarlet fever, diphtheria, whooping cough, "fever" (typhus, simple, continued and enteric) and diarrhæa, numbered 39, giving a Zymotic Death-rate of 2.8 per 1000.

The Deaths of Infants under one year of age numbered 60, and, calculated on the number of children whose births were registered during the year give an Infantile Death-rate of 168.

There were 44 deaths from bronchitis, pneumonia, and pleurisy, giving a Respiratory Death-rate of 3.2 per 1000.

There were 23 deaths from Phthisis, giving a Phthisis Death-rate of 1.6 per 1000.

Deaths registered as due to old age—13.

Deaths above 80 years of age—11 (the oldest being 90. Deaths from injury—9.

Suicides-2.

Inquests held—24.

Uncertified deaths registered—o.

Illegitimate Births registered 4.

Still-born children buried in the Cemetery-15.

The Death and Birth Returns are obtained from the Registrar every week with unfailing regularly.

The following Table shows the Births; Total Deaths; Deaths from Zymotic and other classes of tc., for the last twelve years. (Some of the spaces are blank for want of information.)

	12	00	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	Cancer
9	6	II	00	10	ပ	6	7	4	7	:	O1	:	:	:	:	:	:	Injuries
	0	I	c)	4	4	I	ပ	I	O1	3	I	:	:	:	:	:	:	Croup
	13	19	19	21	13	18	18	13	OI	:	17	:	:	:	:	:	Disease	Heart
												:	:	У )	Pleurisy	~		
44	51	89	93	72	86	66	56	51	56	63	46	:	:	onia >	Pneumonia	ints <	Complaints	Chest
												:	:	itis )	Bronchitis			
																nued)	(Continued	
cr	6	دي	12	6	2	4	دى	Si	دی	Or	12	:	:	:	:	ic	Enteric	Fever
																us )	(Typhus	
2	12	دى	4	12	1	U	12	Si	18	31	7	:	:	:	:	:	ra	Diarrhœa
	0	14	4	0	15	0	I	00	0	S	6	:	:	:	:	Cough		Whooping
		I	0	0	0	0	12	0	I	I	S		:	:	:	:		Diphtheria
	I	4	0	I	I	OI	II	3	U	6	4	:	:	:	:	:	Fever	Scarlet Fever
	4	I	0	34	လ	3	00	0	00	4	9	:	:	:	:	:	:	Measles
	0	0	0	0	0	0	0	0	0	I	0	:	:	:	:	:	Pox	Small
	14	26	20	53	22	22	37	21	35	51	41	:	:	: .	ases	c Diseases	Zymotic	
70.5	17	13	21	25	32	22	27	24	22	20	23	:	:	:	:	:	S	Phthisis
	54	51	59	74	71	:	:			::	:	:	:	:	Year	One	under	Infants
2	N	9	9	-	9	25 I	259	-	259	235	259	:	:	:	:	:	:	Deaths
356	352	326	347	311	323	332	351	374	343	390	477	:	:	:	:	:	:	Births
1093	1892	1991	1890	1889	8881	1887	1880	1885	1884	1882 1883 188	1882			7.4				
	0	0	0	00	0	000	000	00	00	00	00							

#### Zymotic Diseases-1893.

	-			
Disease.	Number of cases.	Number of deaths	Number sent to Hospital	Remarks.
Small-Pox	17	I	17	
Scarlet Fever	14	I	6	January (1 case)—February (3)— March (5)—April (1)—May (1)— September (1)—November (2).
Enteric Fever	19	5	• 1	February (1 case)—July (5)—August (6)—September (6)—October (1).
Diphtheria	0			
Whooping Cough	Many	0		
Measles	Many	8		January (50 cases)—February (30) —March (20)—April (2)—September (2)—October (20).
Diarrhœa	Hundreds	25		Epidemic in August.
Influenza	Hundreds	2		Cases all through the year— Epidemic in November.

#### Deaths at certain age periods.

Year,	Under 1	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 60 years.	Over 60 years.	Total.
1888	71	35	11	17	59	98	291
1889	74	57	9	14	64	95	313
1890	59	36	16	21	62	100	294
1891	51	37	15	21	83	87	294
1892	54	20	13	11	54	74	226
1893	60	33	10	13	55	83	254

The Birth-rate for the year is almost the same as last year.

The Death-rate although higher than last year is favourable as compared with former years.

The Respiratory Death-rate is the lowest for more than 12 years past. This is probably due to the fine weather that prevailed during the year.

The Zymotic Death-rate is high from the prevalence of Diarrhea in August.

Small-Pox.—As this complaint was prevalent all through the year in the adjacent towns, it was only to be expected that it would spread to your district. Seventeen cases have come under my notice during the year. These occurred in 15 houses.

Table on page 9 gives detailed information of the cases. As far as we could ascertain each case was a fresh and independent importation from the surrounding districts, and the disease in no case spread beyond the house where it first broke out, and in only two instances were there two cases in one house. In the first the two cases began on the same day; and in the other the second case began nine days after the first case was notified and removed to the hospital. It would not be reasonable to regard this satisfactory issue as a matter of mere good luck, but rather as a proof that the steps taken to prevent the spread of the disease were efficient and therefore successful. This result also goes far to prove that the maintenance of an isolation hospital is not altogether a superfluous expense, especially if we compare the cost of dealing with these cases with the very much greater expenditure which would be incurred if the disease had been allowed to spread from so many centres of infection.

As some people are sceptical as to the necessity for the precautions adopted, I venture to briefly describe the steps taken alike in every case. On receiving notice of the case the house was visited as soon as possible by the Sanitary Inspector and myself. Inquiries were made and particulars registered as to the probable source of infection. The names and addresses were also taken of each person in the house at the time and of any visitor since the case began. If the visitors were from another district, the fact that they had been in a small-pox infected house was notified at once to the Sanitary Authority of that district. Everyone in the

List of Small-pox cases heard of during 1893.

it,	д. 11	11				11	10	65	00	6	S	w			9	9	
Approximate Cost of Treatment, Disinfection, Quarantine, &c.	··; 00	00	01	81	18	10	61	1	ıs	0	1	1	9	9	ы	6	6
Appros of Th Disi Quara	71	17	6	w	10	11	00	13	11	00	91	91	9	7	9	80	6
Result.	Recovered	Recovered	Recovered	Recovered	Died	Recovered	Recovered	Recovered	Recovered	Recovered	Recovered	Recovered	Recovered	Recovered	Recovered	Recovered	Recovered
Type of Disease.	Discrete	Confluent	Confluent	Semi-Confluent	Confluent	Discrete	Discrete	Confluent	Confluent	Discrete	Discrete	Semi-Confluent	Discrete	Discrete	Discrete	Discrete	Discrete
Number and Character of Marks.	3—faint Re-vaccinated (1 mark) 27 years ago	2—	2—good	Not Vaccinated	Not Vaccinated	2—good	3—good	Not Vaccinated	Not Vaccinated	3—	2—	1—faint	4—good	1—faint	I—faint	2—faint	3—good
Days in Hospital.	0	18	69	92	52	31	24	54	54	29	37	43	25	37	27	51	41
Removed to Hospital.	Feb. 24	Apl. 5	., 12	., 29	., 29	,, 30	May 14	., 14	,, 26	Sept. 1	Oct. 16	,, 19	Nov. 7	01 ''	,, 20	,, 26	Dec. 6
Rash.	Feb. 21	Apl.	Apl. 12	Apl. 28	Apl. 28	Apl. 29	Мау 11	May 12	May 25	Aug. 28	Oct. 5	Oct. 15		Nov. 8	Nov. 20	Nov. 25	Dec. 5
Age Sex. (years)	04	36	50	1.5	14	25	21	28	6	24	28	40	29	35	36	28	23
Sex.	M	M	M	M	F	Į.	M	M	M	(II	Ŧ	Ţ	(II	Ĺ	M	[I	M
No.	-	61	3	4	· vo	9	7	00	6	10	11	12	13	14	15	91	17

house was re-vaccinated, and as many of the visitors as we could persuade to be done. The latter were also kept under observation at their houses for over fourteen days, and their clothes at once disinfected where we thought it necessary. The sick person was promptly removed to the Hospital, kept there until free from infection, and the people in the house were also taken to the Hospital to be disinfected, and on their return allowed to go to work without further quarantine. Every article, such as bedding, clothing, etc., likely to be infected, was also taken there and passed through the steam disinfecting oven, or, in some cases, at once burnt. The house and the remaining articles were fumigated with sulphurous acid, and afterwards the rooms were stripped of their paper, and the walls disinfected with lime wash and carbolic acid, the floors and woodwork were scrubbed with soap and carbolic acid. In a few cases, owing to the pressure of work, and want of space at the Hospital, after the removal of the patient, the inmates were allowed to remain at home for a day or two, and, being strictly confined to the house, had to be provided with food and other necessaries.

From the Table on page 9 it will be seen that the total cost of the 17 cases was about £177 15s. od.; giving an average cost of £10 15s. od. For comparisons I copy a paragraph from British Medical Journal, May 23, 1893, which gives some particulars of the cost of small-pox in various districts during 1892.

Total Cost of Epidemics.—We learn the total expenditure incurred by reason of small-pox in 17 districts, which had among them 1,165 cases. The sums amount to £9,962, averaging £8 11s. per case. We set the figures out in columnar fashion, so as

better to compare facts stated in the preceding table :

Districts.			Total Expenditure.	Total Cases.	Cost per Case
O Watalata			£ 9,962	1.160	£ s. d.
Seventeen districts	***	***		1,165	
Lancashire ,, (5)		***	4,455	652	6 16 8
Yorkshire ,, (10)			5,223	438	12 0 0
Wakefield Rural			1,500	82	18 0 0
Hipperholme	***	***	1,000	53	19 0 0
Salford			127	6	21 3 4
St. Helens, Lancs			297	22	23 10 0
Sowerby Bridge			444	28	24 10 0
Doncaster Rural			813	26	31 0 0

It will be seen from the above how vastly different has been the cost per case in one and another district. We do not hesitate to say that in general the state of a district to isolate initial cases of infectious sickness will determine in large degree the cost-liness of outbreaks per patient. Warrington, with its 494 cases and under £7 per case, is in striking contrast, for example, with Doncaster Rural District.

This shows that £10 15s. od. per case is reasonable. In considering the cost of dealing with small-pox cases it is well to bear in mind that the greater the number of cases the greater the total cost, and we may safely assume that if the 17 cases referred to spread to 17 more the total cost would have been doubled, and so on in proportion. The true economy is to make every effort to prevent every freshly imported case from spreading.

The small-pox figures given above are too small to draw trustworthy conclusions from, but I may point out that there was only one child attacked, and that one unvaccinated.—I believe it may safely be accepted that children escape the disease because of the protection afforded them by vaccination. The protective effect of vaccination wears out later in life, but can be renewed by re-vaccination. I am firmly convinced myself that vaccination, followed, when the time comes, by re-vaccination, is the easiest, most thorough, and much the most economical way to stamp out small-pox.—I cannot understand why all people who fear small-pox do not get vaccinated; the operation, especially when done with calf-lymph, if only regarded in the light of a speculation is one that there is everything to gain and nothing to lose by.

Pudsey Vaccination Returns for the Years 1882-1892.

Year	Number of Births gistered from Jan. 1st to Dec. 31st.	Successfully Vaccinated.	Insusceptible	Dead	Postponed by Medical Certificate.		noved to aces.	Not finally accounted for.	Percentage of Unvaccinated children includ- ing columns A. B. C. D.
	Number Births registered Jan. 1st Dec. 31s	Suc	Insu	Unv	Post	Known.	Unknown.	No	Univ Childr ing
1882	362	320	0	33	1	4	4	0	2.4
1883	395	346	0	40	1	3	4	1	2,2
1884	342	300	0	34	1	2	5	0	2.3
1885	379	338	I	31	2	2	3	2	2.3
1886	365	323	0	36	0	0	6	0	1.6
1887	324	281	I	36	1	3	2	0	1.8
1888	328	265	0	45	3	2	9	4	5-4
1889	313	251	I	48	1	6	4	2	4.1
1890	353	273	0	39	2	6	10	23	11.6
1891	310	223	3	34	3	7	23	7	12-7
1892	345	265	1	43	2	10	12	12	10.4

The above vaccination return has been kindly furnished by Mr. Newell, Vaccination Officer.

Influenza.—This disease was present in the district all through the year. The number of cases each month decreased from January to October. In the second and third weeks of November the complaint became epidemic and amounted to several hundred cases. The number of cases rapidly lessened during the end of November.

The type of the disease was mild, and to a great extent uncomplicated. The freedom from the latter may be accounted for by the exceptionally fine weather during the month. The after effects that in former epidemics followed, e.g., weakness, nervous prostration, neuralgia, &c., were not nearly so severe. The majority of the cases that came under my own observation had had the complaint before; in many cases more than once.

Although many children did not seem to be affected by it, as indicated by the number who came under medical treatment, it is rather significant that during November the absentees from the Board Schools were so numerous as to interfere with the working of the classes. The fever attending the complaints in children were in many cases distinctly intermittent going from 104° or 105° to 98° in one day, then rising and falling again in the same way for two or three successive days.

The disease, as far as I could ascertain, did not attack the lower animals.

Hospital for Infectious Diseases.—The Calverley Joint Hospital, opened November, 1891, with 18 beds. An additional wooden building, for 6 beds opened in February, 1893. Another Iron addition for 10 Small-pox beds, opened in May, 1893. This hospital was built and is maintained by Pudsey, Idle, Eccleshill, Farsley and Calverley, having a total population (Census 1891) of 36,343, and an area of 7,236 acres.

The following summary for the year is supplied by Mr. Wilson, curator.

#### Calverley Joint Hospital-1893.

	FROM THE FIV	E DISTRICTS.	From Pt	JDSEY.
Patients.	Admitted.	DIED.	Admitted.	DIED.
Small Pox	54	3	17	I
Scarlet Fever	68		6	
Enteric Fever	24	3	1	
Total	146	6	25	I

The disinfecting of the infected houses, clothes, etc., for the five districts is done by the hospital staff under the Curator, and the system on the whole works well.

In consequence of the spread of small-pox to some of the other patients in the hospital, the small-pox building was separated from the other blocks by a boarding 8 feet high, and a separate ambulance provided to be used for small-pox cases only. The following regulations were also drawn up, and it was considered safe to re-open the hospital for all classes of infectious cases on 1st November.

#### Calverley Infectious Diseases Hospital

REGULATIONS FOR PREVENTING THE SPREAD OF SMALL-POX INFECTION.

- 1.- The doors of the enclosure containing the buildings used for Small-pox cases shall be kept locked, the keys shall be kept by the Curator or Matron only, and the doors shall be opened only in their presence.
- Communication between the Small-pox wards and the administrative block shall be by telephone only.
- 3.—A separate vehicle shall be used for the removal of Small-pox cases and infected articles, as clothing, bedding, etc., having been in contact with such patients.
- 4.—The Curator and his assistant shall use special clothing, and such clothing, as well as the vehicles, beds, blankets, wrapping, or other articles used, shall be thoroughly disinfected after each removal of Small-pox patients, or other work bringing them into contact with such patients.
- 5.—All food for the Small-pox wards must be placed immediately inside the enclosure in the presence of the Curator or Matron, and no utensil may be removed from the Small-pox wards unless it has been kept for twenty minutes in boiling water, and such process of disinfection must be repeated when the untensils reach the administrative block.
  - 6.—All waste produced in the Small-pox wards must be burnt there.
- 7.—All foul linen or other similar articles requiring removal to the laundry must be immersed in the carbolic tank within the enclosure, remain there for at least twelve hours, and be removed only under the supervision of the Curator or Matron to the tank attached to the laundry.

- 8.—The medical attendants shall arrange to visit the Small-pox wards after having seen the other patients, if any.
- 9.—None of the persons employed in the Small-pox wards may leave the enclosure unless they have undergone efficient disinfection; and convalescent patients must be similarly treated before being discharged.
- 10.—In case of death in the Small-pox wards the body shall be immediately wrapped in two sheets soaked with 1 in 20 carbolic solution, and taken to the Mortuary. Interment to follow as soon as possible, direct from the Mortuary. The Mortuary to be disinfected after being used.

#### Regulations as to Visitors.

- 1.—No visitor to be admitted to the Small-pox wards without a pass signed by the Medical Attendant in charge, and no such pass shall be issued except in cases where a fatal issue is expected.
- 2.—No pass shall be granted to any person not recently vaccinated, or who, in the opinion of the Medical Attendant in charge, is insusceptible to the disease.
- 3.—Each visitor must put on a wrapper provided for the purpose, and before leaving the premises must wash the hands and face, and use whatever disinfection is required by the Medical Officer.

1st November, 1893.

Milk Supplies.—There are 71 dairies and cowsheds, with about 300 cows.

Regulations under the Dairies, Cowsheds and Milkshops Order, 1885, adopted by the Local Board, November 14th, 1892. Came into force, January 1st, 1893.

For the inspection of Cattle in Dairies.

For prescribing and regulating the lighting, ventilation, cleansing, drainage, and water supply of Dairies and Cowsheds, in the occupation of persons following the trade of Cowkeepers or Dairymen.

For securing the cleanliness of Milk-stores, Milk-shops, and of Milk-vessels used for containing milk for sale by such persons.

For prescribing precautions to be taken by purveyors of milk and persons selling milk by retail against infection or contamination.

As serious epidemics of disease are frequently caused by infected milk it is most desirable in the interest of the public health that cowkeepers should observe the above Regulations. In my report for 1892 I put before you in some detail the result of an inspection of the Cowsheds and Milkshops in the town. The following table is a summary of the inspection, and it shows at a glance how far removed a large percentage of the Cowsheds were from the ideal prescribed by the Order of 1885. The chief requirements under the Order are the reasonable ones of food, drainage, light, ventilation, breathing space, cleanliness and safe water supply.

#### Table showing Sanitary conditions of the Cowsheds in 1892.

	rainin	-		ghtin			ntilat		*Cubic				Supply	
Good	Bad	None	Good	Bad	None	Good	Bad	None	Over 800 ft.	Under 800	Pipe	Pump	Shallow well	Rain or None
4	55	12	39	14	8	24	27	20	28	43	25	23	17	6

(\*800 cubic feet is the minimum allowed by the Regulations adopted.)

The following is a list of the number in which sanitary improvements have been carried out during the past year.

	 12
	 19
	 3
	 8
}	 9
	 I
	 37

Water Supply.—The Local Board in 1892 bought the plant of the Calverley District Water Company; and now buy water direct from the Bradford Corporation.

The moorland water supplied is soft, and organically pure, but often unsightly, probably from the presence of peat. The supply to some districts of the town has not been at all regular during the year, and I have heard numerous complaints. The supply should be made constant to every house in the place, as, apart from the inconvenience, there are dangers to health connected with an intermittent supply.

The water in its pure state acts strongly on lead, and to remedy this evil, which resulted in a large number of cases of Lead Poisoning, the Bradford Corporation in the middle of 1892 began mixing 3 grains of chalk with each gallon of water. The result has been most successful, as Lead Poisoning has nearly disappeared from the district. I have estimated the amount of lead in the water from four districts of the town every day, and the comparative results for 1892 and 1893, (from a lead pipe 180 feet long), are shown on

page 17. In the case of short pipes the quantity of lead is now reduced to a trace, or none, and people who a year or two ago very properly feared to drink the pipe water may feel reassured that they may now do so with safety.

Refuse Disposal and Scavenging.—The Local Board undertook the Scavenging of the District in 1884.

Attention and the proper scavenging of their district is one of the most important duties of a Sanitary Authority, and is considered by the highest authorities on Sanitary matters to have an important effect on the health of the community.

I reported last year an improvement in the scavenging of the district, and there has been a further improvement during 1893. The privies and ashpits are now cleaned out 12 times a year, instead of 8 times, and those belonging to factories and schools every fortnight; in the case of the schools the emptying is now ordered to be done on Saturday, when the school has a holiday.

The Board in 1893 appointed a man to clean out all the gullies of the house drains. This work, which was more or less of an experimental nature, I consider to be a salutary measure and I trust the Board will continue it. The man was appointed for two months, and during that time he twice completed the round of the town, so that it may be taken that all the private house gullies in the town can be cleaned in a The man found that a large proportion of the gullies were dirty, and choked; in fact they were little cesspools dangerous to health. He also found out that a number of the housholders had no idea that the gullies needed cleaning or any kind of attention. From this point of view the work has a considerable educational value. A large number of the gullies were found to be far too large, and the workmanship used in the fixing of them often defective, so that it is nearly impossible to keep them clean enough to be safe for health.

In consequence of some complaints I made an inspection of the privy accommodation of the factories in the town. The summary on page 18 gives an idea of the unsatisfactory conditions found to exist. Whenever it is possible trough closets, with automatic flush tanks, should be adopted; the midden system, bad as it is for private houses, is very much worse when applied to factories.

		*/			1
		I	893.		1892.
	Hardness, Degrees.	Alkalinity (parts per million, in term of car- bonate of lime)	Weekly average Grs. Lead per Gallon	Monthly Average. Grs. Lead per Gallon.	Monthly Average. Grs. Lead per Gallon.
January 1st to 7th ,, 8th to 14th ,, 15th to 21st ,, 22nd to 28th ,, 29th to Feb. 4th	3 3 3		.18 .24 .19 .18	.17	} .45
February 5th to 11th ,, 12th to 18th ,, 19th to 25th ,, 26th to Mar. 4th	3 3 3 3		.15 .16 .15	.15	33
March 5th to 11th ,, 12th to 18th ,, 19th to 25th ,, 26th to Apl. 1st	3 3 3 3		.18 .17 .17 .16	.17	.60
April 2nd to 8th ,, 9th to 15th ,, 16th to 22nd ,, 23rd to 20th ,, 30th to May 6th	3 3 3 3 3		.18 .15 .16 .16	) .16	} .5
May 7th to 13th ,, 14th to 20th ,, 21st to 27th ,, 28th to June 3rd	3 3 2 3.5		.16 .09 .11	11.	} .48
June 4th to 10th ,, 11th to 17th ,, 18th to 24th ,, 25th to July 1st	3 3.2 3.5 3		.14 .15 .14 .06	.12	} .65
July 2nd to 8th ,, 9th to 15th ,, 16th to 22nd ,, 23rd to 29th ,, 30th to Aug. 5th	3.2 3 3 3.2 3.2		.13 .14 .14 .09	.11	} .47
August 6th to 12th ,, 13th to 19th ,, 20th to 26th ,, 27th to Sept 2nd	3.5 3.2 3.5 3.5		.12 .14 .10	} .11	} .39
Septem. 3rd to 9th ,, 10th to 16th ,, 17th to 23rd ,, 24th to 30th	3.5 3.5 3.5 3.5	-	.08 .13 .12	11.	.22
October 1st to 7th ,, 8th to 14th ,, 15th to 21th ,, 22nd to 28th ,, 29th to Nov. 4th	3.5 3.5 3.5 3.5 3.5	13.0	.20 .17 .15 .12	} .14	.27
Novem. 5th to 11th ,, 12th to 18th ,, 19th to 25th ,, 26th to Dec. 2nd	3-5 3-5 3-5 3-3	13.9	.15 .09 .10 .06	.10	.24
Decem. 3rd to 9th ,, 10th to 16th ,, 17th to 23rd 24th to 31st	3-5 3-1 2-9 2-9	12.0	.07 .12 .12 .17	,12	.21

#### Factory Privy Accommodation, 1893.

	1	7			
No.		For wh	ich Sex.	Description.	Remarks.
110.		Male	Female.	Description.	
1	1		13	Communicate directly with the rooms that the	
	I		20	operatives work in, and cause an offensive	
	ī		33 20	smell. Discharge into tank which overflows.	
	3	14			
2	2		55 12	Good in construction and condition,	
	1	20		Old, in bad repair, discharges on to land.	
3	2	20	20	No separate accommodation for sexes.	
	I	12		Badly constructed; discharges into tank below ground level.	
4	2		30	Communicate directly with mill, and so	
	I	20	160	ventilate into work rooms; discharge into an	
	6		100	) exceedingly offensive, overflowing tank. ) Old fashioned privy with uncovered midden.	
5	3	30		) Offensive.	
6	2	10	60	Dilapidated old fashioned privy, discharging	New privies have been constructed
-	2	26	46	j into a large tank which overflowed into mill.  Dilapidated; open midden.	been constructed
7	4	-	40	No separate accommodation for sexes.	
8	2		57	Old fashioned privies with open middens.	
	2	27		Privy roofs drain into midden. Very offensive.	
9	2		75	1	Have been
	3		130	Communicate and westilete into week some	disconnected
	1 2		14 52	Communicate and ventilate, into work rooms.  Offensive.	from the mill
	I		36		and otherwise
	2 4	40	60	K	1
	2	20		Offensive; badly constructed.	- Amended.
10	2	30	60	Offensive; no ashpit.	
11	4	30		Water closets; in good order.	
	4		80		
12	3	15	14	Old fashioned privy and open midden.	
13	1	30	30	No separate accommodation for sexes.	
	1	30	30	Communicate and ventilate direct into work-	
	1 2	30	20	Shops; very offensive. Old fashioned offensive privy and midden.	
14	2		30	Good construction and condition.	
	2	10		Companies to suith will	
15	1 2	12		Communicates with mill Good.	
	3		70	,,	
	6	100		**	
16	2	40	20	Bad, discharges on to ground, no midden.	
	4		60	Fairly good, but discharges into an offensive	
	3	50		tank. Bad; offensive; discharges on to ground.	
17	3	12		Fairly good.	
	I I		60	Communicates with mill.	
	I	50	15	;; ;; ;; ;; ;; ;; ;; ;; ;; ;; ;; ;; ;;	
	1		50	., .,	
	I	50 42		Good in structure, and well kept.	
	1		25	11 11 11 11	
- 0	I	12	-	Fairly good.	
18	8 2	40	30	Old type; open midden.	
	100000		0-		

Paving of Private Streets, Passages, etc.—In most matters steady sanitary progress is being made in Pudsey, but I regret that there is one exception to the rule. For two years I have brought the filthy, unhealthy, and unsightly state of the private streets and passages to your notice; and it has also, in consequence of a complaint from some rate-payers, been the subject of a County Council letter to the Board. In wet weather a number of these streets, e. g., Greentop, Occupation Lane, Crawshaw Fields, Varley Street, are deep in mud, and pools of standing water. Without doubt the general health of the town is injuriously affected by this backward state of things and on that account, apart altogether from the æsthetic side of the question, it is the duty of the Board to deal promptly and fully with this source of danger.

Sanitary Lectures.—A course of free lectures was given in Pudsey during February and March by the Medical Officers of Health of the five districts which have combined to maintain the Calverley Joint Hospital. The same lecture was given by each Medical Officer in each of the five districts, so that there were 25 lectures given in all. The subjects were as follows:—

M.O.H., Idle. The Germs we suffer from.

M.O.H., Farsley. The Water we drink.

M.O.H., Eccleshill. The Food we eat.

M.O.H., Calverley. The Air we breathe.

M.O.H. Pudsey. The House we live in.

These lectures were well attended, and on the whole were an encouraging success.

Public Houses Property.—In my report for 1892 I gave a list of the sanitary defects found in 29 of the Public Houses, taken in consecutive order. To complete the list I now add 3 more and I think I can safely say the record is a remarkable one.

30.—The whole of the drainage from w.c., bath, lavatory, house sinks, cellar and wash house, discharges into an open water course close to the premises.—W.C., old type, pan closet. The bath and lavatory waste pipes join into soil pipe. All the sink pipes are connected directly into drains. The drains are laid with an irregular fall, in crooked lines, with open joints, and are choked at several points. The drains open into the cellar at several points, and the up-draught is sufficient to put out a candle.

31.—Kitchen-sink pipe untrapped and connected to the drain. The outside drain is untrapped. The public urinal is an underground receptacle, difficult of access, and undrained.

32.—Kitchen Sink trapped and disconnected. The gully is badly fixed and the sewage percolates through the joints of the pavement at the foundation. Both waste pipes discharge directly into a full pipe which is connected into the drain. Some of the drains are rubble, some pot-pipe. An old rubble drain passes close to the cellar wall, and the gases from it get into the cellar and can be smelt all over the house. There is a defective pipe drain under the cellar floor. The Urinal is not connected to the drain.

Bye Laws.—In 1892 the Local Board determined to adopt the Local Government Board's Model Bye Laws for new buildings. For some reason they have not yet come into force. This is a matter that should be hurried on, as the town, especially now that new buildings are being put up

every day, is suffering from the delay.

It is very important for the proper management of a town that out-of-date bye-laws should be shelved, and replaced by the modern model ones as recommended by the L.G.B., and I strongly advise the Board to take into consideration this matter. I may mention particularly Bye Laws for Common Lodging Houses, Slaughter Houses, Offensive Trades and Nuisances.

Main Sewering.—The Local Board in 1888 had a scheme for the main sewering of the town prepared by Mr. J. H. Rhodes, C.E. This scheme was rejected by the Local Government Board because there was no provision for sewage treatment. In 1893 Mr. Spinks, C.E., revised this scheme and submitted amended plans, which included sewage purification works, to the Local Board. These plans received the sanction of the Local Government Board in November 1893, and permission was given to borrow £36,000. The Local Board in December, 1893, instructed Mr. Cass, the town Surveyor, to prepare contract drawings, together with other documents and data necessary for carrying out the works.

It is almost absurd to point out that the chief object of the main sewering is to collect and carry away the sewage from the private house drains, and that going to the great expense of a main sewer unless the house drains are properly

connected to it is like throwing away money.

#### SUMMARY OF

# SANITARY INSPECTOR'S REPORT FOR 1893.

of Complaints received Full Ashpits during the year Nuisances			29 101
of Houses, Premises, &c., inspected			587
			1077
of Nuisances abated			1022
of Re-inspections, Works in Progress			1775
			242
	ashed		39
			41
Animals removed, being a Nuisance			29
			9
			161
			6
		-	70
ries ( New Provided			114
			26
pits New Provided			55
			7122
			417
			331
			60
			36
		10000	95
		GRANKS TO SERVICE STREET	63
			6
	•••		
Common Lodging-houses		***	74
Mills		***	18
gal proceedings		•••	1
oke Observations		101	16
one observe			
	during the year   Nuisances of Houses, Premises, &c., inspected of Nuisances reported of Nuisances abated of Nuisances abated of Re-inspections, Works in Progress Orders issued for Sanitary Amendments Houses, Premises, &c., Cleansed and Limew Accumulations removed Animals removed, being a Nuisance Yards, Courts, &c., Cleansed	during the year   Nuisances   Nuisance   Nuisanc	during the year   Nuisances

Offensive Trades.—Under the above heading may be included a trade carried on in the town; that is the traffic in human urine and its use for scouring cloth in some of the mills. Most of the public-houses, and a large number of private people, collect urine in tubs, and this is periodically collected in special tank carts, and carried to some of the mills (I understand it is used at four) where its strength is tested by taking the specific gravity or by noting the tarnishing effect it has on a bright silver coin. It is then stored in tanks fitted with pumps, and either by itself, or mixed with pig excrement and blood, used for scouring cloth. The stored urine is known by the trade name of "Old wash," and the regular trade price paid by the mill owners is one penny per bucket of 6 gallons. Four or five bucketsful is considered to be a large amount for a private house to collect in a week. The carts contain about 60 buckets, that is 360 gallons and there is altogether collected about 18 to 20 carts per week. It is more difficult to obtain a quantity in summer, although the quality is better, and when obtained from private houses is considered to be better in quality than that from public houses. The peculiar Sanitary interest in the trade consists in the fact that the collecting tubs are generally close to houses, often leak or overflow, and always stink abominably. In addition to this the carriage, the mills, through the streets, especially in hot summer, is rather a serious nuisance: the carts spreading an effluvium which certainly is exceedingly offensive, and possibly dangerous to health. There is a difference of opinion amongst cloth manufacturers as to the necessity for using this apparently primitive process. Some say that in no other way can the cloth be so effectually scoured; while others say that the work can be done as well by chemicals. If the former view be correct it is a reproach to modern science. Be that as it may, I am of opinion that unoffending people in the streets of the town, who have no interest in the profits of this peculiar business, should be protected from these disgusting stenches, by the Sanitary Authority insisting that the collection and carriage of the urine should be carried on at night.

I cannot help thinking also that the penny or twopence a week gained by the sale of this material is poor compensation for the disagreeable associations connected with its collection and storage in, or close to, private houses. Regular Inspection of District.—In compliance with the P.H.A., 1875, Sect. 92, I have made regular inspections of the district. The following is a summary of some House to House inspections.

Table showing some details of House to House Inspection of 151 Houses.

	01 131	110000	•		
	Trapped and dis	connected	1		54
ins.	,, ,, cor	nected			43
Sink Drains.	Untrapped and o	connected			13
Sink	" " dis	connected	1	٠	9
"	Houses without	sinks			33
e.	Untrapped into	houses			4
inag	,, ,, ou	t-drains			5 I
Dra	Defective .				50
House Drainage.	Fair				25
H	Good				2 I
	Water in cellers		****		ΙI
	Pipe water .				116
oply.	Pump				15
Water Supply.	Shallow well .				8
ater	Rain water				2
M	None		***		10
ts.	Males				170
tion. Adults	Females				212
Population.	Males				57
Popul Children.	Females				61
1-1		Total	population		500

# METEOROLOGY FOR 1893.

Observations taken at 9 a.m. (500 feet above sea-level.)

BAROMETER

THERMOMETER IN SHADE.

Daily Means. Degrees of Humidity. (Saturation = 100)

Dec	Nov30.04	Oct	Sept.	Ang.	July	June	May	April	March	Feb	Jan	
Dec 30.24	. 30.04	Oct 29.96	29.90	29.90	29.85	29.94	May 30.03	30,10	March 29.98	Feb 29.90	. 29.93	est.
3oth	22nd	23rd	12th	29th	28th	9th	Sth	8th	25th	5th	5th	Date.
28.57	28.60	28.73	28.80	29.01	29.10	28.91	29.13	29.46	29.03	28.50	28.94	Low- est
20th	18th	4th	30th	21st	20th	23rd	18th	30th	ist	21st	29th	Date.
1.67 29.51 51°	1.44 29.54	1.23 29.39	1.1029.40	0.8929.67	0.75 29.47	1.03 29.59	0.9029.64	0.6429.77 70°	0.95 29.66	1.40 29.17	0.99 29.56	Range Mean.
510	54.	63°	67°	°18	77°	78°	68°	70°	58	53	49°	High-
1.4th	4th	16th	5th and 6th	18th	9th	19th	5th and 15th	25th	26th	20th	31st	Date.
24.	29°	300	36°	±,	488	43.	37°	30°	27°	25°	100	est.
2nd	27th and 19th	31st	23rd	6th	16th and 28th	15th	7th	14th	19th	27th	5th	Date.
27°	55	33°	31°	37°	29°	35°	31°	ŧ.,	31°	28°	33°	Range Max.
43.2	43.6	53.6		67°	64.	53°	8,	560	480	410	37°	Мак
43.2 36.3 6.9 38°.96 93	43-6 37°	53.6 42.7 10.948°.18	58°.2 47°.5 10°.7 52°.8	60°	51.0	49°	\$.	389	35°	33°	31°	Min.
6.9	6°.6 40°	10.9	10°.7	70	13°	140	16°	88	13°	00	9	Mean Dry range, bulb.
38°.96	400	81.8	520.8	63°	08	56°.6	CAL 10 <sub>0</sub>	47°	410	37°	34°	Pully
93	100	100	100	94	100	100	93	93	91	100	90	High-
6th	19th	14th	1st and 27th	3rd	13th	9th	5th, 14th and 19th	18th	3rd and	4th, and 16th	23rd	Date.
75	59	66	67	67	64	60	50	57	81	72	75	Low-
14th	5th	26th	24th	21st and 22nd	Sth	16th	7th and	13th, 24th, and 25th	21st	28th	14th and 21st	Date.
86	84	82	8	78	79	78	75	75	77	89	86	Mean.

Meteorology Summary for Year.

	Maximum.	Minimum.	Mean.
Barometer	 30.24	28.50	29.53
Thermometer	 81°	16°	47°-37
Humidity	 100 degrees	50 degrees	80 degrees

Four Feet Ground Temperature, 1893.

	Date.			Degrees Fahrenheit.	Dates.	Degrees Fahrenhei
January	Ist	to	12th	40.1	July 1st to 12th	52
2.1	13th	to	18th	38.3	,, 13th to 17th	51.8
11	19th			39.2	,, 18th to 31st	
11	29th			40. I		
					August 1st to 7th	52
February	Ist	to	15th	40. I	,, 8th to 14th	53.6
11	16th			41	,, 15th to 23rd	
33	21st			40. I	,, 24th to 26th	54-5
11	23rd			39.2	,, 27th to 31st	53.6
,,	26th	to	28th	38.3		
				10000000	September 1st to 3rd	53.6
March	1st			39.2	., 4th to 7th	
11	6th			40. I	,, 8th to 16th	
3.1	20th			41.0	,, 17th to 21st	
,,	27th	to	31st	40.1	,, 22nd to 30tl	51.8
April	ist			41.0	October 1st to 3rd	51.8
2.2	18th			41.9	,, 4th to 7tl	50.9
**	21st	to	30th	42.8	,, 8th to 27tl	50
					,, 28th to 31st	49.1
May	Ist			42.8		1
11	6th			44.6	November 1st to 4tl	47.3
11	10th			45.5	,, 5th to 12th	
22	15th			46.4	,, 13th to 20th	
11	26th	to	31st	47.3	,, 21st to 30tl	h 44.6
lune	Ist	to	14th	48.2	December 1st to 3rd	d 42.8
11	15th	to	16th	50.0	,, 4th to 9th	
3.7	17th	to	30th	51.8	,, 10th to 31st	

Cholera Survey.—Dr. Horne, Local Government Board Inspector, made a special sanitary inspection of the town in July. As the result of his observations he made the following Recommendations:—

1.—The sewering and draining of the district should be done as quickly as possible. 2.—The Sanitary Authority should take into immediate consideration what method for the disposal of excrement and refuse will be best adapted for the circumstances of their District, in place of the large privy middens, which in their present form are a source of nuisance of the gravest kind, and cannot fail to be injurious to health.

Where possible water closets may be used with advantage.

All privies at present causing nuisance should be at once dealt with.

- 3.—The contents of the privy middens should be removed at intervals of not longer than a fortnight.
- 4.—Regular house to house inspection should be made with a view to detecting defects in house drains. Such defects should be at once dealt with.

Yards and open spaces about houses should be properly levelled and paved, so as to secure efficient drainage and cleanliness.

5.—Dwellings, which from dampness, want of ventilation, dilapidation, or other structural defects are unfit for habitation should be placed in proper repair, or permanently closed.

Special attention should be given to dampness in foundations and walls.

- 6.—The Bye-Laws should be enforced.
- 7.—The Notification Act should be adopted.

#### WM. LOVELL HUNTER,

Medical Officer of Health.

#### PUDSEY LOCAL BOARD.

## INSPECTOR OF NUISANCES

#### ANNUAL REPORT,

#### 1893.

#### TO THE MEDICAL OFFICER OF HEALTH.

DEAR SIR,

I have the pleasure of submitting to you my Annual Report for 1893.

#### Nuisances and Sanitary Defects.

- 1077 Nuisances and Sanitary Defects have been recorded in the "Journal of Inspector of Nuisances" during the year.
- 1022 Nuisances and defects have been abated and remedied, 107 of which were remaining over from 1892, leaving 162 on the books as not abated for 1893.

#### Complaints of Nuisances.

the year. These have been investigated and action has been taken where necessary.

#### Correspondence.

Legal Notic		 	62
Preliminary	Notices	 	180
Letters		 	506

#### Summary Shewing Result of Correspondence.

Nu	isances	abated	by I	Legal	Notice	142
Ву	Prelim	inary N	Votice	and	Arrangement	 935

Total ...1077

#### Sewering.

About 260 yards of Main Sewering has been laid through the Property of the Great Northern Railway Company near the Greenside Station. This section of Sewer provides an outlet for the Sewers from Greenside, Smalewell Road, and has enabled the Board to turn the said sewers out of a water-course and divert the same into the New Street Sewer. The above-named section of Sewer completes the sewering of a considerable portion of the Greenside district.

#### House Drainage.

- 7762 Feet of house drains have been laid, and, chiefly in the place of old rubble drains which have been dug out.
  - 198 Houses have been re-drained with sanitary tubes of 4in. and 6in. diameter.
  - 417 House drains have been trapped.
  - 336 Sink pipes, &c., have been disconnected.
    - 36 Systems of drainage have been ventilated.
- 2472 House gullies and 58 drains have been cleansed.

#### Privy Accommodation.

- 208 Houses have been provided with additional privy and ashpit accommodation.
- 114 New Privies have been built in place of old ones which have been condemned and pulled down.
  - 70 Privies have been altered according to the Model Plan approved by the Board.
  - 55 New Ashpits have been built in the place of old ones which have been pulled down, and the soil contiguous with the bottoms which was found to be impregnated with foul matter removed.
  - 26 Ashpits have been concreted, cemented, and furnished with proper doors and coverings.

#### Summary of General Nuisances.

Houses and Premises cleansed	 39
Accumulations removed	 38
Animals removed	 29
Cases of overcrowding	 6

#### Collection and Disposal of Night-Soil.

For the purposes of the collection of night-soil and house refuse the Town is divided into 12 Districts, which are let annually by contract to the farmers in an about the District, who dispose of the night-soil on land. The Contracts provide that the privies and ashpits shall be cleansed at least 12 times during the year, and forthwith on receiving notice from the Inspector of Nuisances.

During the year all the ashpits have been numbered, and a system of registration introduced. The Contractors are supplied with forms printed on post cards with the following particulars to be filled in:—Date, No. of sub-District, No. of ashpit, No. of Loads removed. These cards are supposed to be filled up and returned at the end of each working week. This system has many advantages and every Contractor should be made to return the cards properly filled in, and should be deemed to have failed to fulfil his contract unless he does so.

The following summary will show some of the more interesting points respecting this very important Department of the Sanitary work during the years 1892 and 1893.

Particulars.	1892.	1893.
No. of Notices to Contractors	250	171
" " Complaints of Full Ashpits	107	29
" " Loads removed (estimated)	6148	6148
" " " per working day	21.4	21.4
	£ s. d.	
Total cost per annum	418 18 0	518 0 0
Average cost per load removing about	0 I 4	o 1 8

#### Estimate of Probable Cost of doing the Work by Day.

				£	s.	d.
3 Teams, including Cartman, 287 days	at 6/6	per tean	per	day274	16	6
2 Men for throwing out, 287 days, at 4/				114	100	
For tipping and other contingencies		•••	•••	30	0	0
				£419	4	6

#### Number of Inspections made During the Year.

Houses and	Premises	Inspect	ed		597
Re-inspections	, Works in	Progre	ess, &	c	1675
Inspections of	Cowshed	ls			95
Inspections of	f Slaughte	er-house	es		60
Inspections of	Common	Lodgi	ng-ho	uses	77
Inspections o	f Market,	Food,	&c.		52
		Total			2576

#### Cowsheds.

- 25 Cowsheds have been amended as regards drainage.
- 13 Have been amended as regards Ventilation.
  - 3 Have been amended as regards Lighting.

#### Common Lodging Houses.

The Common Lodging-houses have as a rule been found in good order and on account of the prevalency of Small-pox in the district and adjoining Towns the keepers have been furnished with schedules to fill in as provided in the Public Health Act, 1875.

#### Slaughter Houses.

The Slaughter Houses have from time to time been inspected and 4 have been amended as regards paving and drainage.

R. W. CASS, Cert. Assoc., San. Ist., Inspector of Nuisances.