



# Public health and local government, 1798 to 1914 [OLE3039]

Dr Tom Thorpe BA MA MCIPR

# Objectives

- Explore a broad overview of ideas of disease, illness and treatment between 1798 to 1914 to give a context.
- Examine 4 public health problems: typhoid, cholera, TB, smallpox & childhood diseases.
- Consider policy responses to public health problems: occupational licencing, public baths, food standards and safety and urban planning.



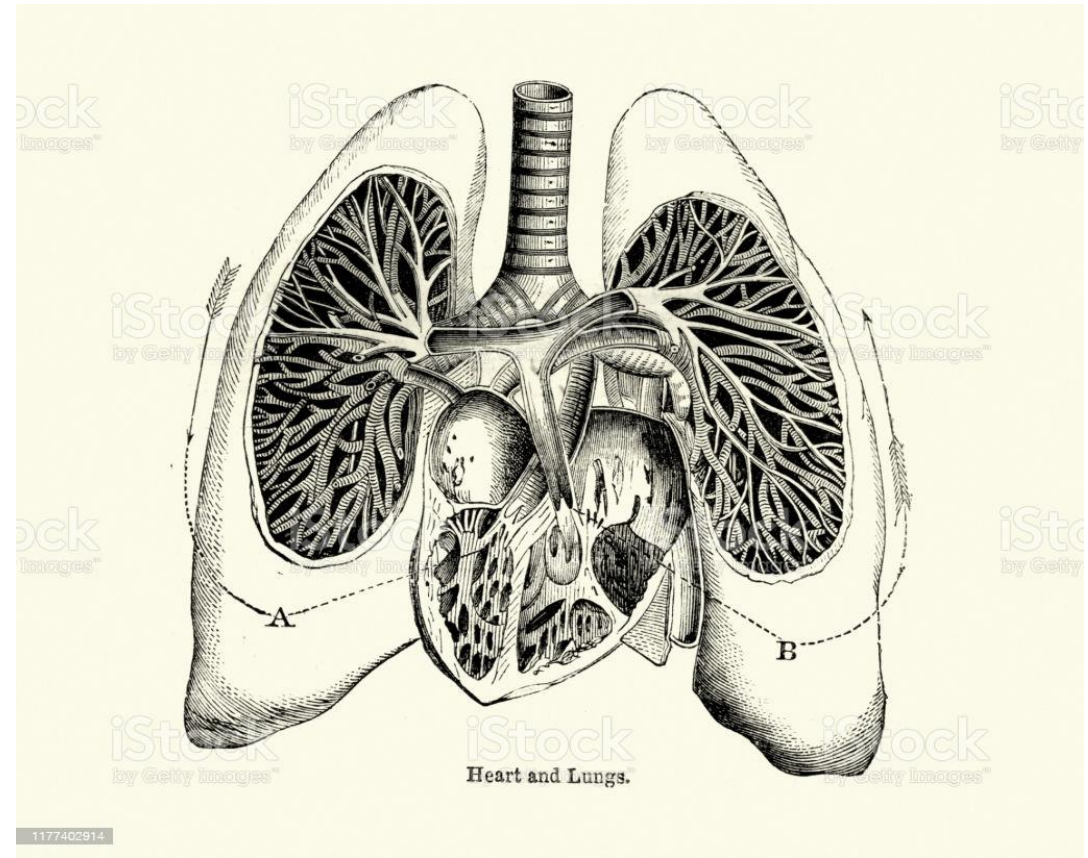
# 19<sup>th</sup> century ideas of disease and illness





# Early 19<sup>th</sup> ideas of the body

- Doctors had a clear idea about anatomy but belief that 'vital forces' were focused on the haematological and nervous systems.
- Gradually replaced by ideas of sexual determinism where biological sex determined all aspects of physiology, health and social behaviour.
- Body seen as a 'closed' system with mental, physical and reproductive systems held in competition for energy. As a consequence, 'rest' was often seen as an important cure for malady.





# Ideas of disease

Disease caused by:

- ‘inherited susceptibility’ (today’s genetic component)
- ‘individual intemperance’ (i.e. lifestyle, especially the poor)

Abetted by:

- Climate and location – ‘productive of noxious exhalations’ (e.g. environmental causation)

Water or air-borne infection not accepted.

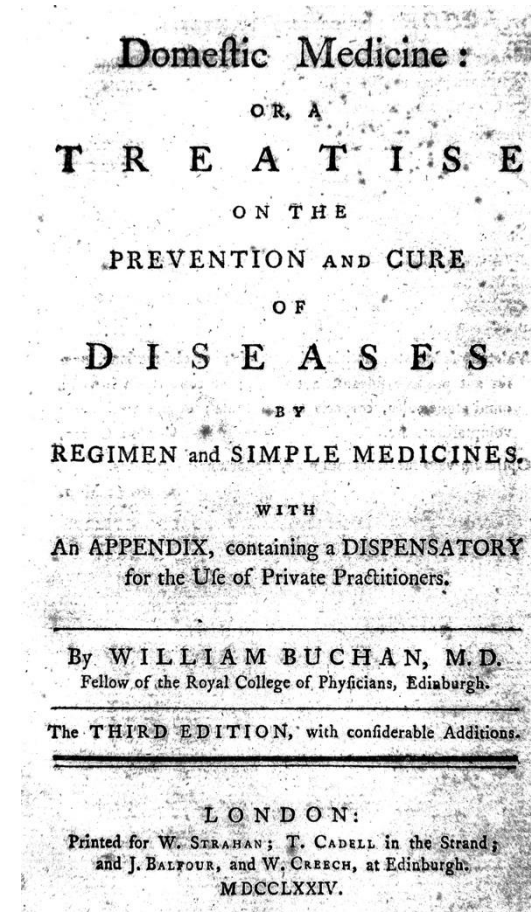


# Buchan's Domestic Medicine (1848)

Disease or fever could be caused by:

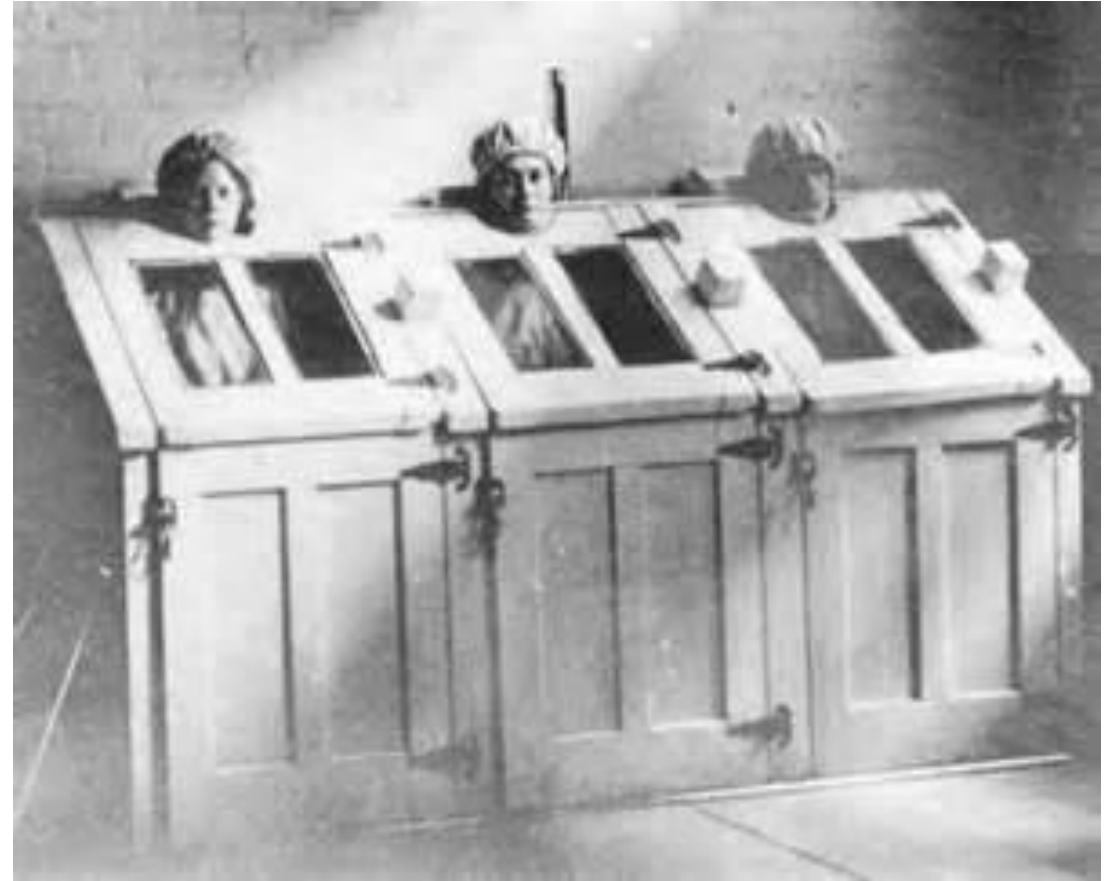
- 'diseased parents'
- 'night air'
- 'bad air'
- 'sedentary habits'
- 'violent emotion'

Cholera caused by caused by rancid or putrid food, by 'cold fruits' such as cucumbers and melons, and by passionate fear or rage.



# 'Mental conditions'

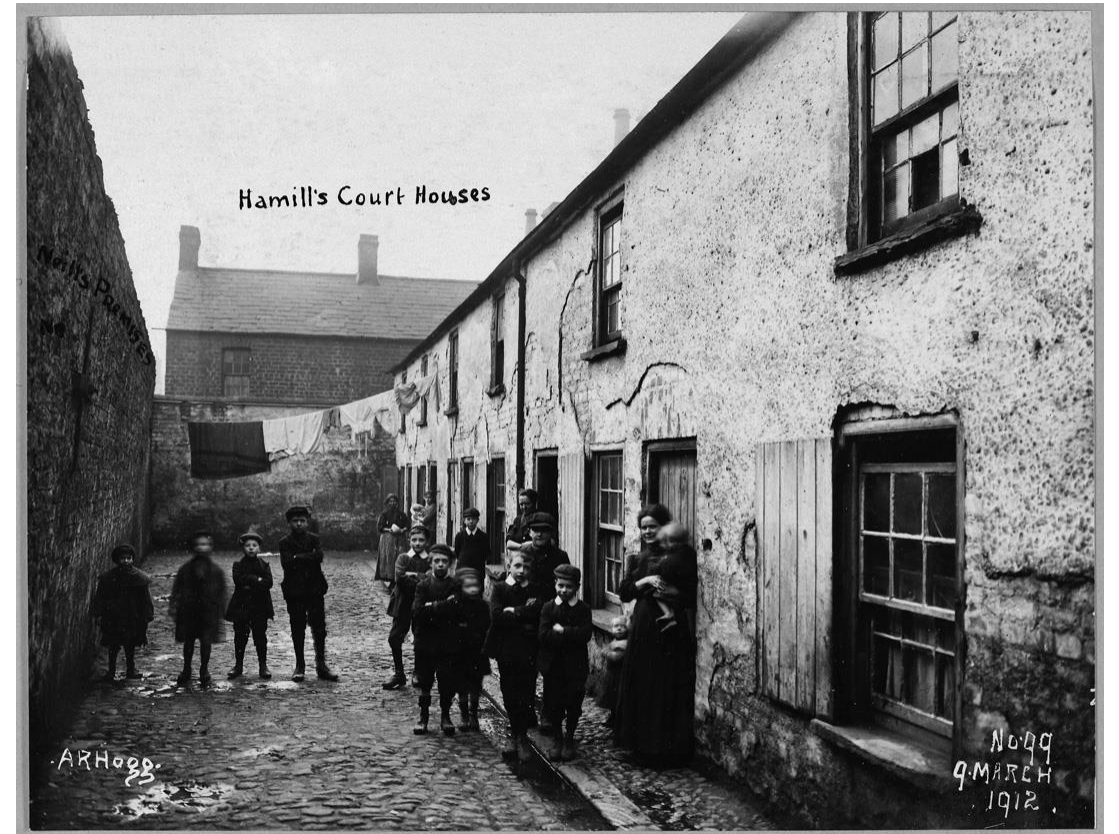
- Phrenology was used to explain mental health conditions. This identified temperamental characteristics such as aggression or lust ('amativeness') by means of lumps and bumps on the individual skull, and facial physiognomy.
- E.g. July 1841: The eminent member of the Glasgow Phrenological Society, Mr. Goyder, will present a lecture on this popular science in Belfast.
- Ideas of mental disturbance retained largely traditional concepts such 'melancholic' and 'choleric' tendencies, but in 1846 the term 'psychiatry' was coined to denote medical treatment of disabling mental conditions, which were generally held to have hereditary causes.





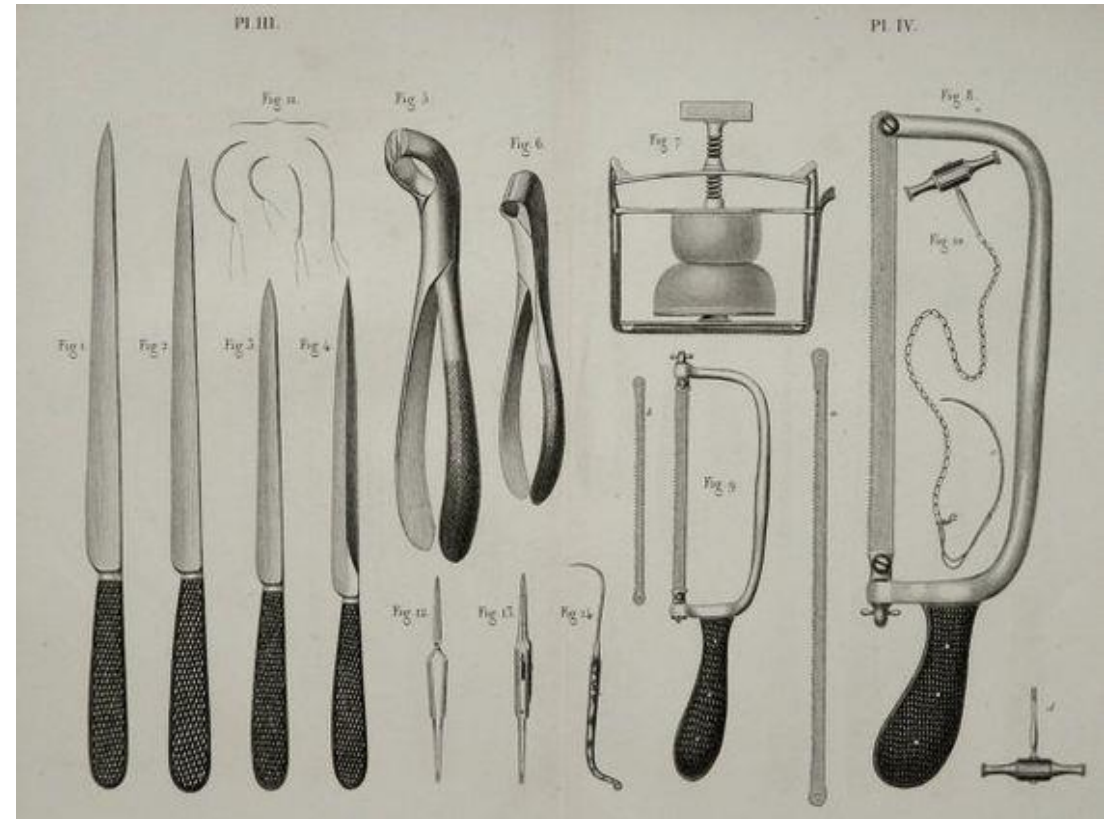
# Health became a problem in towns

- Movement of rural poor to cities created dense overcrowded ghettos.
- Poverty was rife and many had poor health.
- Poor housing and sanitary conditions made the situation worse.
- These conditions aided the spread of disease.



# Medical & scientific understanding improves

- The biochemical understanding of physiology began in Germany in the 1850s, together with significant work on vision and the neuromuscular system.
- Louis Pasteur laid the foundations of the germ theory of disease based on the identification of micro-bacterial organism.
- 1898: Robert Ross proved the mosquito's role in transmitting malaria.



# Technological developments

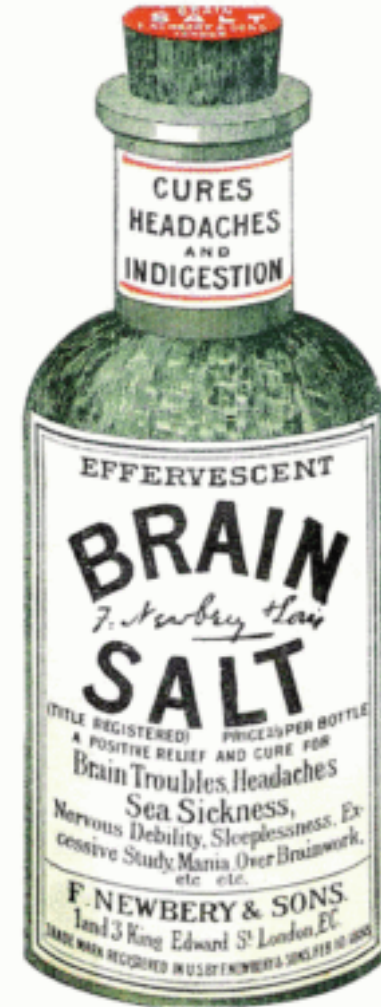
- In 1817, the stethoscope, invented in France, began to aid diagnosis of respiratory and cardiac disorders, became the symbolic icon of the medical profession.
- The ophthalmoscope and improved microscopes revealed micro-organisms.
- The kymograph was invented to measure blood pressure and muscular contraction.
- 1895 - Wilhelm Roentgen discovered X-rays.





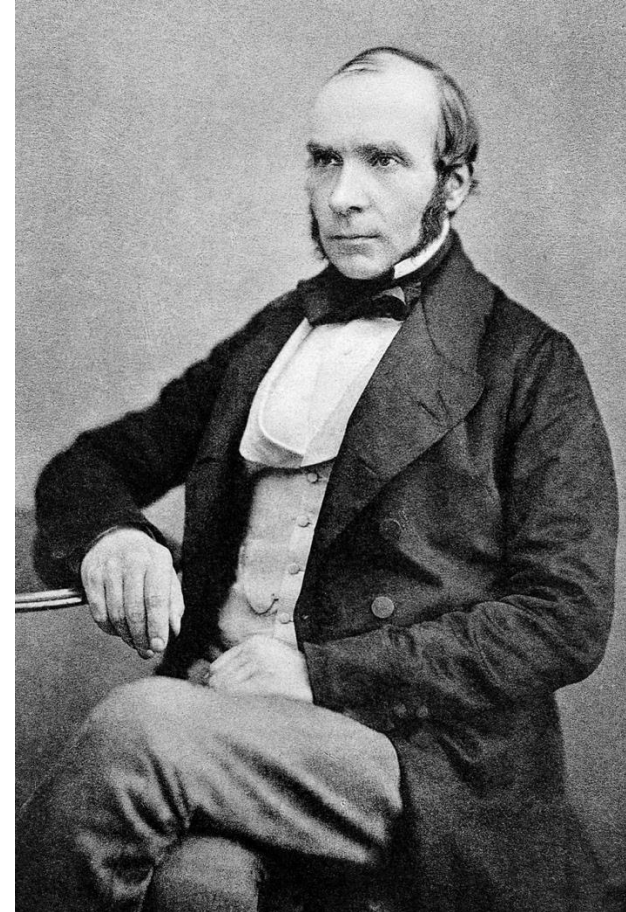
# Pharmaceutical developments

- Surgery advanced - or at least increased - owing largely to the invention of anaesthesia in the late 1840s.
- October 1846 - public demonstration of the effects of ether.
- Queen's confinement in 1853 aided by chloroform.
- Joseph Lister (1827-1912) used carbolic acid (phenol) from 1869 as an anti-septic.



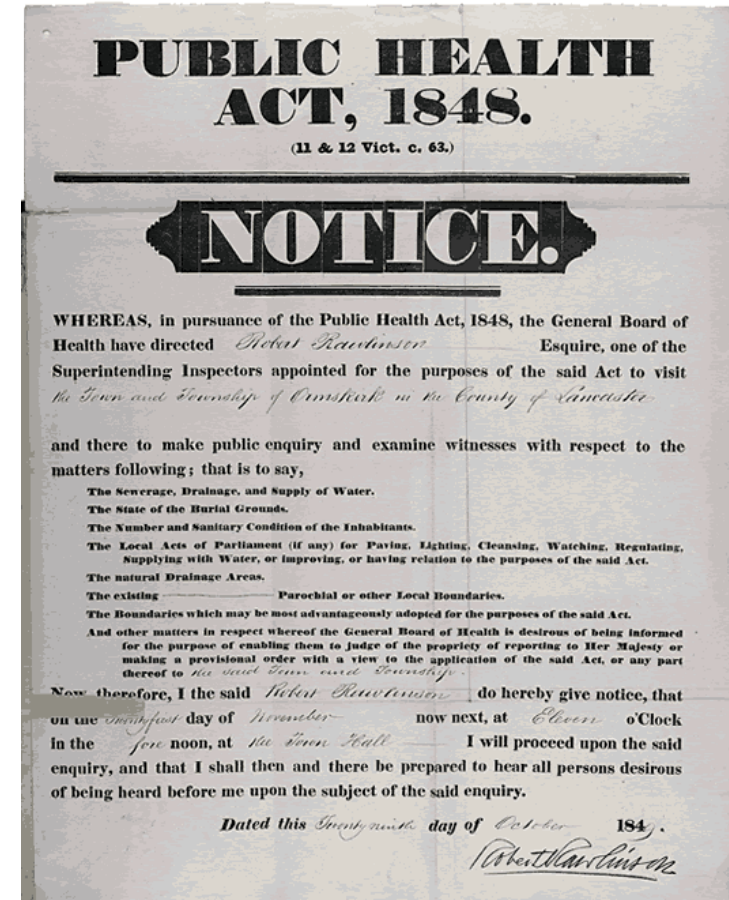
# Dr John Snow and cholera in London

- 1854; demonstrated the disease spread not by miasmas but by contaminated water from a public pump in crowded Soho.
- When the pump handle was removed, cholera subsided.
- Showed that death rate from cholera was 14x higher in areas where sewers polluted the water supply.



# Public health legislation

Between 1847 and 1900 there were 50 new statutes on housing, ranging from the major Public Health Acts of 1848 and 1872 to the 1866 Lodging Houses and Dwellings (Ireland) Act, the 1885 Housing of the Working Classes Act and the 1888 Local Government Act.





# Changes in ideas of mental health

- Men and women were housed in separate wards and put to different work, most devoted to supply and service within the asylum.
- The use of mechanical restraints such as manacles and muzzles was steadily phased out in favour of 'moral management', although solitary confinement and straitjackets continued to be used.
- By the end of the era therapeutic hopes of restoring patients to sanity were largely replaced by programmes of control, where best practice was judged by inmates' docility.
- As part of the passion for measuring and classifying, patient records and photographs were kept, in order to 'illustrate' the physical evidence or effects of different types of derangement.
- Particular attention was paid to female patients, whose lack of approved feminine qualities was tautologically taken to 'prove' their madness.
- Towards the end of the 19th century, the term 'neurasthenia' came into use to describe milder or temporary nervous conditions, especially among the educated classes



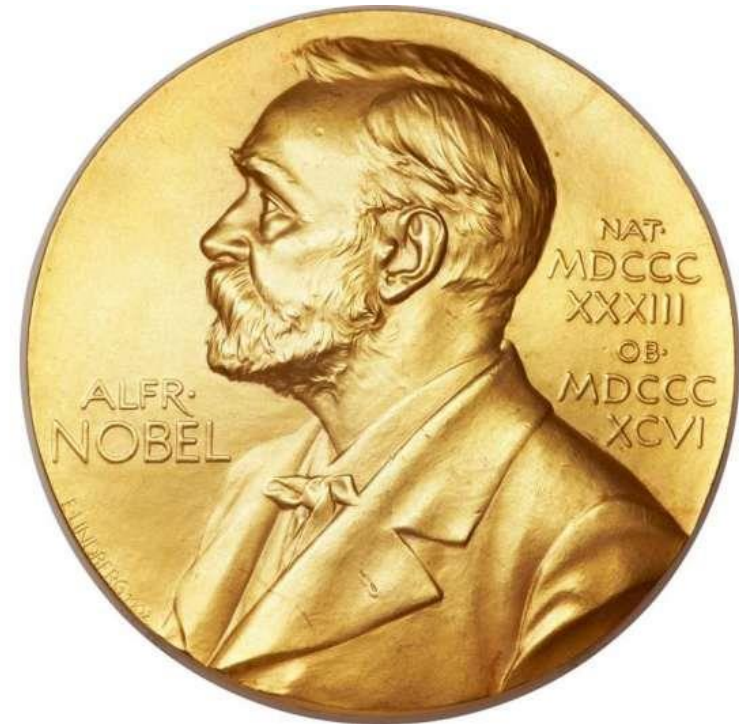
# Growth of the medical workforce

- Doctors: there were 14,415 physicians and surgeons in England and Wales in 1861 and this rose to 22,698 (of whom 212 were female) in 1901.
- Dentists: the number of dentists rose from 1,584 in 1861 to 5,309 (including 140 women) in 1901.



# International medical co-operation & awards

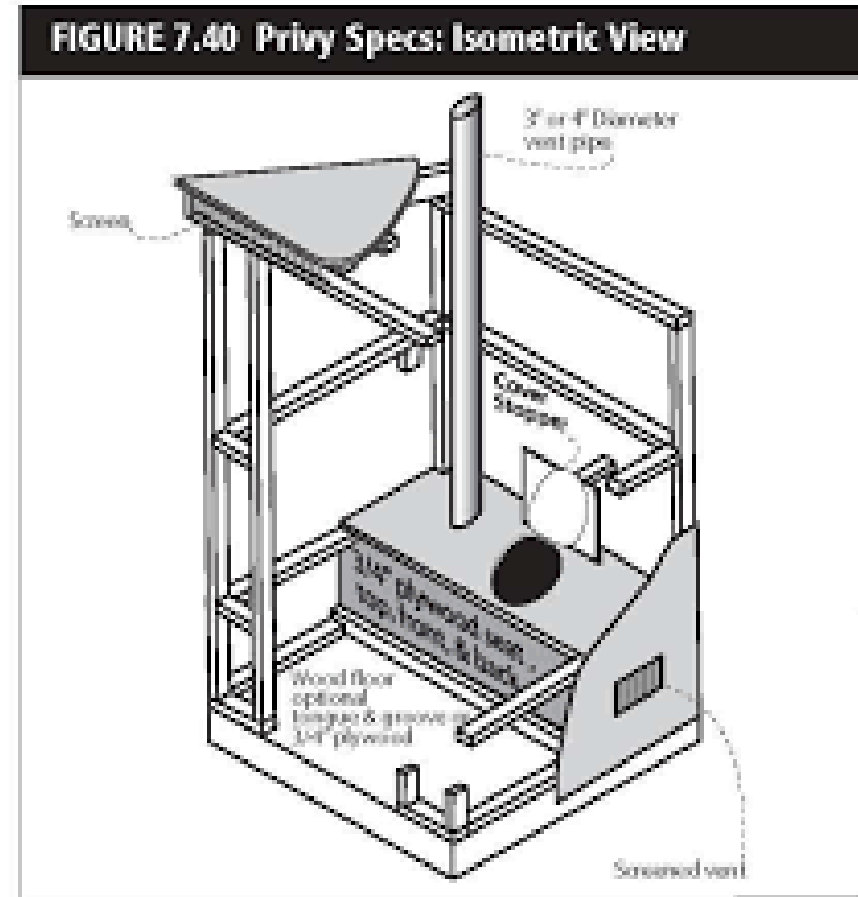
- The 7th International Medical Congress in London, 1881 had 3,000 delegates from 70 countries.
- The death of Alfred Nobel in 1896 gave rise to the Nobel Prizes, with three of the five awarded for science: chemistry, physics and medicine.



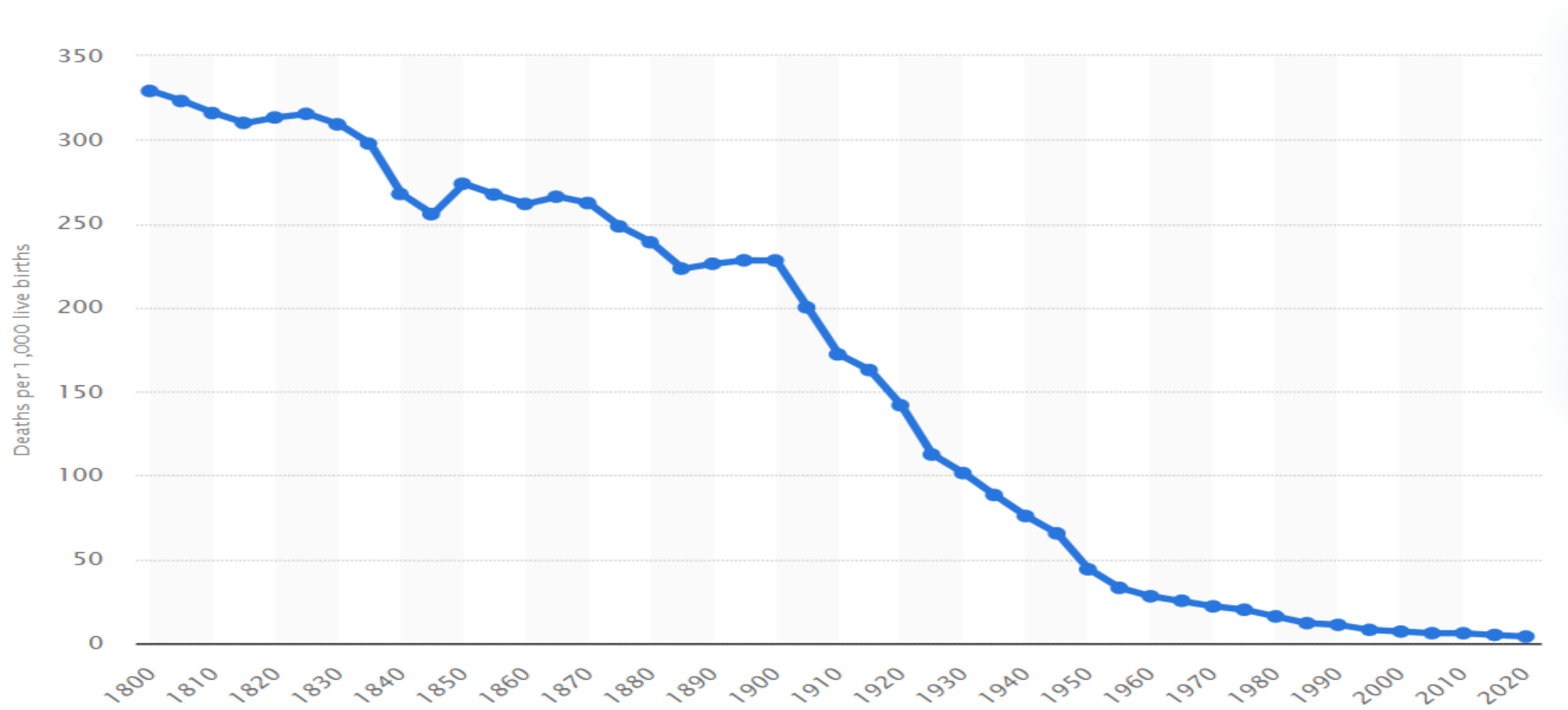


# Domestic arrangements

- Toilets: privy middens replaced by outdoor (or indoor) water closets.
- Entrances: houses increasingly built with back and front entrance making it easier to remove waste products more hygienically.
- Heating & light: gas lighting replaced candles which was in turn replaced by electricity. These developments reduced pollution and fire risk.



# Child mortality rate (under five years old) in the United Kingdom from 1800 to 2020



# Mortality declined

- 1847: UK mortality in 1847 was around 1 in 50 where as Belfast's was 1 in 35. Drink and drunkenness was a major problem. Life expectancy was calculated by a Dr Malcolm at the time at 9 years.
- Death rate fell from 21.6 per thousand in 1841 to 14.6 in 1901 in Belfast.
- UK child mortality declined (5 under), for every 1,000:
  - 1800: 329 died
  - 1900: 153.1 died (Belfast)
  - 1915: 162 died



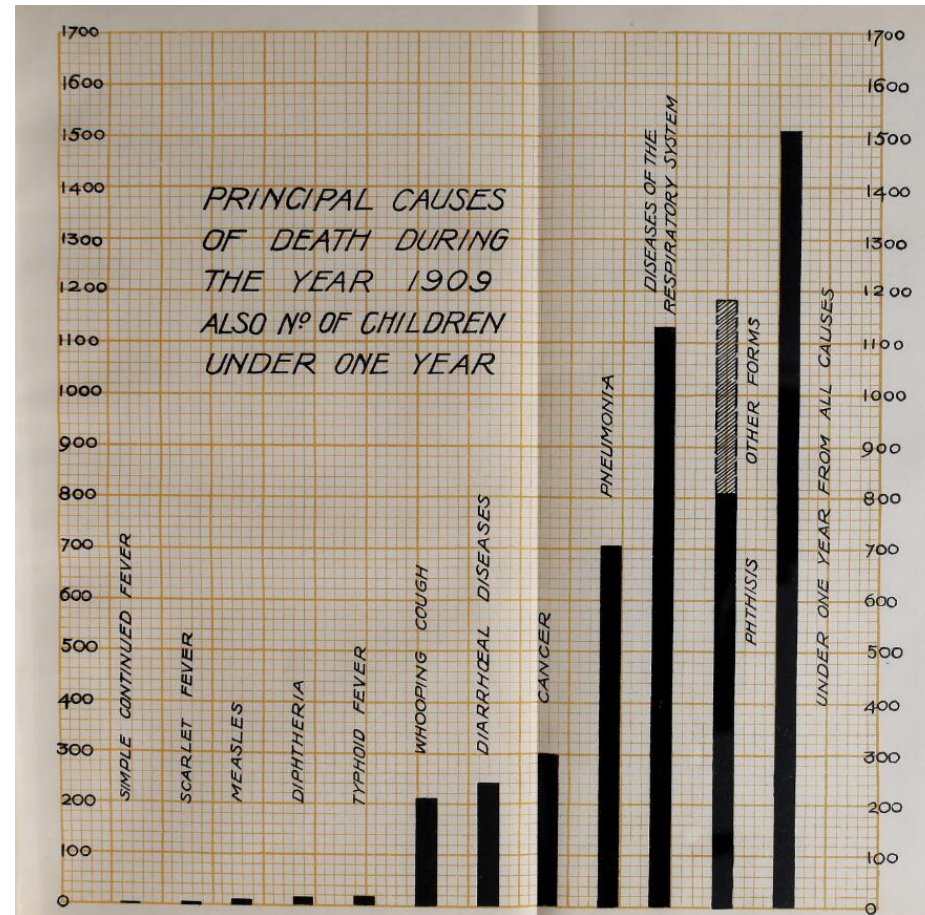
# Health remained poor in some areas

- 2/3 of recruits from Manchester during the Boer War rejected as 'virtual invalids'.
- Fears of degeneration and imperial decline.
- Social surveys by Booth/Rowntree identified link between poor health and poverty.
- 1896: doctors were reported to blame the high mortality rate in Belfast has been attributed to 'bad sanitation, both public and domestic, deleterious food, overcrowding and drink,'





# Major causes of infant death, 1909



Principal Causes of Death during the Year 1909, Medical Officer of Health Report, Belfast County Borough., 1909

Quack cures were still available



# For Coughs of Children

Mothers will appreciate the advantage of having a cough remedy for their children which is approved by doctors, and which can be given to children with certainty of benefit. The little ones are peculiarly susceptible to the soothing and tonic influence of Angier's Emulsion, and it must be a very bad cough indeed that will not be quickly relieved by its use. Angier's Emulsion is strongly recommended by the medical profession for colds, coughs, whooping cough, bronchitis and all lung affections; also for scrofula, rickets, and wasting diseases generally. Of all chemists and drug stores, 1/-, 2/6 and 4/-.

## ANGIER'S EMULSION

"After Fifteen Years' Experience."  
69 Lodge Road, Southampton.

Dear Sirs.—I am thoroughly convinced that Angier's Emulsion is the best article of its kind in the market, and can testify to its value after fifteen years' experience. It has always been given to my children whenever they have had a bad cold or were run-down, and has never failed to do all that is claimed for it. It cannot be too widely known, and I never miss an opportunity of recommending it to my friends.  
(Signed) H. Y. SCOTT.

**Free Sample** Name .....

**Coupon.** Address .....

F.D. Fill in Coupon and send with 3d. for postage to the  
**ANGIER CHEMICAL CO., Ltd., 88 Clerkenwell Road, London.**

## WHOOPING COUGH

RELIEVED IN ONE NIGHT BY  
**VENO'S LIGHTNING COUGH CURE.**

Mr. J. H. Small, of 41 Parkes Street, Brierley Hill, gives the following interesting account of his little girl's cure from a severe attack of whooping cough by Veno's Lightning Cough Cure. Mr. Small writes:—  
"My youngest girl, Gertie, suffered for three or four weeks from a bad whooping cough. She was always worse during the night, coughing for several minutes at a time. We tried various so-called remedies, but all to no good, so at last we decided to try Veno's Lightning Cough Cure. We gave her three doses shortly before going to bed, and she did not cough once that night, and now she is quite well and going about as usual."

Veno's Lightning Cough Cure is the purest, safest, and most reliable remedy extant for coughs and colds, bronchitis, asthma, catarrh, sore throat, hoarseness, old-age coughs, children's coughs, and all chest and lung troubles. Price 9½d, 1s 1½d, and 2s 9d, of all chemists and drug stores everywhere. 66864

## WHOOPING COUGH

cured in a few days by using RICHARDSON'S WHOOPING COUGH CURE, 1s and 2s 6d per bottle, by post 3d extra, only from THE RICHARDSON COMPANY, 51 Donegail Pass, Belfast. PH2012

# The Home could contain dangerous items...

- May 1894: An inquest was held into the death of Jane Wilson, who died at 43 Tomb Street, after a paraffin lamp exploded. This was the fifth death in the last week due to paraffin lamps exploding. The jury concluded that death was due to shock consequent of burns received. The jury added the rider that MPs should note the number of accidents involving paraffin lamps and take steps to prevent the sale of unsafe lamps and low quality oil.
- November 1894: Ellen Wylie of 104 Northumberland Street was admitted to the Royal Hospital suffering burns to her arms and face caused by a paraffin lamp explosion.







Health and hospitals

# Institutions





# Clifton Poor House

- In 1752 the Belfast Charitable Society was founded by a group of mostly Presbyterian merchants and industrialists who sought to erect a Poor House and an Infirmary- the infirmary, which opened in 1774, was the first hospital in Belfast.
- Dispensary opened in 1792.
- It provided in the Poor House and the Infirmary was administered by many of the doctors based in Belfast at the time, free of charge.
- No fewer than eight Dr Purdons attended the House and Infirmary in an unbroken run from 1804 until 1947.
- By 1806 there were only nineteen physicians and surgeons working in the town of Belfast. Many of them were exceptionally generous with their time and skills, donating both to the new philanthropic medical facilities opening in 19th century Belfast.
- 1845-8 Famine stretched medical provisions in the town to breaking point.
- By May 1846 the situation was so dire that the Poor House agreed to take all medical and surgical cases from the other hospitals so they could focus on fever victims. The death toll was sadly very high.
- Additional wings of the Poor House opened in 1872 funded by Edward Benn.



# The Lying in Hospital

- Belfast's first maternity hospital was established in 1794 due to the efforts of a small group of philanthropists.
- Opened in a house rented to them by the Belfast Charitable Society at 25 Donegall Street.
- The aim of the hospital was to aid labouring 'indigent females' by providing accommodation, food and medical supervision during childbirth
- Rev. John Clark, curate of St. Anne's Belfast, and Mrs Martha McTier, the wife of Samuel McTier and sister of Dr William Drennan, have been attributed as the founders of this institution.
- Martha McTier was elected as the first Secretary 'to her surprise'.
- Run by a committee of 'Ladies' for much of its time.
- A new hospital, 'a commodious building', was built 'at the upper-end of Donegall Street' in 1830.
- Remained a maternity hospital until new hospital opened in Townsend Street in 1903.



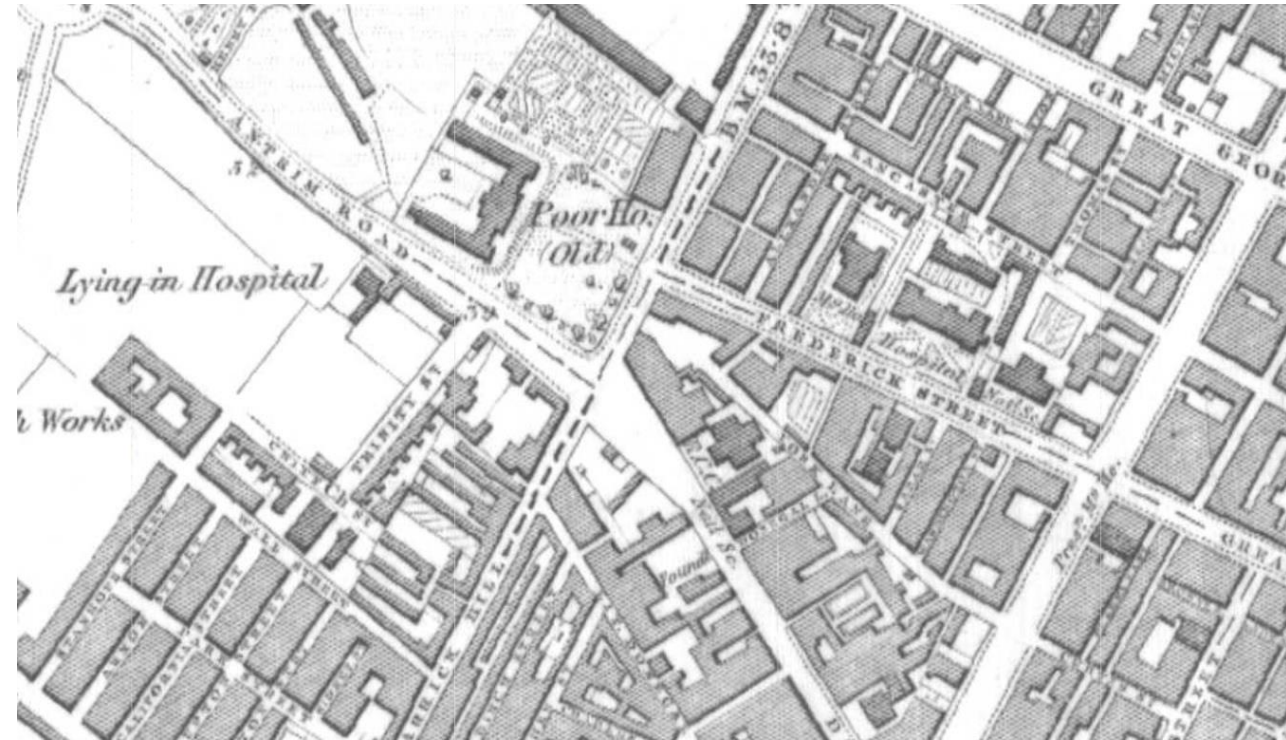
# Townsend Maternity Hospital

- Located at 95 Townsend Street, West Belfast and funded through the Charitable Society.
- Started operation in 1904 and was itself replaced by the Royal Maternity Hospital in 1933.
- 18 women in the hospital for the 1911 Census.
- Many drawn from working class occupations such as spinner and charlady.



# General Hospital - background

- Hospital opened in 1797 as the Belfast Fever Hospital and General Dispensary, located in Factory Row.
- This moved to West Street in 1799, and then to Frederick Street in 1817.
- In 1847 the hospital became the Belfast General Hospital (right, 1846 map).
- Services move to the RVH in late 1900s.





# General Hospital operation and capacity

- In April 1846 an additional shed had to be erected at the General Hospital, and to accommodate the number of people needing treatment they reopened the old Cholera Buildings closed over a decade before. By summer that year the hospital was forced to erect tents which accommodated an extra 700 people.
- May 1847: A town meeting was held to discuss the fever in Belfast. The Union Workhouse originally had space to accommodate one hundred and fifty patients but has now space for 500, due to utilising sheds and any other space available. The General Hospital has also reached capacity with 96 fever patients, 72 patients suffering from dysentery and 38 suffering from small pox.
- June 1847: There are 1,709 patients in the General Hospital, of which 70 are suffering from dysentery or small pox; the remainder are suffering from fever.





# General Hospital



# Who goes to the General Hospital?

In July 1871:

- A man named Magee was admitted into the General Hospital suffering from a severe laceration of the foot, received by coming in contact with a reaping machine at the Model Farm, Dunmurry.
- A little girl named Bridget McCormick was admitted into the General Hospital suffering from a broken arm, which she sustained by the wheel of a van going over her on the Crumlin Road.
- Alexander Cupples was admitted into the General Hospital, having his right arm pulled from its socket and one of his legs broken by coming into contact with the belting of a box-making establishment.
- Two young women named Margaret McBride and Rose Macrory were admitted into the General Hospital suffering from injuries to the hand sustained in a mill in town. They appear to have come in contact with some part of the machinery, and the result was that each of the girls were injured, so as to necessitate the amputation of a finger.



# Corporation ambulance, 1910





# Numbers, 1815-1850

MONTHLY ADMISSIONS, IN THE FEVER EPIDEMICS, SINCE 1817.

Months.	YEARS.																					
	1818	1819	1824	1825	1826	1827	1828	1830	1831	1832	1835	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845	1847
January ... ..			40	72		67	44	*52	78		*48	195	150	77	145	138	89		198	104		
February ... ..			54	61		70	53		65	76		62	197	108	98	196	192	58	38	239	82	
March ... ..			39	73	45	43	41		57	84		66	286	134	85	226	143	74	125	203	85	
April ... ..			58	75	45	103	41		57	100		98	338	102	80	128	100	67	62	140		134
May... ..			66	41	55	72	53		64	68		116	322	75	94	143	110	70	88	250		790
June ... ..			64		43	35	38		105	58		25	388	86	75	197	92	54	66	150		1106
July ... ..			55		78	45	50	33	117	47		81	330	87	124	128	152		62	133		1242
August ... ..			55		105	32	42	55	72			88	328	75	135	134	132		160	143		861
September ... ..			52		94	40	48	43	74			118	298		152	120	103		220	157		574
October ... ..			57		108	84		62	81			149	242		102	106	102		384	197		353
November ... ..			46		90	50		46	105			34	119	194		146	173	64		348	132	69
December ... ..			46		70	60		52	88			71	160	187		215	135	119		254	93	
								70				182	173									
Total ... ..	1515	1258																				
	1817.8.9		1824.5		1826.7.8		1830.1.2†		1835.6.7.8		1839.40.41.2		1843.45		1847.8†							

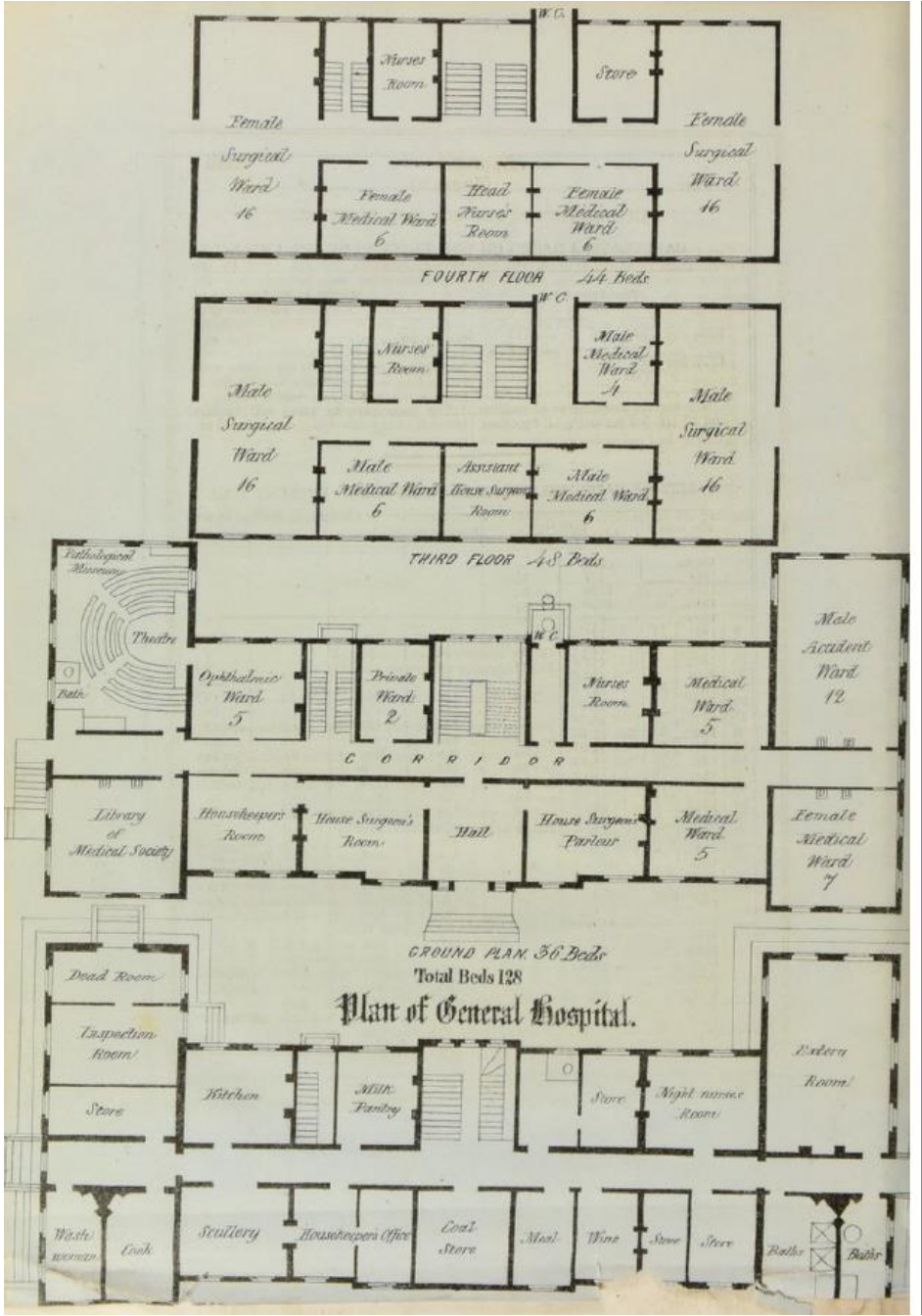
\* Asiatic Cholera immediately followed the decline of the epidemic. † Asiatic Cholera immediately followed the decline of the epidemic.  
 † These columns refer to lunar months.

## LIST OF PATIENTS ADMITTED FROM 1845 TO PRESENT TIME.

Year ending.	Fever Cases, Admitted.	Deaths.	Medical Cases	Surgical Cases	Accidents.	Surgical Deaths.
1815.....	224	—				
1817.....	197	10				
1818.....	1530	93				
1819.....	1258	62				
1820.....	682	41				
1821.....	727	41				
1822... ..	395	19	54	82		7
1823.....	477	27	46	126		4
1824.....	410	21	94	123	41	9
1825.....	677	21	139	148	59	13
1826.....	288	19	144	154	61	14
1827.....	868	52	137	153	61	12
1828.....	659	29	131	215	94	30
1829.....	484	20	195	226	81	18
1830.....	207	10	195	322	84	16
1831.....	569	40	188	329	94	19
1832.....	1014	73	97	268	90	19
1833.....	546	53	123	271	107	28
1834.....	477	43	170	413	119	23
1835.....	691	68	201	368	120	24
1836.....	528	48	166	387	161	30
1837.....	1878	181	94	255	100	26
1838.....	3187	402	28	232	—	32
1839.....	1067	113	170	353	134	46
1840.. ..	1738	214	113	297	116	20
1841... ..	1709	173	—	281	143	36
1842.....	1162	126	17	285	131	24
1843.....	635	133	33	257	92	16
1844.....	2284	126	25	266	109	16
1845.....	1666	33	33	297	123	19
1846.....	646	65	44	347	156	36
1847.....	—	—	—	—	—	—
1848.....	5153	693	38	378	155	37
1849.....			106	329	124	23
1850.....			257	418	175	—



# The Plan of the Hospital





## REGULATIONS FOR THE ADMISSION OF PATIENTS.

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Two kinds of Relief are afforded by this Charity:—

### I.—INTERN; OR THE TREATMENT OF PATIENTS IN THE HOSPITAL WARDS:

1. Patients of this class ordinarily receive admission, on written recommendations of a Guinea Subscriber, approved of by the Medical Staff and the Committee, who examine such certificates\* at the weekly Board

2. *Urgent* cases of Accident receive *instant admission*, at all times, day or night, without any recommendation.

2. Cases of disease are examined and receive advice, on Monday, Wednesday, and Friday mornings, at 11 o'clock. No recommendation required.

3 *Urgent* cases of illness properly certified† by any of the Attending Staff, receive *admission at all times, in like manner.*

4. Pay-Patients, in *Fever*, attended on certificate of any Medical Practitioner, for the weekly sum of 7s.; One Guinea paid in advance. Pay-Patients, ill of other diseases, admitted by certificate of Medical Staff, approved of by Committee, for sums varying according to circumstances.

### II.—EXTERN:

1. Cases of minor Accidents are attended to every morning at 10 o'clock.

3. Patients requiring medicinal Baths receive such at the Hospital, on producing the Certificate of a Medical Practitioner; on payment (if able) of a small sum.

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# Mental Asylum

- Designed by Francis Johnston and William Murphy, opened in 1829.
- In an important legal case in the mid nineteenth century, the governors of the asylum argued that compulsory religious education of the insane was unwise and successfully persuaded the courts that the Lord Lieutenant of Ireland should not be allowed to appoint chaplains to the asylum.





# STATISTICS OF THE DISTRICT HOSPITAL FOR THE INSANE,

OPENED IN JUNE, 1829.

(Extracted and calculated from the Resident Physician's Annual Reports.)

Year.	Average Number in Asylum.	Mania.	Monomania.	Dementia.	Others.	Deaths per Cent.	Suicidal and Homicidal Cases.	Criminals.
1830	49							
1831	103							
1832	132							
1833	131							
1834	139							
1835	156							
1836	163							
1837	166							
1838	178							
1839	194	...	...	...	...	8.24	12	12
1840	217	...	...	...	...	12.88	7	7
1841	244	61	17	3	31	9.80	22	—
1842	246	77	5	3	31	10.94	14	10
1843	249	79	6	3	35	7.21	—	—
1844	253	80	32	2	...	8.29	12	1
1845	258	83	23	7	...	15.50	30	—
1846	252	60	6	12	29	9.51	17	—
1847	254	69	9	5	30	10.58	27	2
1848	262	82	4	7	47	17.90	32	4
1849	271	66	3	8	43	11.05	27	2
1850	267	67	8	8	37	16.07	30	4
1851	271	71	59	10		10.69	23	—
						av.11.43		

# Mater Infirmorum Hospital

- Founded by the Sisters of Mercy in 1883
- Main hospital opened in 1900 by Sir Robert McConnell, LM of Belfast.



# Mater Hospital





# The Benn Hospitals

- Benn Skin Hospital opened on Glenravel Street in 1875 by Dr Edward Benn (right).
- He also opened the the Benn Ulster Eye, Ear and Throat Hospital. This became the Ulster Eye, Ear and Throat Hospital continued to operate until the development of the Westlink, when Glenravel Street, where it stood, was demolished.
- Additionally, Benn funded a new building for the Samaritan Hospital.



# Benn Hospitals, Clifton St/Glenravel St



# Royal Victoria Hospital

- The first hospital building on the Grosvenor Road site was designed in 1899 by architects Henman and Cooper of Birmingham.
- It was officially opened by King Edward VII and Queen Alexandra on 27 July 1903.



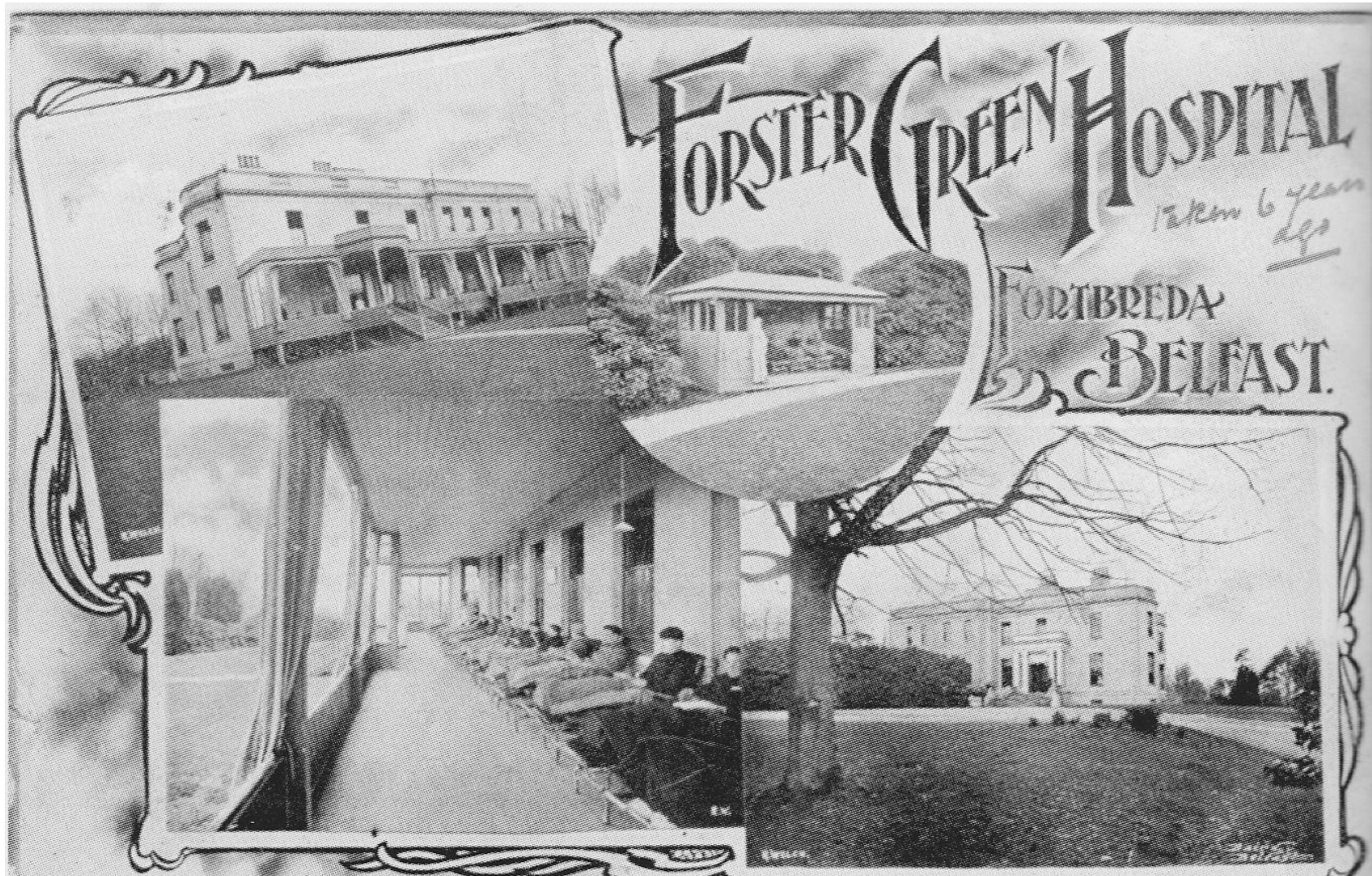


# RVH from Dunville Park





# Forster Green Hospital



# Forster Green Tea Merchants and tea mania

**TANNED BY TEA.**  
**DEATH OF A WOMAN WHO DRANK A GALLON A DAY**

The post-mortem examination at a Manchester hospital on a woman who had died in the institution revealed a curious state of affairs in connection with the digestive organs. When the contents of the stomach had been removed, that organ, instead of being of a soft texture, was found to be extremely hard and firm in appearance, more like leather than anything else. Inquiries proved that the deceased had been a confirmed and heavy tea-drinker, and had been known to drink as much as a gallon of tea per day. The tea, not being of the best quality, no doubt, contained much tannin, and the result of this was practically to act on the soft membrane of the stomach much in the same way as leather is hardened by tanning with oak bark, which contains the same chemical principle. Whilst this case is probably an exceptional one, there is no doubt that much harm is done by excessive tea drinking, especially amongst the poorer classes, who only buy the cheapest tea, containing much tannin, and also allow it to brew indefinitely before drinking it. Very often, indeed, they do not trouble to throw out the used tea when making a fresh infusion.

Belfast  
Telegraph -  
Tuesday 16  
July 1907  
p.4





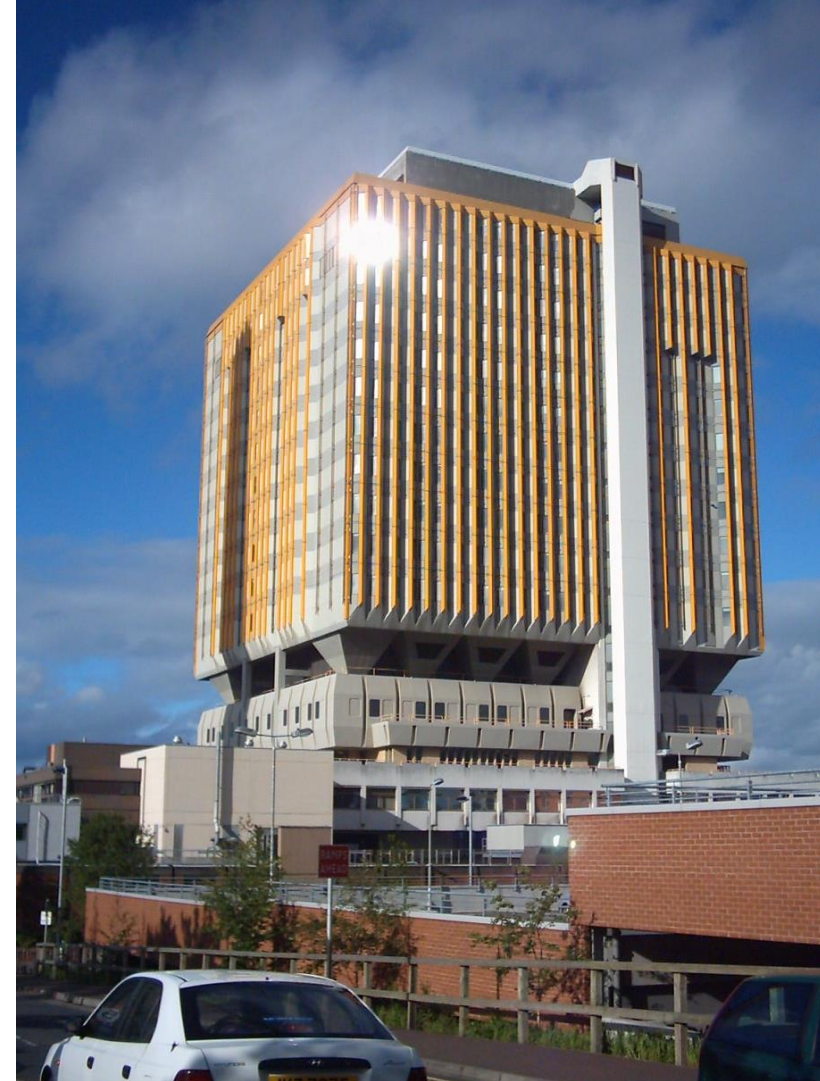
# Another view





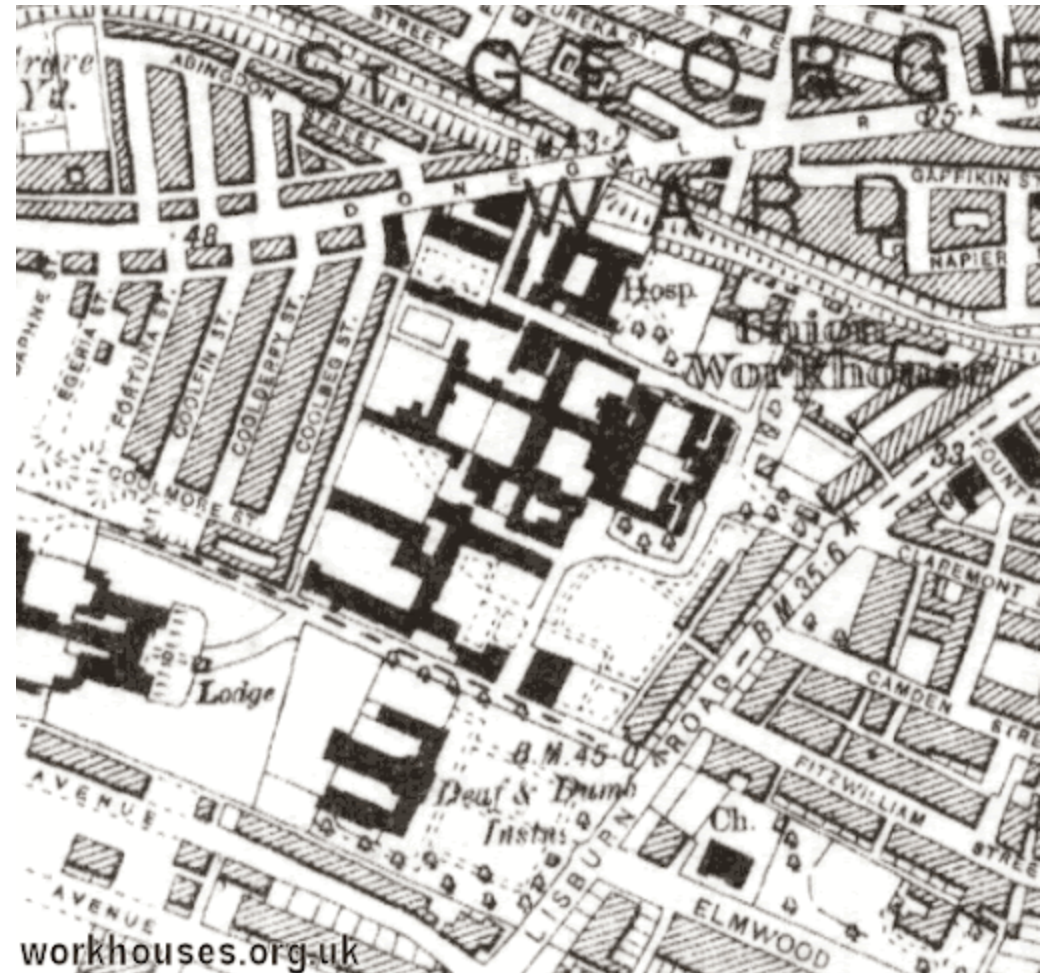
# Belfast City Hospital

- The hospital has its origins in the workhouse and infirmary on the Lisburn Road which was designed by Charles Lanyon and opened on 1 January 1841.
- The infirmary was intended for the poor who did not have access to healthcare services provided by the government.



# City Hospital – development of the Work House infirmary

- As it became difficult to separate the sick from the destitute, the workhouse infirmary developed and soon had over 600 beds.
- The largest number of patients in the Belfast Union Infirmary was recorded as 4,252 on 31 January 1869.



# City Hospital – site of the Fever Hospital

- In January 1847 a new fever hospital with 159 beds was opened by the Board of Guardians on the site.
- In 1849 all fever patients were removed from the wards of the Frederick Street Hospital and transferred to the new fever hospital.
- This decision meant reduced bed numbers in the main Belfast General Hospital but that the amount of surgery now done there increased.
- The fever hospital treated outbreaks of cholera, smallpox, tuberculosis, measles, diphtheria, typhoid, scarlet fever and rabies.
- In addition to the "fever" patients, the infirmary also agreed to take all patients with burns, and those with incurable illnesses to the point where they were as many as 1,338 patients in 1883.





# Isabella "Ella" Barbour Pirrie (1857-1929)

- The number of nurses grew over these years although they were often untrained. In 1867, there were fifteen paid nurses. In November 1884, Miss Ella Pirrie was appointed Superintendent and Head Nurse.
- Born in 1857 in Ulster; father, John Miller Pirrie was a doctor and he was president of the Ulster Medical Society 1858–59.
- She trained at the Liverpool Royal Infirmary and subsequently remained there working alongside Mr Edward Robert Bickersteth.
- November 1884, appointed as Superintendent and Head Nurse at the Belfast Union Workhouse Infirmary on £30 p.a.
- She led the introduction of uniforms for paid nurses, established the first nurse training school in the hospital in 1887, with the first trainees undertaking the three year course in 1888.
- Pirrie resigned in 1892 due to stress, caring for between 800 and 1000 patients.



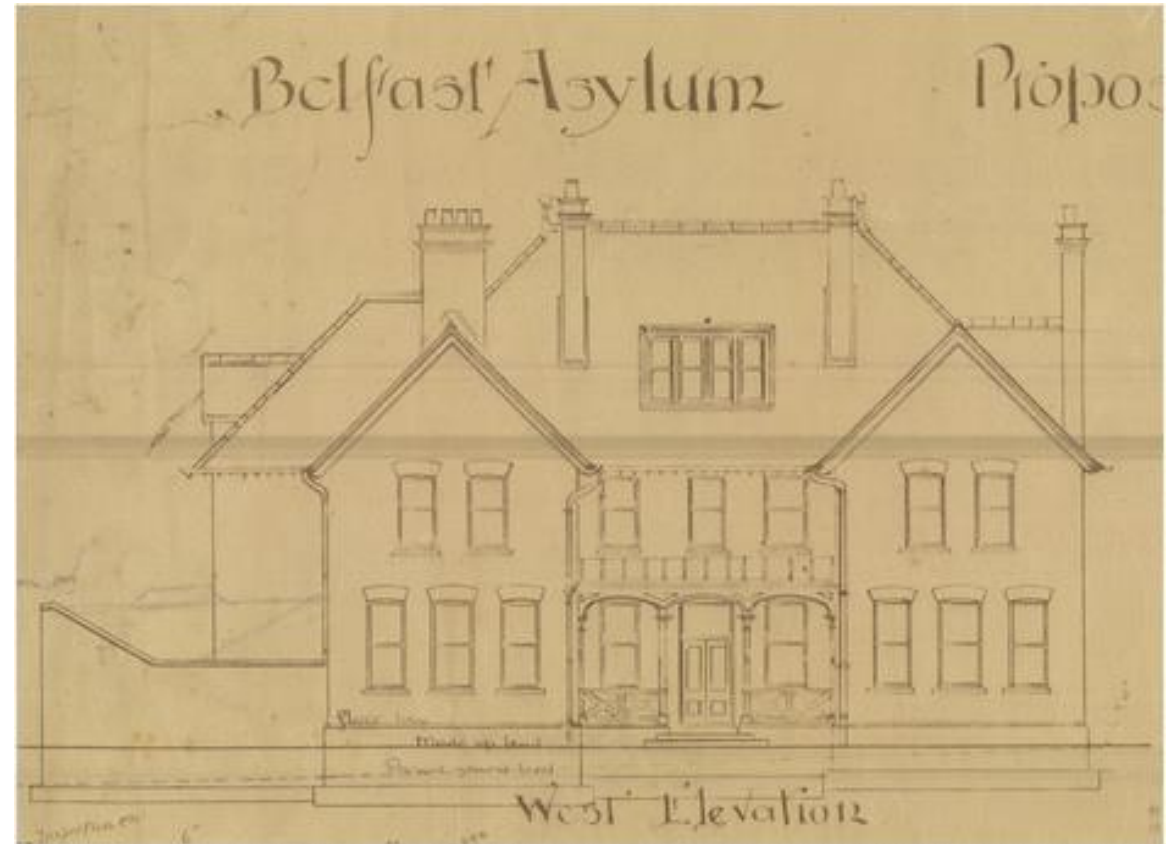
# Shaftesbury Square Hospital, Great Victoria Street

- Located on Great Victoria Street, near Shaftesbury Square, this building was originally constructed as the Belfast Ophthalmic Institution in the 1860s.
- The building was designed in the gothic style by architect William Joseph Barre for Lady Johnson, in memory of her father Mr Thomas Hughes.
- The hospital opened on 1st January 1868.
- After the Second World War, the Institution relocated to the Royal Victoria Hospital and the hospital was administered by the Northern Ireland Hospitals Authority. In 1969, it was renamed 'Shaftesbury Square Hospital'.
- The Belfast Health & Social Care Trust closed the building in 2010 and later sold the building.



# Purdysburn Villa Colony

- The facility was commissioned to replace the old Belfast Asylum on Grosvenor Road.
- Designed by George Thomas Hine and Tulloch and Fitzsimmons with the first four new villas being built on the eastern part of the site in 1906 and a further six villas, together with recreation hall, administration block and churches in 1913.





# Numbers in hospital, 1911

TABLE XII.—Showing the Number of the BLIND, DEAF and DUMB, DUMB not DEAF, IDIOTS, LUNATICS, PAUPERS, the SICK, and PRISONERS in the Counties of the Province of ULSTER, on the Night of the 2nd April, 1911.

Counties, &c.	Population in 1911.	Blind.		Deaf and Dumb.		Dumb not Deaf.		Idiots.		Lunatics.		Paupers.				The Sick.		Prisoners.		
		From Birth.	Others.	From Birth.	Others.	From Birth.	Others.	In Asylums.	Not in Asylums.	In Asylums.	Not in Asylums.	On Outdoor Relief.			At their Homes.	In Hospitals.	In Prisons.	In Bridge Wells and Police Stations.		
												In Workhouses.	At Home.	Children boarded out.					Children in Certified Schools.	
<b>TOTAL</b>	1,581,090	62	1,256	742	250	203	76	252	1,038	6,018*	647	8,883†	5,676	537	17	4,397	5,533	614	41	
ANTRIM COUNTY . . .	193,864	3	158	92	24	26	11	26	126	659*	81	1,160†	1,171	134	.	631	873	.	3	
ARMAGH COUNTY . . .	120,291	2	109	58	18	23	3	19	103	549	88	794	421	81	2	380	410	74	2	
BELFAST Co. BOROUGH	386,947	23	356	204	121	22	19	40	112	771	68	3,207	875	46	11	674	2,199	445	35	
CAVAN COUNTY . . .	91,173	3	70	31	12	10	4	.	65	.	68	455	523	42	.	199	185	.	.	
DONEGAL COUNTY . . .	168,537	5	112	107	16	28	12	29	180	719	92	588	367	37	.	589	265	.	.	
DOWN COUNTY . . .	204,303	3	145	61	23	25	7	48	128	1,103	40	857	1,104	95	.	519	646	.	1	
FERRANAGH COUNTY . . .	61,836	1	47	26	4	20	4	.	59	.	40	272	165	19	.	185	142	.	.	
LONDONBERRY COUNTY AND Co. BOROUGH	140,825	6	92	61	13	18	4	38	81	517	60	651	282	31	.	451	311	95	.	
MONAGHAN COUNTY . . .	71,455	3	63	43	7	8	7	25	78	900	62	461	187	13	4	278	200	.	.	
TYRONE COUNTY . . .	142,665	3	114	59	12	23	4	39	106	820	48	738	551	40	.	481	362	.	.	

NOTE.—The Ages and Sexes of the Blind, Deaf and Dumb, Dumb not Deaf, Idiots, Lunatics, Paupers, Sick, and Prisoners, included in this Table, will be found in Table XXVIII.

\* Including 82 Lunatics in Ballymena Workhouse (see note (d), Table XI.)

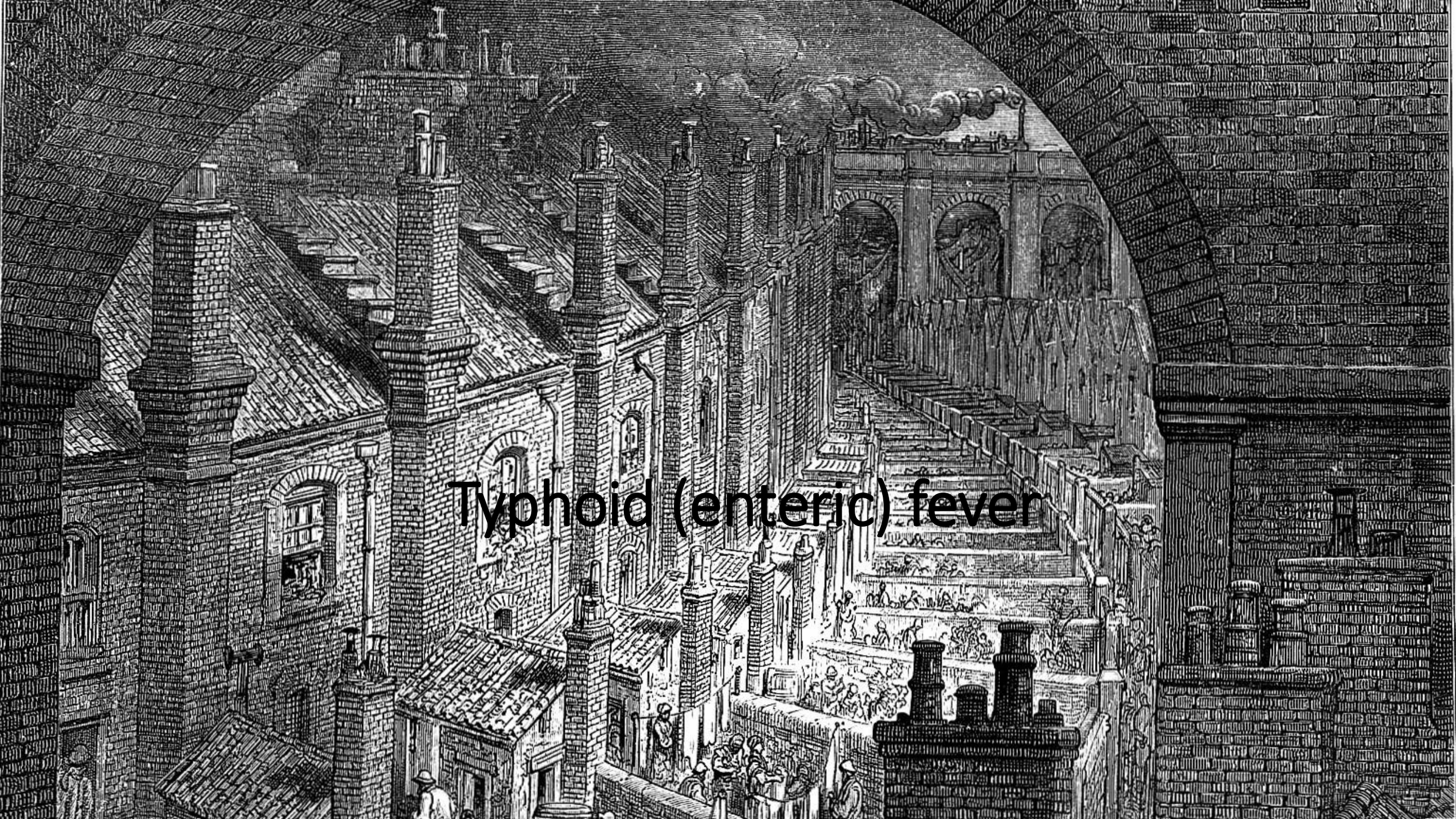
† Excluding 82 Lunatics in Ballymena Workhouse (see note (d), Table XI.)





# Public health problems in Belfast





Typhoid (enteric) fever



# What is typhoid fever?

- Typhoid fever, also known as typhoid, is a disease caused by *Salmonella* serotype Typhi bacteria.
- It is also known as enteric fever.
- Symptoms may vary from mild to severe and usually begin six to 30 days after exposure.
- Often there is a gradual onset of a high fever over several days. This is commonly accompanied by weakness, abdominal pain, constipation, headaches, and mild vomiting.
- Some people develop a skin rash with rose colored spots.

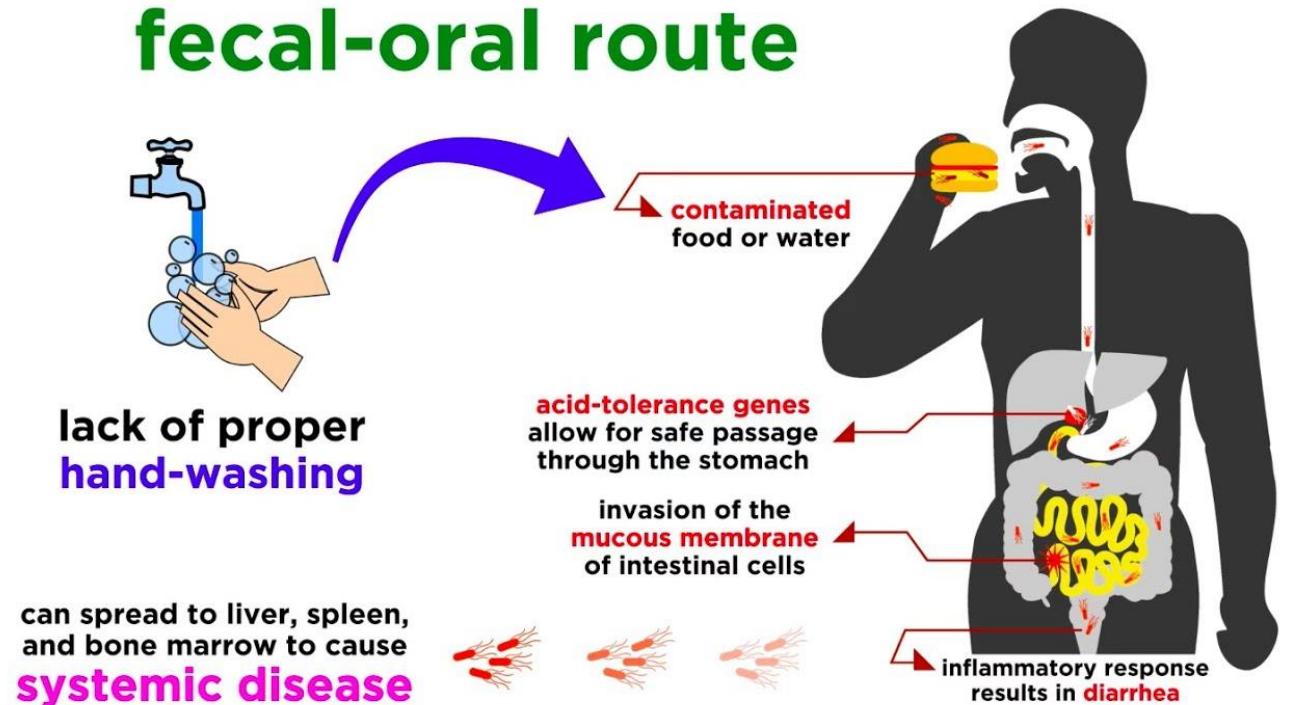


TABLE I.—SHOWING, FOR THE DECENNIA 1881-90 AND 1891-1900, AND FOR THE FIVE YEARS 1901-5, MEAN ANNUAL DEATH-RATES PER 1,000 LIVING FROM ENTERIC AND SIMPLE CONTINUED FEVERS IN BELFAST, DUBLIN AND CORK, AND FROM "FEVER" (INCLUDING TYPHUS) IN CERTAIN OTHER TOWNS.

	1881-90	1891-1900	1901-05
<i>Belfast</i> ... ..	·51	·86	·57
Dublin ... ..	·50	·48	·25
Cork ... ..	·27	·19	·09
Liverpool ... ..	·50	·33	·21
Manchester ... ..	·28	·22	·13
Leeds ... ..	·33	·20	·14
Sheffield ... ..	·24	·29	·15
Bristol ... ..	·17	·11	·09
Birmingham ... ..	·16	·20	·14
Glasgow (City) ... ..	·27	·22	·15
Grimsby ... ..	·25	·42	·35
Rhondda ... ..	·49	·39	·30
Great Yarmouth ... ..	·44	·41	·14
St. Helen's ... ..	·45	·45	·20
Salford ... ..	·42	·37	·25
Preston ... ..	·49	·33	·23
Sunderland ... ..	·35	·53	·22
Middlesbrough ... ..	·40	·38	·24
Nottingham ... ..	·34	·29	·20
Portsmouth ... ..	·52	·27	·18

TABLE II.—SHOWING THE ANNUAL NUMBER OF DEATHS REGISTERED, WITH DEATH-RATES PER 1,000 LIVING, FROM ENTERIC FEVER AND FROM SIMPLE CONTINUED FEVER IN THE BELFAST REGISTRATION DISTRICT AND IN THE CITY OF BELFAST.

	REGISTRATION DISTRICT				CITY			
	Deaths		Death-rate		Deaths		Death-rate	
1872	164	...	·79	...	—	...	—	...
1873	146	...	·69	...	—	...	—	...
1874	146	...	·68	...	—	...	—	...
1875	126	...	·58	...	—	...	—	...
1876	122	...	·55	...	—	...	—	...
1877	137	...	·61	...	—	...	—	...
1878	145	...	·63	...	—	...	—	...
1879	144	...	·62	...	—	...	—	...
1880	166	...	·70	...	—	...	—	...
1881	111	...	·46	...	94	...	·45	...
1882	124	...	·51	...	82	...	·38	...
1883	93	...	·37	...	81	...	·37	...
1884	71	...	·28	...	63	...	·28	...
1885	72	...	·28	...	75	...	·33	...
1886	117	...	·44	...	121	...	·52	...
1887	106	...	·39	...	115	...	·49	...
1888	109	...	·40	...	111	...	·46	...
1889	245	...	·87	...	241	...	·98	...
1890	193	...	·67	...	193	...	·77	...
1891	158	...	·54	...	160	...	·62	...
1892	119	...	·40	...	134	...	·51	...
1893	133	...	·43	...	132	...	·49	...
1894	169	...	·54	...	166	...	·60	...
1895	199	...	·62	...	213	...	·74	...
1896	164	...	·50	...	155	...	·53	...
1897	402	...	1·19	...	370	...	1·23	...
1898	664	...	1·93	...	662	...	2·03	...
1899	286	...	·81	...	273	...	·82	...
1900	278	...	·77	...	269	...	·78	...
1901	372	...	1·00	...	367	...	1·04	...
1902	176	...	·46	...	181	...	·50	...
1903	151	...	·39	...	154	...	·42	...
1904	122	...	·31	...	119	...	·32	...
1905	141	...	·35	...	134	...	·35	...
1906	104	...	·25	...	99	...	·25	...
1907	—	...	—	...	84	...	·22	...
1908	—	...	—	...	59	...	·15	...



TABLE IV.—SHOWING THE NUMBER OF NOTIFICATIONS OF ENTERIC FEVER AND OF SIMPLE CONTINUED FEVER RECEIVED IN EACH OF THE YEARS 1897-1906 FROM EACH REGISTRATION DISTRICT IN BELFAST, TOGETHER WITH THE POPULATION OF EACH DISTRICT AT THE 1901 CENSUS, EXCLUSIVE OF CERTAIN INSTITUTIONS.

	Population, 1901	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	Enteric fever	Simple continued fever	Total
1	14,734	299	334	197	200	276	116	100	62	81	50	662	1,053	1,715
2	46,743 <sup>1</sup>	534	595	297	415	636	214	176	147	202	104	1,882	1,438	3,320
3	47,214	540	772	269	491	637	215	196	129	212	175	2,739	897	3,636
4	37,386 <sup>2</sup>	425	1,031	272	238	336	257	161	109	165	147	2,219	922	3,141
5	17,387	172	312	116	100	226	83	67	48	40	36	967	233	1,200
6	48,122	351	754	358	257	389	217	189	202	126	105	1,924	1,024	2,948
7	1,524	4	16	10	13	24	10	6	5	10	7	61	44	105
8	5,060	7	80	39	13	36	17	7	5	13	3	208	12	220
9	18,823 <sup>3</sup>	153	357	145	111	129	63	47	38	40	34	978	139	1,117
10	23,064	312	612	186	270	458	126	107	73	140	84	2,087	331	2,368
11	34,802	338	585	146	168	184	148	114	66	47	58	1,554	300	1,854
12	33,588	464	826	200	240	461	234	218	110	85	96	2,150	784	2,934
13	15,006	9	168	55	70	88	74	44	24	39	18	477	111	588
14	240	—	—	—	1	4	—	—	—	—	—	4	1	5
Total	343,693 <sup>1 2 3</sup>	3,607	6,442	2,290	2,587	3,884	1,774	1,432	1,018	1,200	917	17,862	7,289	25,151

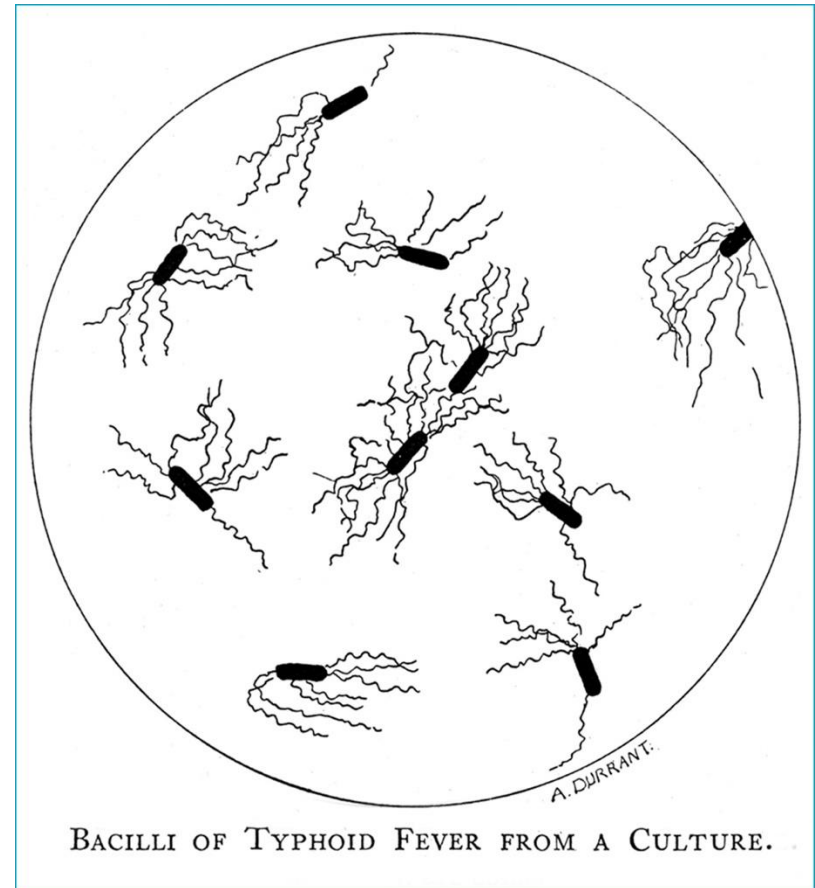
<sup>1</sup> Exclusive of barracks, 1,216.

<sup>2</sup> Exclusive of workhouse, 3,525.

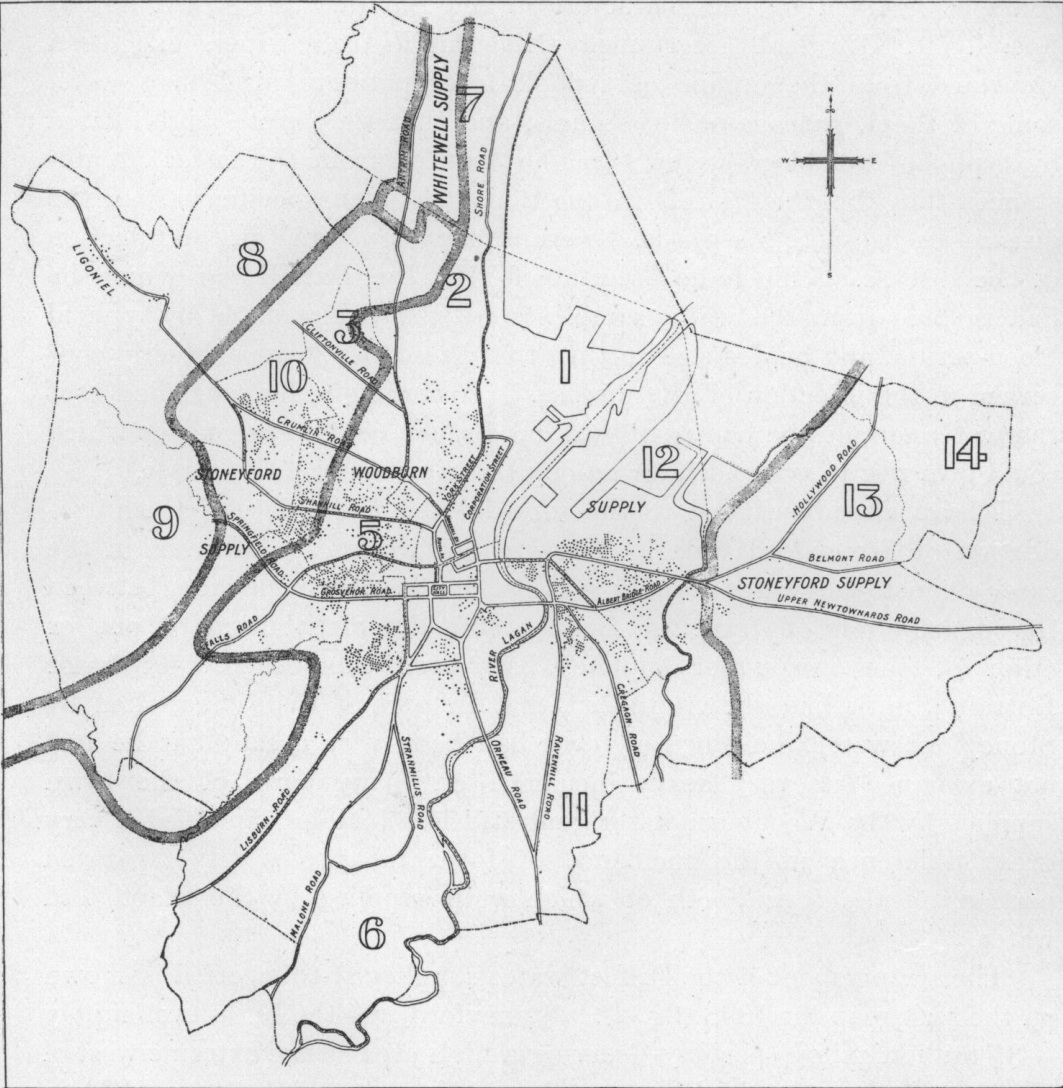
<sup>3</sup> Exclusive of asylum, 746.

# Why did Belfast have a high rate of enteric fever?

- In the 1908 Dr Darra Mair published 'The AEtiology of Enteric Fever in Belfast in relation to Water Supply, Sanitary Circumstances, and Shellfish'.
- He said there were two arguments for Belfast's high rate of enteric fever:
  - Water Commissioners argued it was due to the insanitary nature of the city
  - Belfast Corporation said it was due to the contamination of the water supply.



# Belfast waster supply





# Incidence of fever and class of citizen

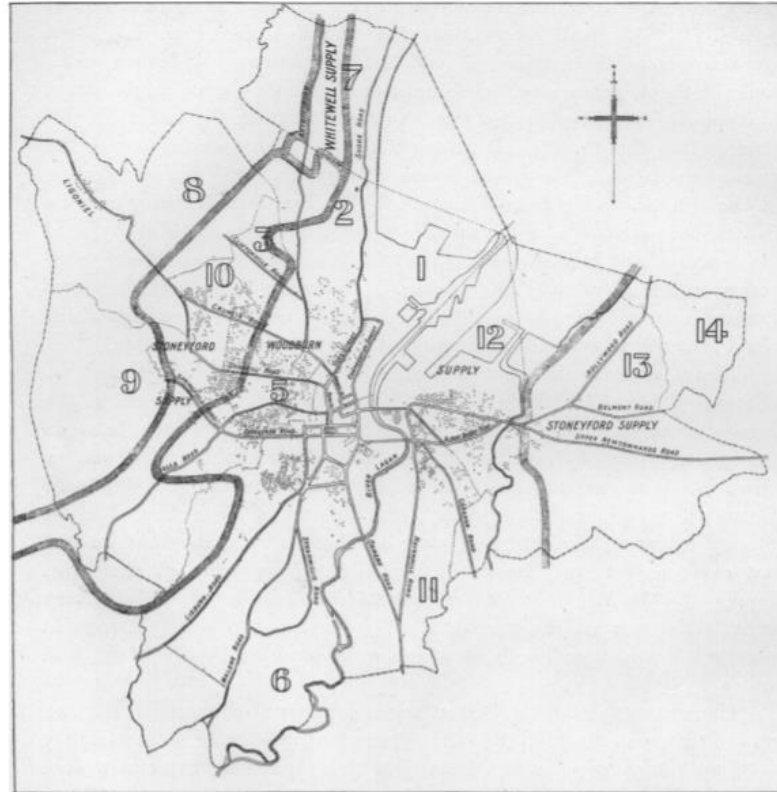


FIG. 2.

Map showing the distribution of enteric fever notified in Belfast during July, August, and September, 1898, the areas of the city then supplied with water from Woodburn and from Stoneyford (area of Whitewell supply also shown), and the boundaries of the dispensary or registration districts of the city. The spots indicate the approximate situations of houses in which enteric fever occurred. The boundaries of the areas of water supply are indicated by broad black lines and of the registration districts by thin dotted lines.



FIG. 7.

Map showing the distribution of the population in Belfast. The dark shading indicates those portions of the city which are inhabited by the working classes, and the light shading indicates the other inhabited portions of the city.

# What is a privy midden?

- The privy midden (also midden closet) was a toilet system that consisted of a privy (outhouse) associated with a midden (or middenstead, ie a dump for waste). They were widely used in rapidly expanding industrial cities, but were difficult to empty and clean.
- A typical comment was that they were of "most objectionable construction" and "usually wet and very foul"



Believed to be Back Front Street, Boldon Colliery. Prior to the 1930s a great many houses did not have flush toilets, only a seat over a dry hole, into which you relieved yourself, then scattered dry ash over. The Corporation cart would come around the back lanes at night to empty the middens via the low hatch door and scatter lime inside. The midden may have been used by more than one family, depending on who shared the backyard.

# Belfast's insanitary conditions

On the other hand, Belfast until recently was largely a privy-midden town. Another objectionable feature is that portions of the town are built on ground filled up with ashpit refuse. Those who urged that fever in Belfast could be accounted for by insanitary circumstances relied mainly on the evil effects likely to accrue from the conditions named, and they pointed, in confirmation of this proposition, to the fact that the great decline of fever since 1901 had coincided practically with the conversion of privies into water-closets.



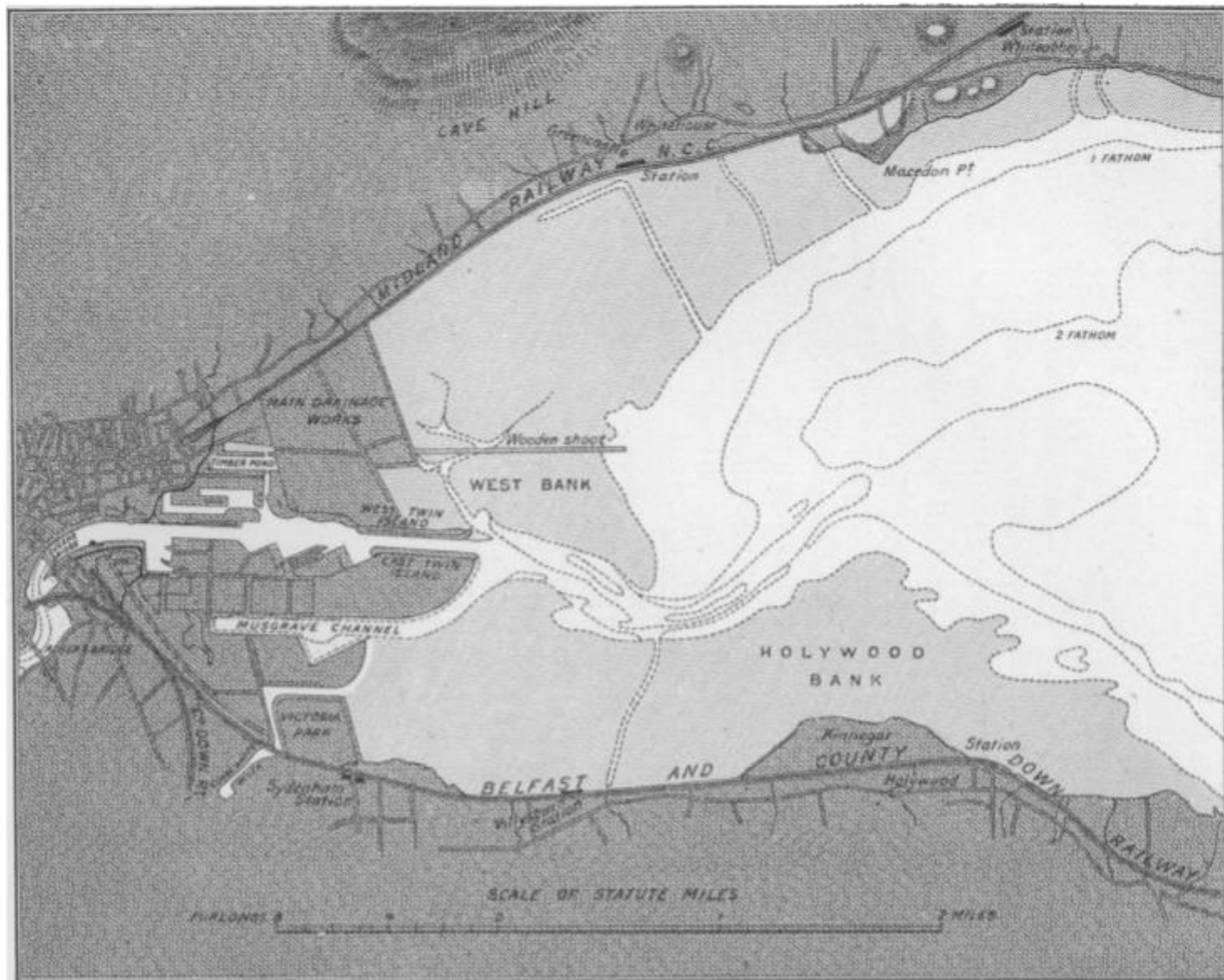
# Privy middens to water closets

In 1897, the first year of the critical period of fever, 40 per cent. of Belfast houses had privy-middens. In 1899 powers were obtained in a local Act for requiring the conversion of privies into water-closets, and these powers were enforced with such rapidity that by 1902 only 12 per cent. of Belfast houses had privy-middens, and at the present time the conversion into water-closets is almost complete. Clearly, therefore, there has been a coincidence, in point of time, between the decline of fever and the conversion of privies.

# The other cause of fever: shell fish consumption by the working classes

- Sewerage from Belfast emptied into the Lagan and Belfast Lough.
- Sewage contaminated shell fish harvested for consumption.
- Shellfish was popular with the working classes as a cheap source of food.
- 'Hawkers' would distribute shellfish to 400 people daily.
- Enteric fever declined once the link was established and public health measures were taken.







# The legacy today of the enteric fever outbreak...





# Tuberculosis





# What is Tuberculosis

- Tuberculosis (TB) is caused by a bacterium called Mycobacterium tuberculosis. The bacteria usually attack the lungs, but TB bacteria can attack any part of the body such as the kidney, spine, and brain. Not everyone infected with TB bacteria becomes sick.
- TB bacteria are spread through the air from one person to another. The TB bacteria are put into the air when a person with TB disease of the lungs or throat coughs, speaks, or sings. People nearby may breathe in these bacteria and become infected.
- Known as 'consumption' and many opera heroines died of it.

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# HOW THE GERMS OF TUBERCULOSIS ARE CARRIED FROM THE SICK TO THE WELL



Consumptive spilling on floor. Flies feeding on it, carry the germs of the disease to food.



The germs frequently enter the bodies of children playing on the floor, through sores or wounds, or are carried by the hands to the mouth.



Tuberculosis germs deposited on common roller towels and drinking cups, spread the disease.

Spit on the floor dries, and careless sweeping, dusting or draughts cause well people to breathe in these germs.



Others may get the disease by breathing or swallowing the germs. Spray given off in sneezing or coughing, contain germs in a moist and active state.



Putting food, money, pencils and other objects into the mouth, after a consumptive has poisoned them with his spit, spreads the disease.



Kissing frequently spreads the germs of tuberculosis from the lips of the sick to the well.

# Disease rates, 1840s

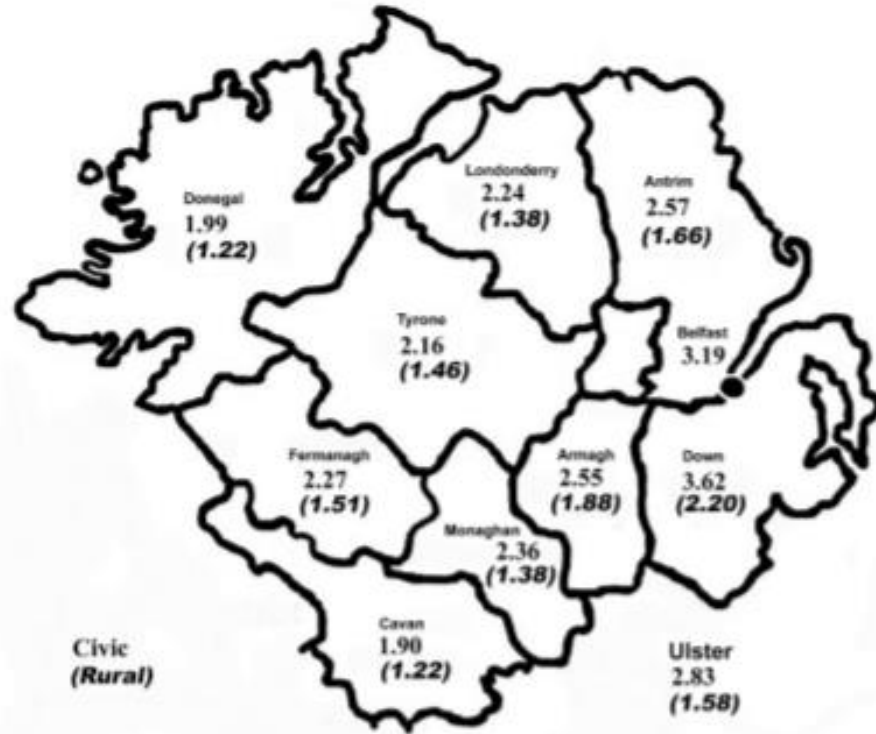


Figure 3. Average annual death rates between 1841 and 1851 from consumption per 1,000 population in civic and rural districts of Ulster.

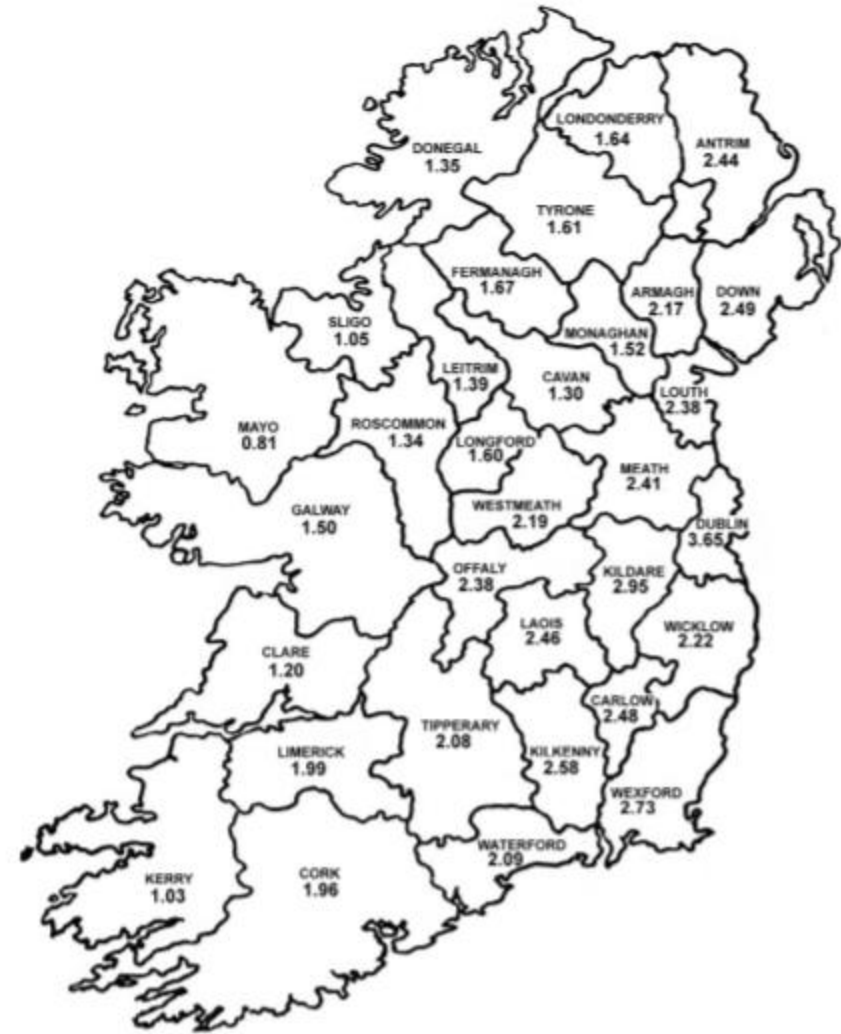


Figure 4. Average annual death rates between 1841 and 1851 from consumption per 1,000 population in the counties of Ireland.

Male and Female death rate from TB (all forms) per 100,000 persons  
in the four provinces of Ireland averaged for the decades  
1861-70, 1871-1881 and for the year 1911.

	1861-71		1871-1881		1911	
	M.	F.	M.	F.	M.	F.
Leinster	304	292(1)	294	279(1)	268	253(1)
Munster	172.7	165(2)	223	215(3)	213	210(3)
Connaught	131	137(4)	260	242(4)	157	157(4)
Ulster	227	249(3)	274	301(2)	201	232(2)



# TB in Belfast

- In the early 1900s an epidemic of the disease led to 13,000 deaths in Ireland.
- Rates of TB were particularly high in the linen mills of Belfast. The preparation of flax for making linen created a lot of dust (or pouce), workers in the mills were exposed to the dust that irritated and dried their throats and attacked their lungs.
- The condition known as poucey is now thought to be an early symptom of tuberculosis. Workers involved in the preparation of flax, such as roughers, carders and sorters, had a very short lifespan.

Deaths from phthisis per 100,000 for Belfast and Manchester for 1900, 1901 and 1902

Belfast		Manchester	
Male	Female	Male	Female
293	338	268	162

*Source: Belfast Health Commission 1908. Calculated from Table XIX, 33.*

# Action

- 1880: Hospital for Consumption and Diseases of the Chest opened.
- 1899: TB patients segregated in hospitals.
- 1908: Tuberculosis Prevention (Ireland) Act gave power to county councils to provide clinics for the treatment of the disease - which was regarded at the time as the deadliest diseases in Ireland.
- 1913: Corporation purchased the Whiteabbey Sanatorium.

2.9

**Tuberculosis Prevention (Ireland)**  
**Act, 1908.** *Tracts B. 266.*  
[8 EDW. 7. CH. 56.]

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# Cholera



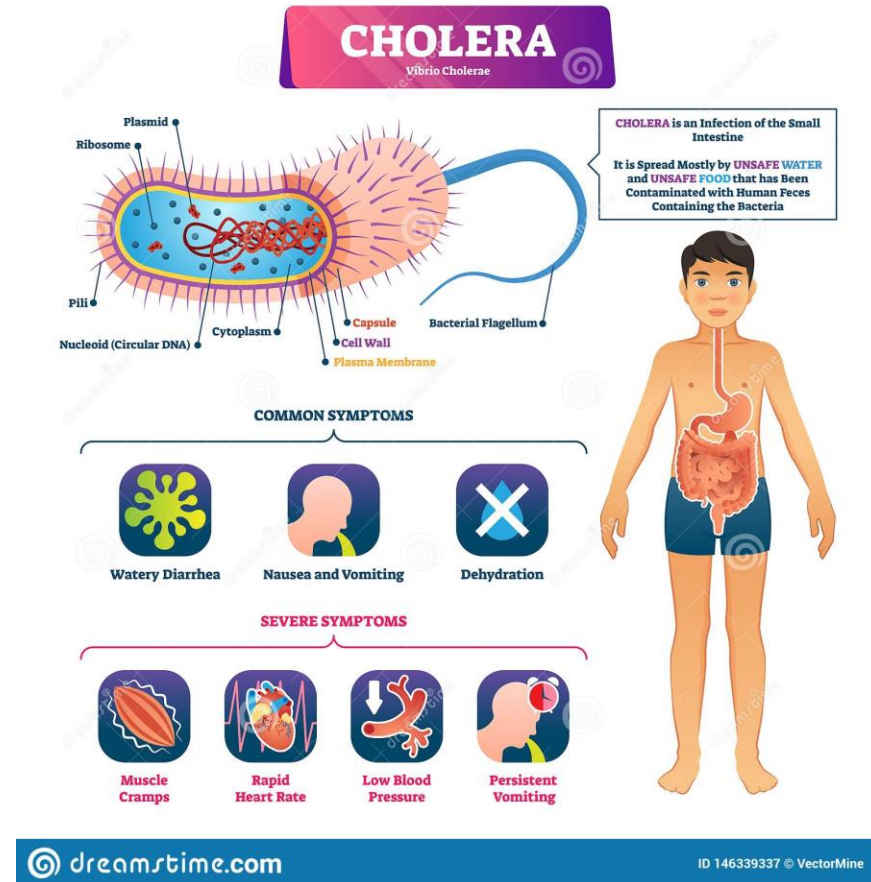


# What is cholera?

- Cholera is an acute diarrhoeal infection caused by ingestion of food or water contaminated with the bacterium *Vibrio cholerae*.
- Symptoms of cholera were severe dehydration and diarrhoea, vomiting, rapid heartbeat and fatigue.
- Most of those infected will have no or mild symptoms and can be successfully treated with oral rehydration solution.
- Severe cases will need rapid treatment with intravenous fluids and antibiotics.
- Provision of safe water and sanitation is critical to prevent and control the transmission of cholera and other waterborne diseases.



# Symptoms





# 1832 outbreak

- Reports received that the 'Asiatic' disease had reached Russia.
- Fear of the disease had led to preparations; board of health established with powers to cleanse houses and a 'fever' hospital established at the General Hospital.
- February 1832, first case, linked to traveller from Scotland.
- 60% of cases treated at home and could not be persuaded to go to hospital.
- the mortality rate for patients at Belfast cholera hospital (24%) was much higher than for those who stayed at home (8%).
- The outbreak had lasted 46 weeks with 2,833 cases recorded, resulting in 418 deaths.





# Precautions taken by the Corporation

Cholera Poster, Belfast, 1832. Royal  
College of Physicians of Ireland,  
BMS19.

## Board of Health, BELFAST. *Epidemic Cholera.*

IN the end of October, 1831, Cholera appeared in Sunderland. Upon the 17th December, it reached Haddington, in Scotland, and at this date, has appeared both in Glasgow and Paisley. Between these places and Belfast the intercourse is so constant, that we have reason to expect, that within a short period it may reach us, in spite of every precaution. THE BOARD OF HEALTH therefore deem it necessary to address their fellow-townsmen, for the purpose of stating what has been done, what they purpose to do, and what they would advise, with a view either to avert or mitigate the disease.

1. The Town has for several years been divided into six Dispensary Districts, with two Medical Gentlemen to each; but should Cholera appear, there will be an immediate increase of medical appointments, according to the exigency of the case.

2. Each District is placed under the superintendance of Two Members of the Board, each District is again sub-divided, and each Division is placed under Visitors resident in the neighbourhood.

3. The Visitors are engaged in the examination of the Streets, Lanes, Courts, Yards, and Houses; and are endeavouring by

means of the active and zealous co-operation of the Commissioners and Committee of Police to promote the cleanliness of the Town.

4. The Superintendants and Visitors will, wherever necessary, have the houses of the Poor whitewashed, and will furnish a supply of fresh straw for their beds; and be ready to attend to any other matters of precaution or relief, that circumstances may demand.

5. The Quarantine Laws, according to directions received from Government, will be strictly enforced upon all vessels from infected ports.

THE BOARD OF HEALTH beg leave to address to the Public the following suggestions, which, they believe, may, under Divine Providence, contribute to the protection of society in general, and particularly of the poor, who, from a variety of circumstances, may be chiefly exposed to contagion:—

1. Do every thing in your power to maintain cleanliness of person and clothes.

2. To guard against sudden changes of temperature, wear a flannel shirt next the skin, or at least a belt eighteen inches broad round the bowels.

3. As much as possible avoid getting the feet wet, or sitting in wet clothes.

4. Avoid unnecessary and fatiguing journeys.

5. Avoid late hours, and all parties in small close rooms. The ordinary practice of sitting all night at Wakes, is most particularly dangerous.

6. After rising in the morning, let all bed clothes be hung up on a rail or line.

7. Sweep frequently under beds.

8. Keep windows open during the day, whenever the weather is dry. Wherever it can be done, raise one sash, and draw down the other a few inches. Particularly keep open the upper windows of stair-cases, lobbies, &c.

9. Remove from yards, or near the doors, all gatherings of sweepings, dung, &c. causing offensive smells, and drain off all stagnant water.

10. Damp earthen floors being exceedingly prejudicial to health, do all that can be done by drains, or otherwise, to keep them dry.

11. Wash boarded floors frequently, and dry them well, by ventilation and fires.

12. Let SERVANTS and all others keep as much as possible at home, and avoid visiting sick persons, unless where absolute duty requires.

13. As it is not improbable that Dogs, by frequenting infected houses, are often the means of conveying infection to other places, let them be tied up.

14. *Be Temperate.* If Ardent Spirit be used, let it only be in moderate quantity after dinner, and largely diluted with water. Of the tendency of intemperance to produce Cholera, we have a striking example, by which it appears that in consequence of drinking on Christmas-day, (25th December last,) thirty-nine persons were seized with Cholera at Gateshead, upon the 26th; and fifty-nine, upon the 27th; of whom ten died on the 26th, thirty-two on the 27th, and thirteen on the 28th December; whereas the greatest number of deaths upon any other day was only nine, and the ordinary average five. Persons whose business calls them to fairs and markets, are often accustomed to drink spirits after their journey, and in the evening when fatigued with business and weakened by long fasting, a practice at all times injurious to health, and peculiarly calculated to prepare the way for the attack of CHOLERA.

15. A mind at peace is always the best preservative of health. Therefore let all ranks, trusting in the grace of our Lord and Saviour, turn to God with all their hearts. It may be, that, listening to prayer, God will defend us from this scourge; or should he send it amongst us, the visitation will be converted to good.

(Signed by order of the Board,)

Belfast, 18th Feb. 1832.

**CHARLES TREVOR,**  
SECRETARY.

# 1848/9 outbreak

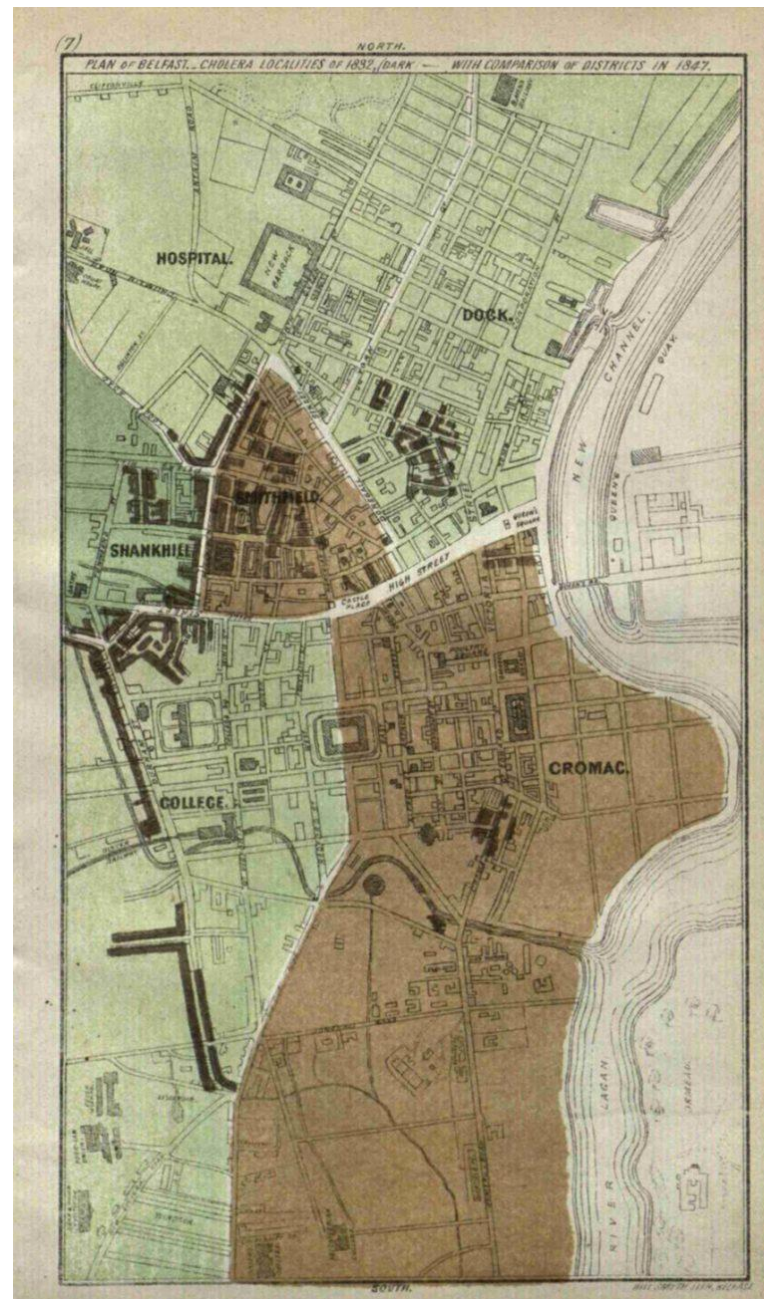
- Belfast had the first recorded case of cholera in Ireland and also the first fatality.
- The outbreak in the town began in November 1848, extending with increasing severity to October 1849 when the epidemic had largely run its course.
- The final cholera report for the Belfast Union to 4th October 1849 stated, of 3,524 cholera cases 1,156 (33%) had died.





# 1832 vs 1848/9 outbreaks

Dark brown is where the disease was most prominent in 1832 vs the green which shows the spread in 1848/9.





# The first cases

- 1st case: reported at at the Belfast Lunatic Asylum (Falls Road).
- 2nd case: reported case was in the 'Belfast Union Workhouse' on 12th December 1848. This was an Irish pauper named Tiernan who arrived in Belfast from Glasgow. Before arrival he had been living in a house in Edinburgh where two cases of cholera had occurred. At his request the authorities transferred him to Belfast where he died.

**NOTICE.**

---

**PREVENTIVES OF**

**CHOLERA!**

Published by order of the Sanatory Committee, under the sanction of the Medical Counsel.

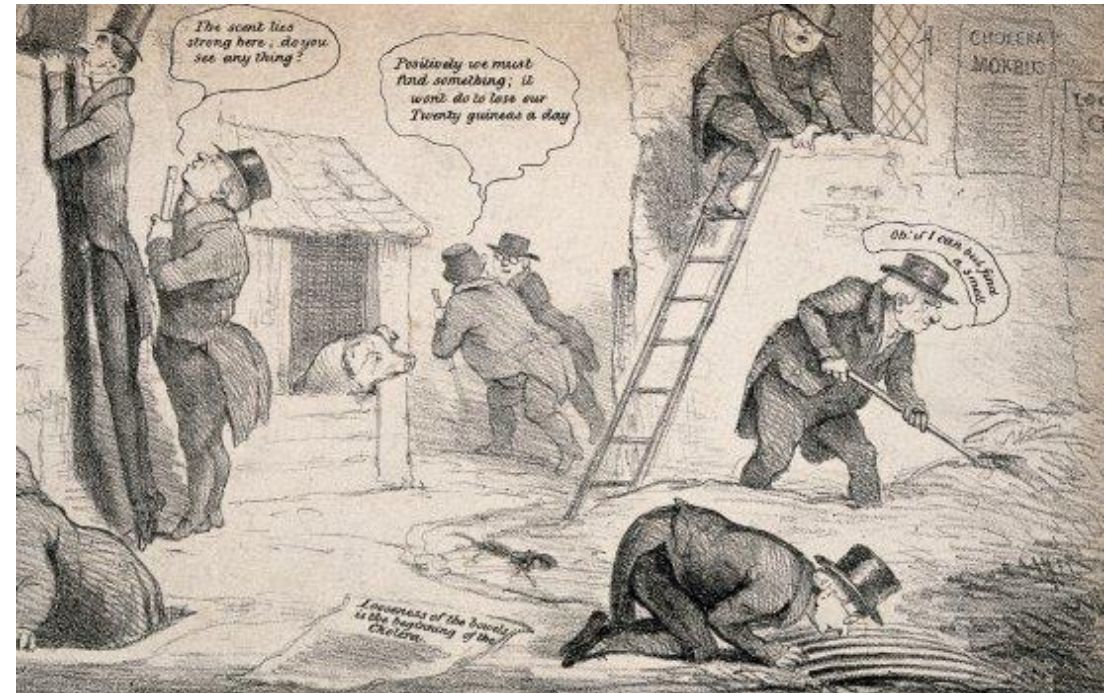
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**BE TEMPERATE IN EATING & DRINKING!**  
*Avoid Raw Vegetables and Unripe Fruit !.*

**Abstain from COLD WATER, when heated, and above all from *Ardent Spirits*, and if habit have rendered them indispensable, take much less than usual.**

# Action by the authorities

- Public awareness campaign that emphasised personal cleanliness and hygiene, improving public sanitation and expanding medical provision and facilities.
- Jan 1849, Belfast Bd of Guardians:
  - General hospital prepared.
  - Acquired additional accommodation to house paupers at the Francis Street Mill.
  - Plans were also made with the trustees of the Magdalene Asylum (Donegall Pass) for the use if needed
- Belfast Sanitary Committee carried out proactive inspection of housing, alleys, lanes and courts making recommendations for sanitary improvements and cleansing.
  - 195 poor houses were cleansed and whitewashed,
  - 266 'wretched families' were supplied with dry fresh straw bedding





# Impact of measures

- The authorities believed their measures had succeeded in reducing the spread of the disease and prevented a much higher death toll. Other locations in Ireland such as Dublin and Cork had significantly higher mortality levels.
- The Sanitary Committee on 1st October 1849 was addressed by Dr A Malcolm. He stated that outbreak had taught the city the “to appreciate and realise in this locality, the saving principles of sanitary reform.”



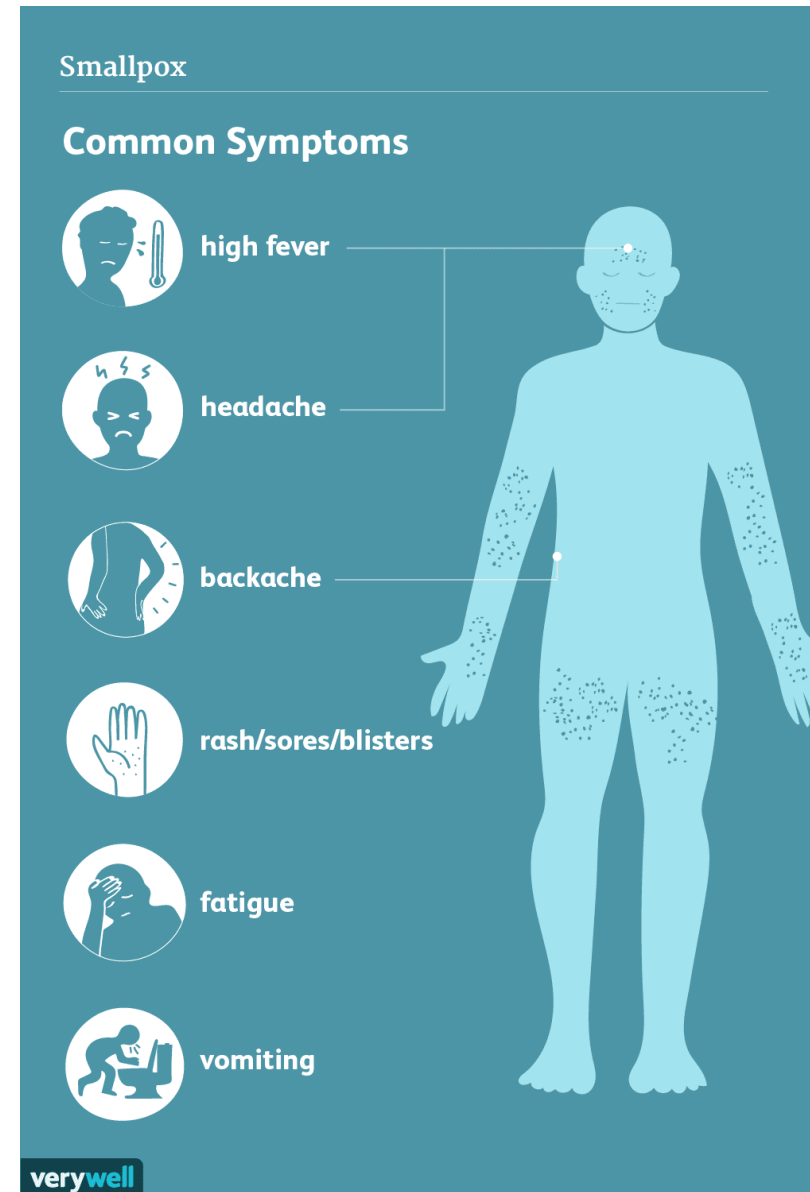


# Small Pox



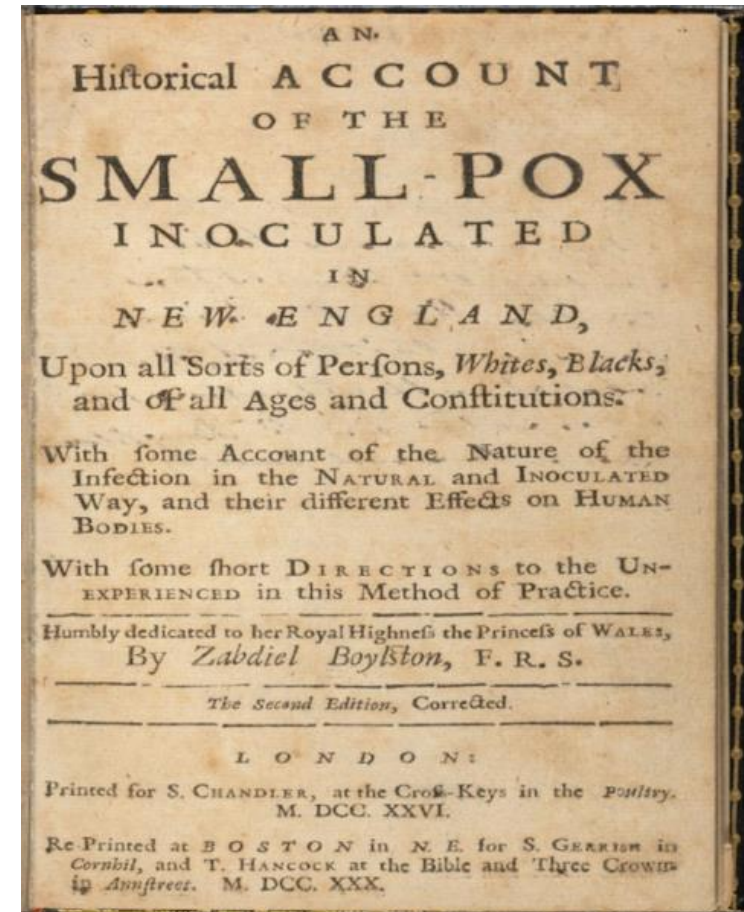
# What is Smallpox?

- Smallpox is an infectious disease caused by the variola virus.
- It is characterized by fever, a general feeling of ill health (malaise), headaches and back pain.
- These initial symptoms are followed by a rash and small, raised bumps or lesions (pocks) within two or three days.
- Smallpox was a highly contagious disease, but was declared eradicated in 1980
- There were two strains of smallpox, variola major and variola minor.



# Mortality

- It spread rapidly and killed around 30% of those who contracted it and left many survivors blinded or scarred.
- In the 1850s smallpox was killing about 1,500 people in Ireland every year
- 1867: this was down to just 20 deaths
- 1890s the Irish health authorities claimed that Ireland had 'totally immunity' to smallpox.





# Statutory actions

- In 1798, the first smallpox vaccine was developed.
- 1863 law making vaccination of infants against smallpox compulsory (Ireland).
- Vaccinations administered via the Poor Law Unions and Dispensaries

This Paper must be sent entire by the Medical Officer or Practitioner to the Registrar.

**THE VACCINATION (IRELAND) ACTS, 1863 & 1879.**

**Notice of the Requirement of Vaccination.**

To the Father, or Mother, or other Person having the Custody of the Child herein named.

Union of \_\_\_\_\_

No. 267 in the Register of Births.

SCHEDULE C.—Notice requiring Child to be Vaccinated.

\* Insert Child's Name and Surname. I, the undersigned, hereby give you Notice, and require you to have \_\_\_\_\_ Vaccinated within **Three Months** after the Birth, pursuant to the provisions and directions of the Act of the 26th and 27th Victoria, Cap. 52, and 42nd and 43rd Victoria, Cap. 70.

As witness my hand, this 21 day of 10 1907

Signature, J. Falcon

Registrar of Births and Deaths for the \_\_\_\_\_ District.

# Penalties for non-vaccination

- Jack Craig was born on the Shankill Road in Belfast in 1901, the final year of Queen Victoria's reign.
- In the weeks following his birth, Jack's parents received an official notice requiring their son to be vaccinated against smallpox.
- If little Jack's parents didn't take him to the vaccination station in Tennent Street they would be fined £1, a hefty amount for working people.





# Small pox vaccination register

Page 3

County of Wick Union of Wick District of Randalstown

**Register of Cases of Successful Vaccination.**

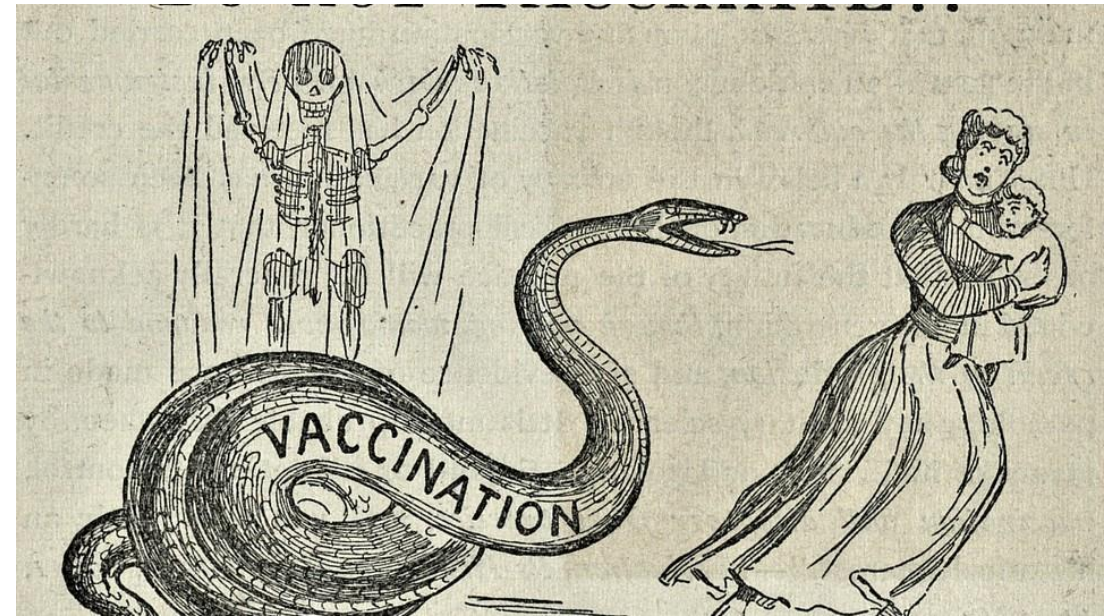
No.	Name of Child successfully Vaccinated.	Age at time of Vaccination.	By whom Vaccinated.	Date of Certificate of Successful Vaccination.	Residence at time of Vaccination.	Name and Residence of Father, Mother, or Person in charge of Child.	Number of Entry of Child's Birth in the Register of Births.	Signature of Registrar and Date of Entry.
21	Edward M. Connick	6 months	James M. Kee	16 <sup>th</sup> September 1864	Shanescastle	Edward M. Connick Shanescastle	21	James M. Kee 16 <sup>th</sup> September 1864
22	Robert M. Quilty	5 months	James M. Kee	25 <sup>th</sup> September 1864	Randalstown	James M. Quilty Randalstown	49	James M. Kee 23 <sup>rd</sup> September 1864
23	Mary Jane O'Brien	3 months	James M. Kee	23 <sup>rd</sup> September 1864	Randalstown	William. H. O'Brien Randalstown	98	James M. Kee 23 <sup>rd</sup> September 1864
24	James M. Keown	6 months	James M. Kee	23 <sup>rd</sup> September 1864	Greennaw	Henry M. Keown Greennaw	28	James M. Kee 23 <sup>rd</sup> September 1864
25	Margaret O'Neill	6 months	James M. Kee	23 <sup>rd</sup> September 1864	Moneyrick	Harriet O'Neill Moneyrick	6	James M. Kee 23 <sup>rd</sup> September 1864
26	Ann M. Mullin	4 months	James M. Kee	23 <sup>rd</sup> September 1864	Craigmore	Elizabeth M. Mullin Craigmore	78	James M. Kee 23 <sup>rd</sup> September 1864
27	Robert Ruck	6 months	James M. Kee	30 <sup>th</sup> September 1864	Magherabey	Robert Ruck Magherabey	Without register by magherabey	James M. Kee 30 <sup>th</sup> September 1864
28	Elizabeth Cosmor	5 months	James M. Kee	30 <sup>th</sup> September 1864	Ballyproby	John Cosmor Ballyproby	68	James M. Kee 30 <sup>th</sup> September 1864
29	Maude Kennedy	5 months	James M. Kee	30 <sup>th</sup> September 1864	Magheracagh	James Kennedy Magheracagh	67	James M. Kee 30 <sup>th</sup> September 1864
30	Sarah Connolly	4 months	James M. Kee	30 <sup>th</sup> September 1864	Cranfield	James Connolly Cranfield	76	James M. Kee 30 <sup>th</sup> September 1864

A 2



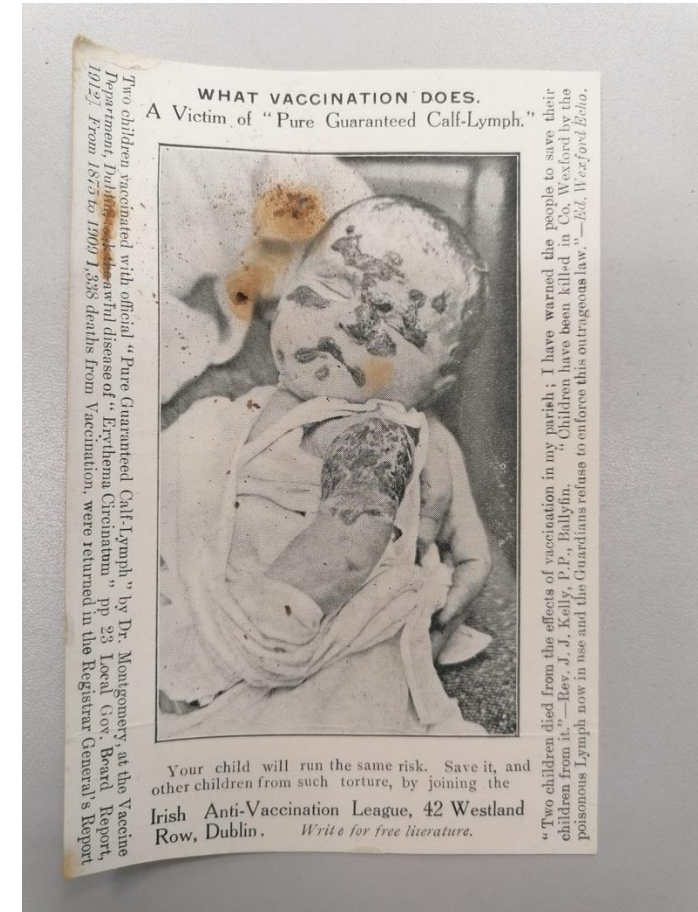
# Anti vax movement in Britain

- 1853: British Anti-Vaccination League, established.
- They argued:
  - The law, they argued, was despotic and un-British as it gave the government power over citizens' bodies.
  - Parents had a God-given right to protect their child's welfare, enforced vaccination was against Natural Law.
  - That animal matter, "the filth of the cowshed", was being injected into their children, along with other diseases such as syphilis.



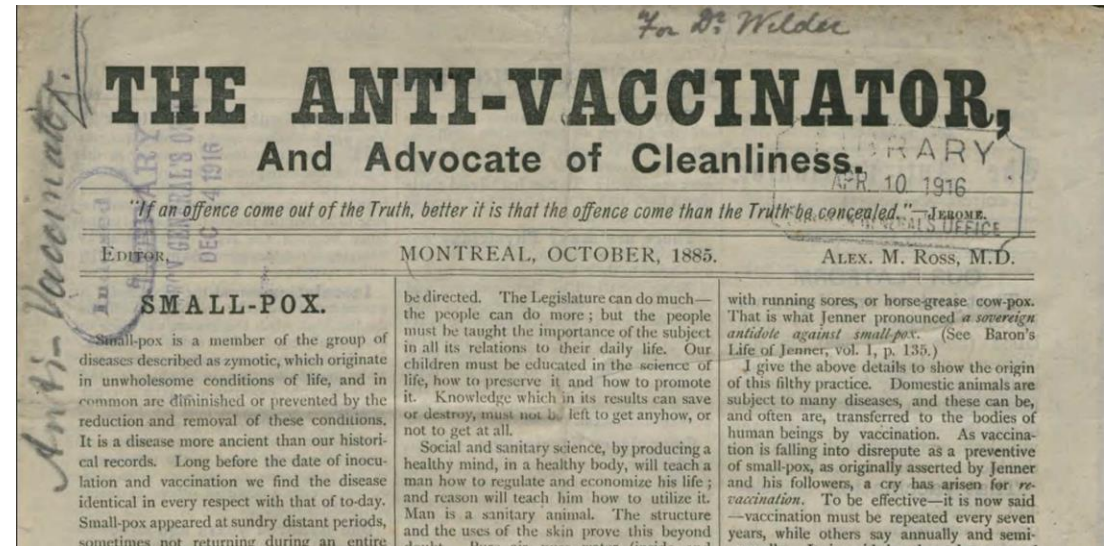
# Ireland

- 1898: Irish Anti-Vaccination League emerged.
- The opposition had some support in Ulster, inspired by the 'Natural Law' argument and the unionist desire for British law to apply fully in Ireland.
- The Belfast Newsletter gave occasional coverage to the movement, but far less than British newspapers gave opposition there.



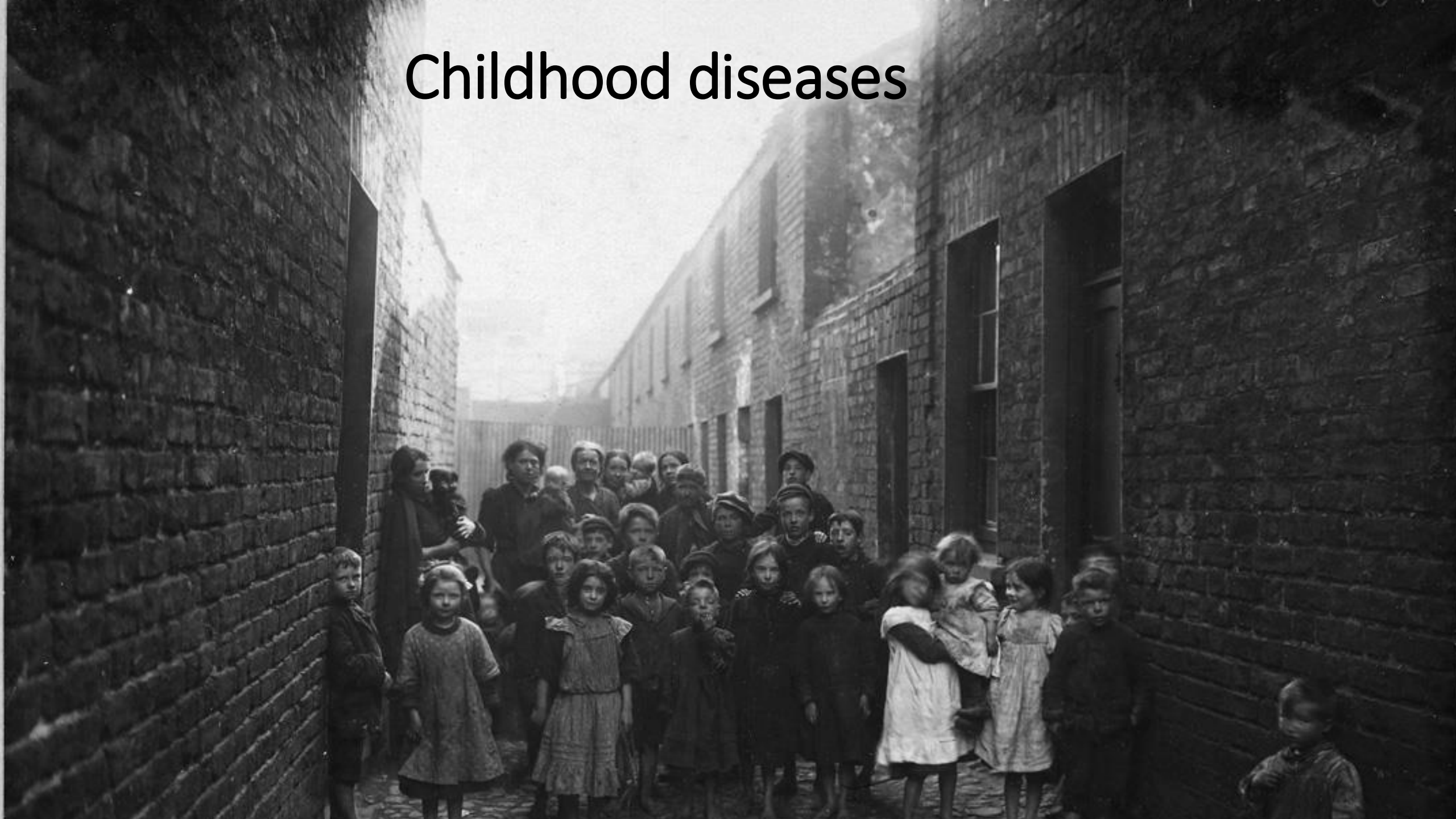
# Action in Belfast

- October 1883: George Troubridge, a school teacher of 2 Mount Pleasant, was summoned by the Board of Guardians for neglecting to have his child vaccinated. He was fined 20 shillings plus costs.
- December: George Troubridge of Mount Pleasant was summoned by the Board of Guardians for not having his child vaccinated. He was fined 20 shillings plus costs.





# Childhood diseases



# Edwardian childhood 'zymotic' diseases

- Many diseases in 1890s onwards that affected children.
- Around 600 children/year died from diseases.
- Breakdown shown for 1910 right.

Diseases.	Number of deaths registered						Total.
	13 wks ended 2nd April.	13 wks ended 2nd July.	Week ended 9th July.	Week ended 16th July.	Week ended 23rd July.	Week ended 30th July.	
Smallpox .....	—	—	—	—	—	—	—
Measles .....	17	361	24	20	21	8	451
Scarlet fever .....	7	2	—	—	—	—	9
Typhus .....	—	—	—	—	—	1	1
Whooping-cough .....	167	66	2	1	1	—	237
Diphtheria .....	4	9	—	1	1	1	16
Pyrexia (origin uncertain) .....	1	3	—	—	—	—	4
Enteric fever .....	6	5	—	—	1	2	14
Diarrhoeal diseases .....	12	21	5	2	5	6	51

Edwardian childhood 'zymotic' diseases

TATE'S AVENUE  
CONTINUATION

45

How to manage these problems?

ARHogg,

170.  
26 JAN. 1915



# Over the counter solutions



Johnson's Mild Compound  
Treatment for Cancer  
**BLOOD PURIFIER**

Johnson's Mild Compound  
Treatment for Cancer  
**BLOOD PURIFIER**

Johnson's Mild Compound  
TREATMENT FOR CANCER  
**BLOOD PURIFIER**



# The Curative Dr Bloom

BNL, 17.12.1833

A letter from Agnes Rouke of Queen's County. She had suffered for nine years with 'sores upon...[her] face, and pains over...[her] body' and had been under the care of the 'most eminent Medical Gentleman [sic]'.

She claimed that her disease had eaten both cheeks of her face and her upper lip was in 'a state truly terrifying to look upon'.

She visited Dr Bloom and 'was cured of...[her] pains and restored to...[her] natural rest. She had been cured 'not only of Cancer, but of Blindness and Dropsy – diseases which have long been supposed incurable'. Her cheeks, 'eaten to the bones' were restored and appeared 'beautiful'.





# Cures for whooping cough



**For Coughs of Children**

Mothers will appreciate the advantage of having a cough remedy for their children which is approved by doctors, and which can be given to children with certainty of benefit. The little ones are peculiarly susceptible to the soothing and tonic influence of Angier's Emulsion, and it must be a very bad cough indeed that will not be quickly relieved by its use. Angier's Emulsion is strongly recommended by the medical profession for colds, coughs, whooping cough, bronchitis and all lung affections; also for scrofula, rickets, and wasting diseases generally. Of all chemists and drug stores, 1/-, 2/6 and 4/-.

**ANGIER'S EMULSION**

"After Fifteen Years' Experience."  
69 Lodge Road, Southampton.

Dear Sirs.—I am thoroughly convinced that Angier's Emulsion is the best article of its kind in the market, and can testify to its value after fifteen years' experience. It has always been given to my children whenever they have had a bad cold or were run-down, and has never failed to do all that is claimed for it. It cannot be too widely known, and I never miss an opportunity of recommending it to my friends.  
(Signed) H. Y. SCOTT.

**Free Sample** Name   
**Coupon.** Address

F.D. Fill in Coupon and send with 3d. for postage to the  
**ANGIER CHEMICAL CO., Ltd., 88 Clerkenwell Road, London.**

Belfast News-Letter - Wednesday  
05 March 1913 p.5

Belfast  
Telegraph  
17 October  
1907 p.6

Belfast  
Telegraph  
- Friday 06  
October  
1911 p.2

**WHOOPING COUGH**  
RELIEVED IN ONE NIGHT BY  
**VENO'S LIGHTNING COUGH CURE.**

Mr. J. H. Small, of 41 Parkes Street, Brierley Hill, gives the following interesting account of his little girl's cure from a severe attack of whooping cough by Veno's Lightning Cough Cure. Mr. Small writes:—  
"My youngest girl, Gertie, suffered for three or four weeks from a bad whooping cough. She was always worse during the night, coughing for several minutes at a time. We tried various so-called remedies, but all to no good, so at last we decided to try Veno's Lightning Cough Cure. We gave her three doses shortly before going to bed, and she did not cough once that night, and now she is quite well and going about as usual."

Veno's Lightning Cough Cure is the purest, safest, and most reliable remedy extant for coughs and colds, bronchitis, asthma, catarrh, sore throat, hoarseness, old-age coughs, children's coughs, and all chest and lung troubles. Price 9½d, 1s 1½d, and 2s 9d, of all chemists and drug stores everywhere. 68864

**WHOOPING COUGH**

cured in a few days by using RICHARDSON'S **WHOOPING COUGH CURE**, 1s and 2s 6d per bottle, by post 3d extra, only from **THE RICHARDSON COMPANY**, 51 Donegall Pass, **Belfast**. PH2012



# Tate's Medical Hall

ESTABLISHED OVER HALF A CENTURY.

9 TATE'S MEDICAL HALL 7

Dispensing Chemist    First Dressing    TATE'S    Perfumery    Patent Forms



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Phone: Belfast 2437.      Telegrams: **TATE** CHEMIST, BELFAST.

THE HEADQUARTERS IN THE CITY FOR MEDICINE AND **MEDICAL** REQUISITES.

*PRESCRIPTIONS A SPECIALITY.*

Foremost in Ireland for Perfumes.      A High-class Business thoroughly up-to-date.

NW, 14.5.1892, p.10

# Tate's medical cures

**SUNBURN.**

**TAN, FRECKLES, REDNESS, ROUGHNESS,** and all blemishes of the Skin are easily and quickly removed by using **TATE'S ROSE and ELDER CREAM.** It is a delightful combination of the extracts of Roses and Elder Flowers, with glycerine and other healing and soothing ingredients, which combine to render it the most agreeable, safe, and perfect balm for the skin ever discovered.

In bottles at 1s each; post, 3d extra.

Prepared and Sold only at

**TATE'S MEDICAL HALL,**  
9 ROYAL AVENUE,  
BELFAST. 4990

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**GET RID OF YOUR CORNS**  
BY USING

**CORNCURINE.**

**A NEW AND PERFECT CURE FOR CORNS.** In Packages, 7d each; post, 1d extra. **FRED. W. D'EVERLIN, Esq., M.B.C.M., Edin. Uni., F.O.S., &c., &c.,** late Hospital Service, Natal Field Force, and Pretoria Siege Garrison, says:—"It has been found, both in Hospital and private practice, to be a most useful and effective remedy for Corns, Warts, and Callousities. Some cases of several years' standing have been completely cured by a few applications, and being very adhesive, painless, and non-irritating, it is vastly superior to the popular caustic and liquid preparations, many of which are very often injurious."

Prepared only at

**TATE'S MEDICAL HALL,**  
9 ROYAL AVENUE (Near Castle Place),  
BELFAST.  
4991

BT 28.6.1889, p.4

**UNEQUALLED PREPARATIONS.**

**TATE'S QUININE AND IRON TONIC** strengthens the system, promotes the appetite, enriches the blood, and thoroughly re-cruits the general health. In Bottles at 1s and 1s 9d each.

**TATE'S PERFECT BLOOD PURIFIER** will immediately cleanse the blood from all impurities from whatever cause arising. It is guaranteed free from mercury or anything injurious to the constitution of either sex. In Bottles at 1s 6d and 2s 6d each.

**TATE'S ROSE AND ELDER CREAM** removes redness, roughness, sunburn, tan freckles, and all blemishes of the skin. In Bottles at 1s each.

**TATE'S CAPILLARY BALM** prevents the hair falling off and soon restores it to its original abundance.

**YANKEE BITTERS** for all Stomach, Liver, and Kidney Complaints. In Bottles at 1s 6d and 2s 6d each.

**TATE'S COMPOUND GRAPE SALT** quickly relieves Headache, Heartburn, Sensitiveness, Constipation, &c., and is a valuable Aperient Medicine. In Bottles at 1s 6d each.

**TATE'S FRAGRANT MYRRHILINE** prevents Tartar, arrests Decay, whitens the Teeth, and imparts freshness to the Mouth and fragrance to the breath. In bottles at 1s 2d each.

**OSOSWEET** (registered). The new and matchless perfume. In bottles at 1s, 3s, 5s, and 10s each.

SOLD ONLY AT

**TATE'S MEDICAL HALL,**  
9 ROYAL AVENUE,  
(NEAR CASTLE PLACE.)

All Drugs, Chemicals, Patent Medicines, Medical and Toilet Requisites of Best Quality and at lowest possible price.

PRESCRIPTIONS CAREFULLY COM-  
POUNDED.

BRANCH ESTABLISHMENT AND LABORATORY:  
**BELFAST PHARMACEUTICAL HALL**  
27 DONEGALL STREET.  
2887

BT 29.9.1886, p.4

**A DELIGHTFUL PRESENT.**

**THE "LADY" says**—"Among the nicest and most welcome presents that can possibly be given in the family circle or from one friend to another are bottles of scent, done up in dainty parcels, such as the exquisite 'Ososweet,' that hails from Ireland, and is declared by many people to be the sweetest and most durable perfume of the day."

**The "QUEEN" says**—"Ososweet is a delightful preparation, and, as a Scent, is at once delicate and durable."

**The "LADY'S PICTORIAL" says**—"A scent equally refined, delightful, and lasting."

Commanded by Mrs. Langtry, Madame Marie Roze, Miss Fortescue, &c., &c.

In bottles at 1/6, 2/6, 3/6, 5/6, and 10/6 each post free, and in fancy cartoon boxes from 5/- to 20/- each.

**SWEET LAVENDER,**  
A New and Delightful Perfume of Marvellous Fragrance.

Miss Maria Davis, "Sweet Lavender" Co., writes—"Your 'Sweet Lavender' is the best I have ever used."

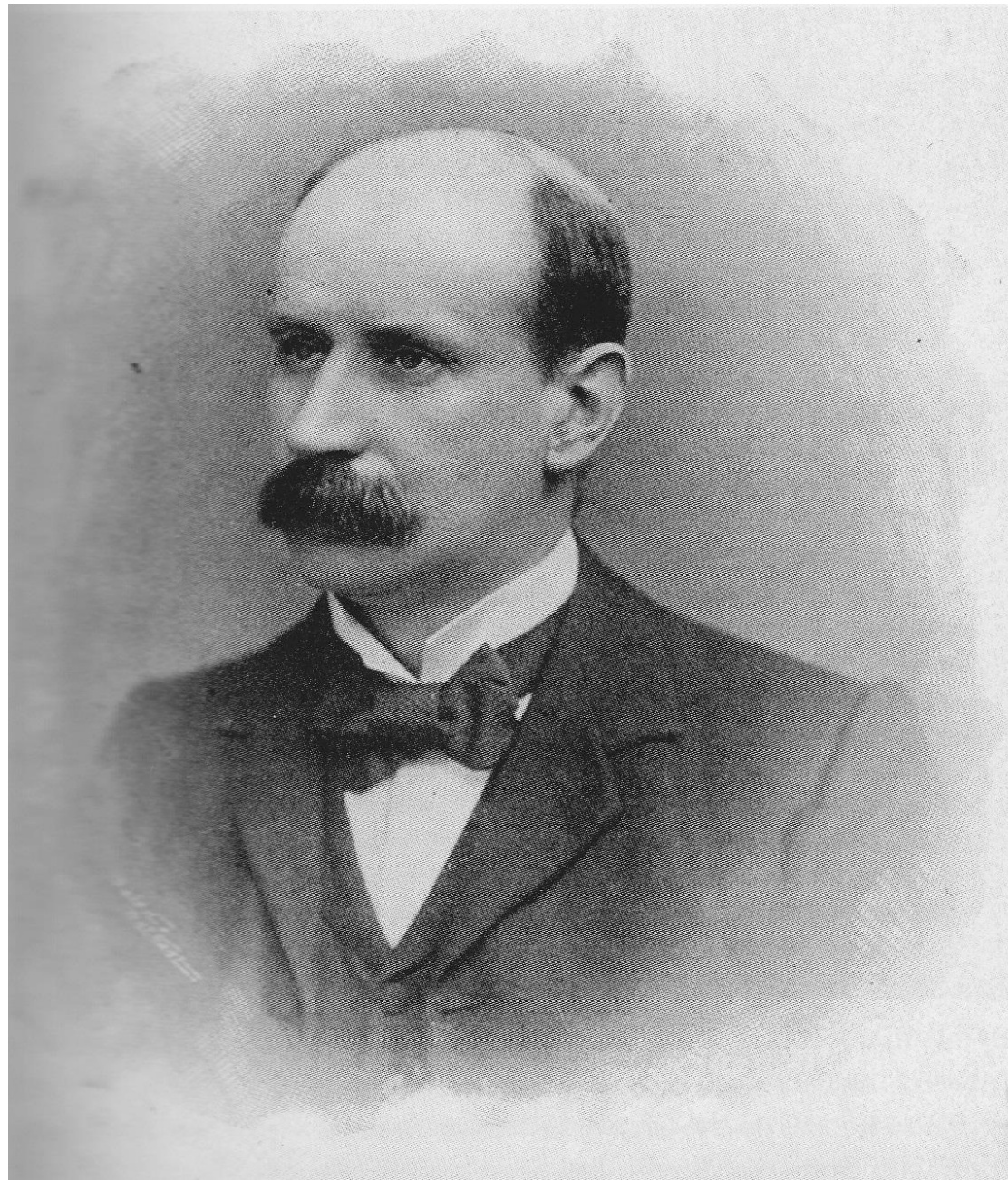
In bottles at 1/2 and 3/6 each, and in beautiful cut glass bottles and fancy cartoon boxes from 5/- to 20/- each

PREPARED ONLY AT

**TATE'S MEDICAL HALL,**  
9 ROYAL AVENUE, BELFAST.  
PERFUMES BY ALL THE LEADING MAKERS AT WHOLESALE PRICES.  
6454

BT 8.1.1891, p.4





# Guiler's Medical Hall,

89 ORMEAU ROAD,

ESTABLISHED 1893,

UNDER THE PERSONAL MANAGEMENT OF

## JAMES GUILER, M.P.S.I.,

Examiner to Phar. Soc., I.

---



PLEASE NOTE.—I carry a full stock of all goods pertaining to the business. The various preparations entering into Prescriptions compounded here are of full standard strength and purity, and I have the *confidence of the Physicians*.

Depôt for Pure Drugs and Chemicals, and the finest class only of Medical, Toilet and Household Requisites; Photographic Plates, Films, Papers, Chemicals, &c.

Instructions by post or telephone (No. 1158) receive prompt attention.

Your patronage will be greatly esteemed.





# Occupational licencing

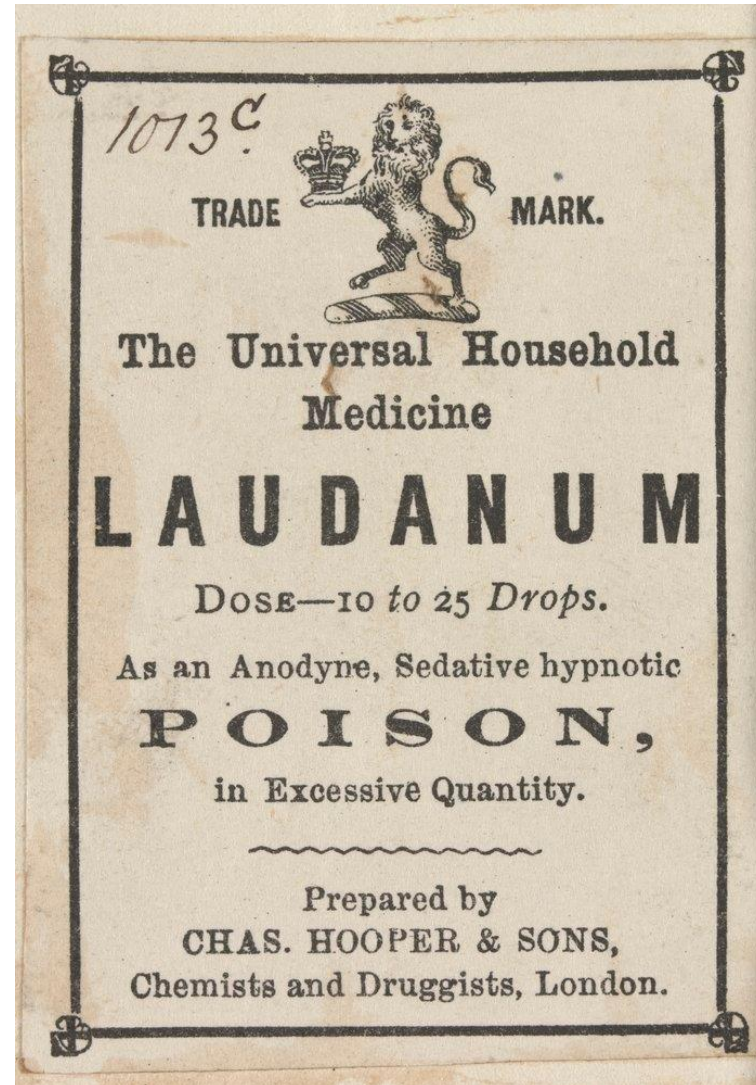
# What is occupational licensing?

- Occupational licensing, also called occupational licensure, is a form of government regulation requiring a license to pursue a particular profession or vocation for compensation.
- There are three forms of government regulation of occupations:
  - Licensing refers to situations in which it is unlawful to carry out a specified range of activities for pay without first having obtained a license..
  - State Certification is generally necessary in order to obtain a statutory license to practice an occupation.
  - Registration refers to situations in which one can register one's name and address and qualifications with the appropriate regulatory body.



# Pharmacists – The Pharmacy Act 1868

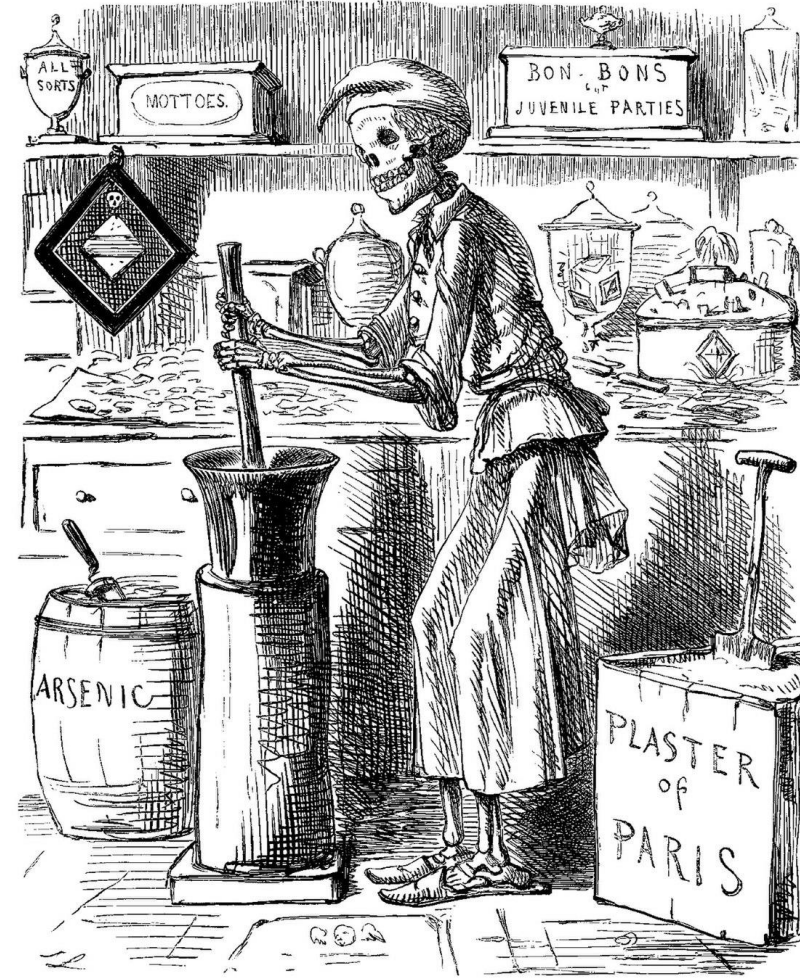
- This was one of the first major acts of Parliament to limit the sale of drugs, such as opium and its popular derivative laudanum.
- The Act established a system of licensing and registration of chemists as well as a list of drugs that, when sold, had to be listed in a “registry.”





# Pharmaceutical Society

- Pharmaceutical Society created in 1841.
- It had campaigned to introduce formal qualifications for pharmacists and to promote the safe use of medicines by knowledgeable professionals, thus improving the reputation of pharmacy among the general public.

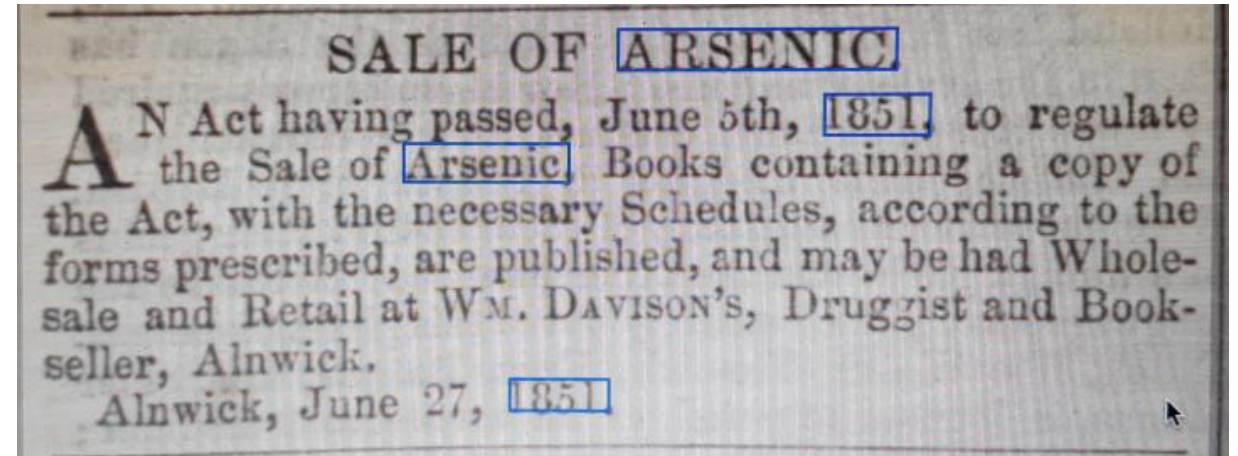


THE GREAT LOZENGE-MAKER.

A Hint to Paterfamilias.

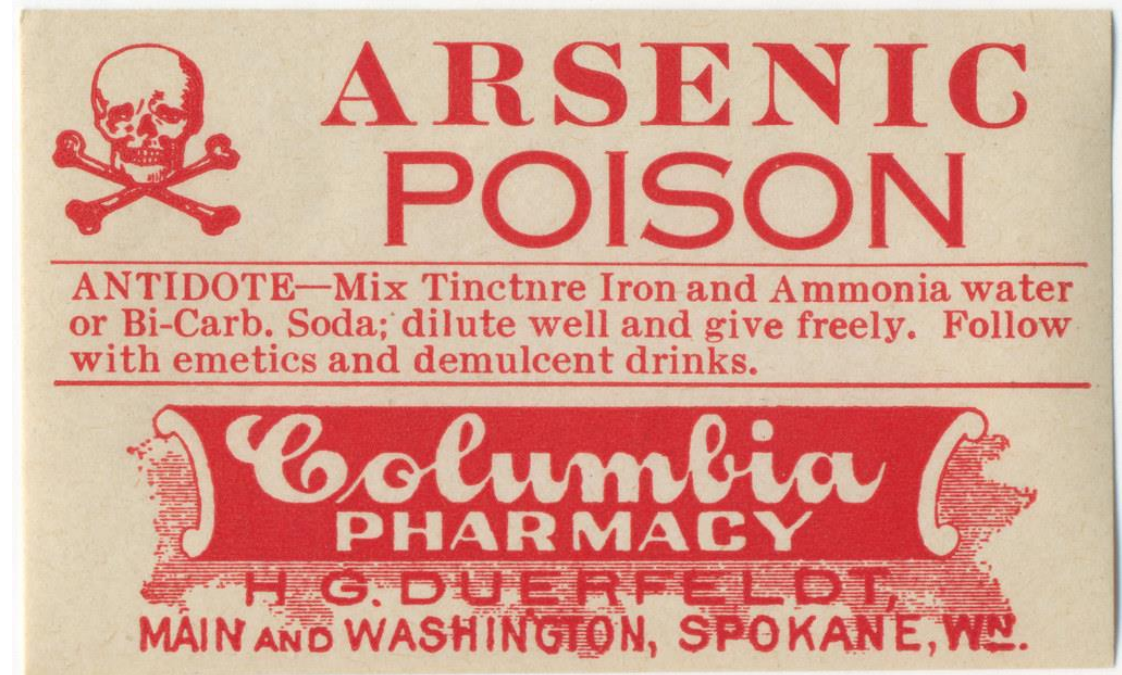
# Regulation of the sale of drugs

- First piece of legislation was 1851 Arsenic Act.
- The Act required that a register had to be kept of all sales, that the buyer had to be known to the seller and that arsenic had to be coloured with a substance such as soot or indigo.
- 1868 Pharmacy Act regulated the sale of 15 named poisons and gave the Society the power to decide which potentially dangerous medicinal substances would be classified as poisons
- It also gave instructions detailing how poisons should be labelled and limited their sale to persons registered with the Society, with qualification being passing one of the School of Pharmacy's examinations.



# Enforcement of the Legislation in Belfast

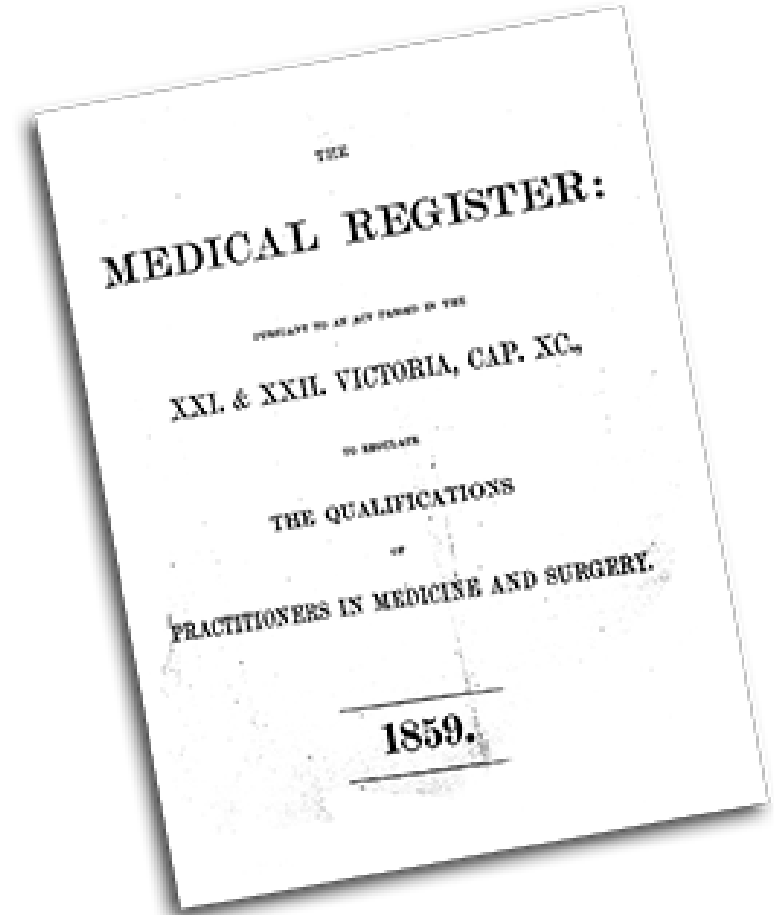
- August 1887: James Brown and John Henry Savage, trading as J. Browne and Co., 204 North Street, were summoned by the Pharmaceutical Society of Ireland for having sold poison, namely laudanum, and kept a shop contrary to the Pharmacy Act 1875. They were fined £5 for compounding a prescription and the case for selling laudanum was dismissed.
- May 1890: William J. Rankin, a chemist and druggist, of 173 New Lodge Road, was summoned by the Pharmaceutical Society of Ireland for retailing poisons contrary to the Pharmacy Act, not being registered as a pharmaceutical chemist. He was fined £5.





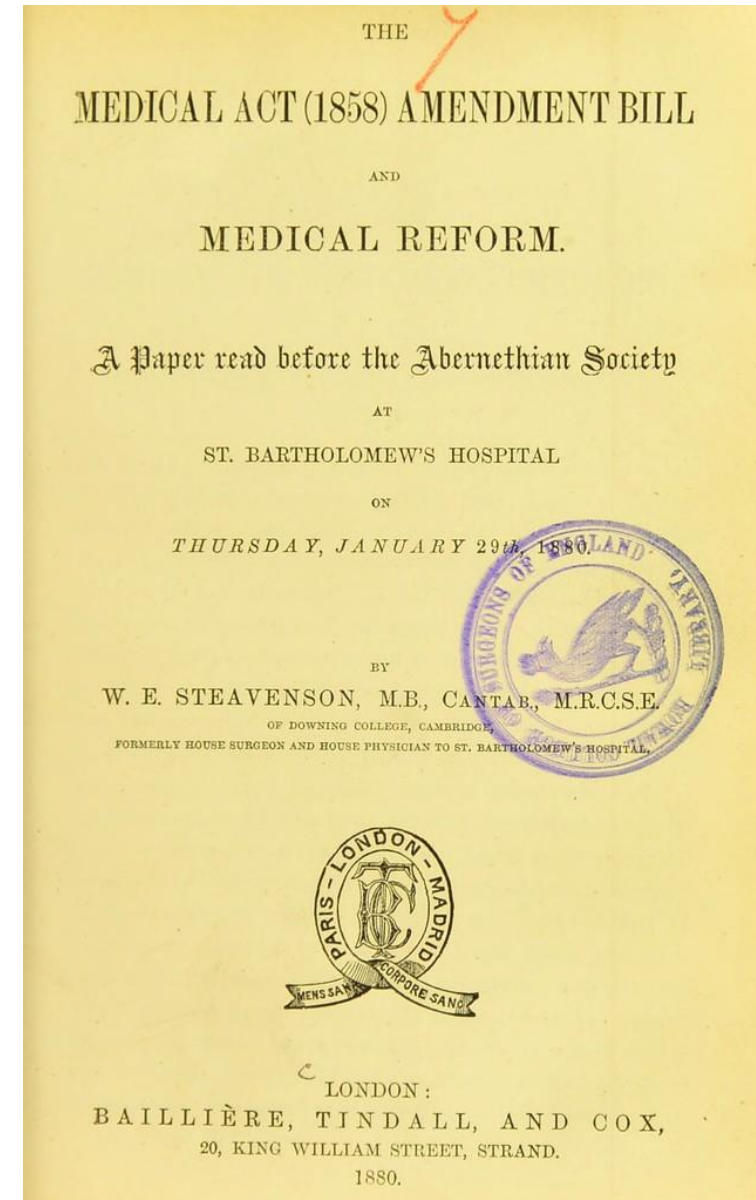
# Doctors – the General Medical Council

- GMC works 'to protect patient safety and support medical education and practice across the UK' [website today].
- Formed under the Medical Act 1858. Drew the 19 bodies regulating the UK medical profession into one organisation; even the Archbishop of Canterbury had a right to issue a licence to practise.
- Why?
  - 1841 Census estimates suggest a third of all doctors in England were unqualified.
  - And back then professional titles were usually local. This meant a doctor from Glasgow may not be able to practice elsewhere.
  - In short, there was no single way of saying who was a doctor in the UK (including Ireland at that time) and who was not.



# Operation of the GMC

- Putting together the first medical register was no easy feat.
- Thousands scrambled to apply in the last days of 1858, delaying publication by six months.
- Richard Organ was the first doctor to be removed from the register for being unqualified in 1860.
- In 1899, the council held its first hearing with a doctor facing a conviction for 'drunkenness'.



# Nurses

- In 1887, the Hospitals Association established a non-statutory voluntary register for nurses.
- In 1901 there were 3,170 paid nurses employed in workhouses.
- In total there were about 63,500 female nurses and 5,700 male nurses in England and Wales, working both in institutions and, the majority, in patients homes.
- Nurses Registration Act 1919 set It set up the General Nursing Council, established a a general register for all those trained in general nursing, and supplementary registers for mental nursing, mental deficiency nursing, fever nursing paediatric nursing and for male nurses.







# Public Baths

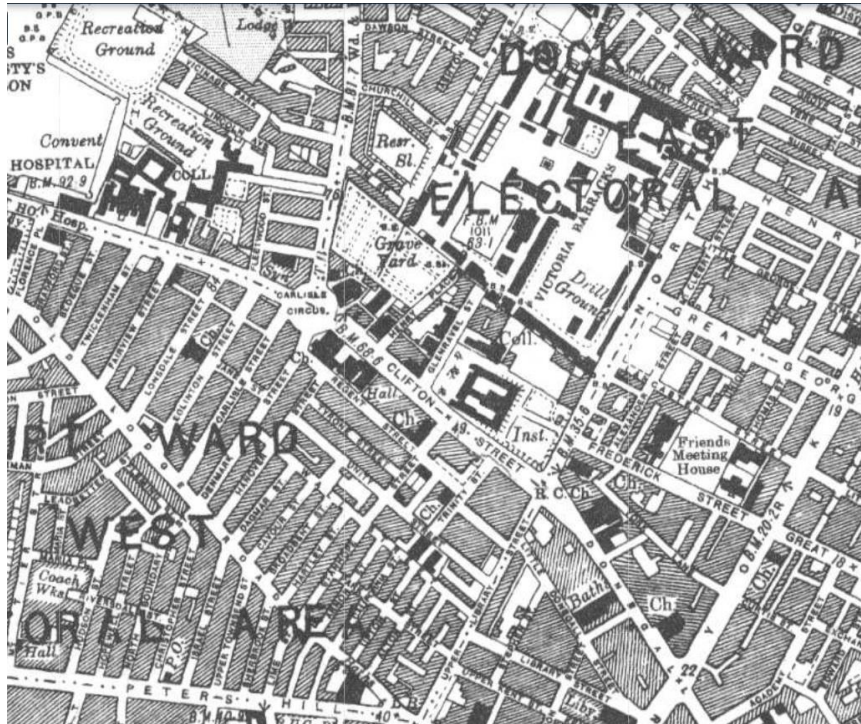
# Purpose

- Aimed to improve public hygiene, prevent the spread of disease and promote health.
- Baths and Wash House Act of 1846 enabled their construction.
- 273 public baths in UK in 1918.





# Turkish Baths, Donegall Street, 1860



## TURKISH BATHS, 112, DONEGALL STREET, BELFAST.

THESE improved TURKISH BATHS are in constant operation, Sundays excepted.

These Baths were built by Dr. Barter, on his patent principle, and are managed by proved attendants from Blarney, under his directions, the same as at Dublin, Cork, Limerick, Waterford, Sligo, Bray, Killarney.

### TERMS.

#### FIRST CLASS.

	s.	d.
From 6 to 8 a.m., . . . . .	1	6
From 6 to 8 p.m., . . . . .	1	6
Shampooing, . . . . .	0	6
Subscription Ticket for 12 Baths at the above-named hours, . . . . .	15	0
From 10 a.m. to 4 p.m., . . . . .	2	6
Subscription Ticket for 12 Baths, . . . . .	24	0
Shampooing, . . . . .	0	6
Subscription Shampooing Ticket for 12 Baths, . . . . .	4	0

#### SECOND CLASS.

	s.	d.
From 6 to 8 a.m., . . . . .	0	6
From 6 to 8 p.m., . . . . .	0	6
From 10 a.m. to 4 p.m., . . . . .	0	9
Shampooing, with the use of Sheet, . . . . .	0	3
Children under four years, Free to the Baths.		
Children under ten years, Half-price.		

Come, and take "THE BATH."

ENTRANCE TO FIRST CLASS, 112, DONEGALL STREET.  
ENTRANCE TO SECOND CLASS, 43, LITTLE DONEGALL STREET.



# The first public baths...

- May 1847: Belfast Public Baths and Washhouses, which have opened recently, will remain open for inspection for one week. There are thirteen bathrooms, a waiting room, shower and vapour baths and a washing room capable of accommodating 68 washerwomen and many more ironing and drying rooms. Admission for ladies and gentlemen is 1 shilling, for the working classes it is 1d.
- June 1847: A total of 1,328 people attended the new bath and washhouses since it opened nine days ago.
- July 1847: Belfast Public Baths and Washhouses have been visited by 244 first class bathers, 629 second class, thus promoting the practise of cleanliness among the working classes.
- June 1848: Mr. David Ross delivered a lecture on the history and advantages of baths and the practise of bathing. The proceeds from the lecture will go toward the upkeep of the Baths and Washhouses of Belfast.



# The spread of public baths

- May 1879: Public baths were erected in Belfast at a site at Peters Hill.
- January 1889: Ormeau Baths, in Ormeau Avenue, were officially opened
- 1893: public baths on Templemore Avenue were opened as the 'Ballymacarrett Baths'.
- May 1896: Falls Road baths opened. There were eight first class baths for gentlemen, and three for ladies, plus two fine swimming ponds, the first class one measuring 155 feet and the second class one 66 feet, which is reserved for ladies on a Tuesday between noon and 9pm.



# Falls Road Public Baths





# Food standards and safety



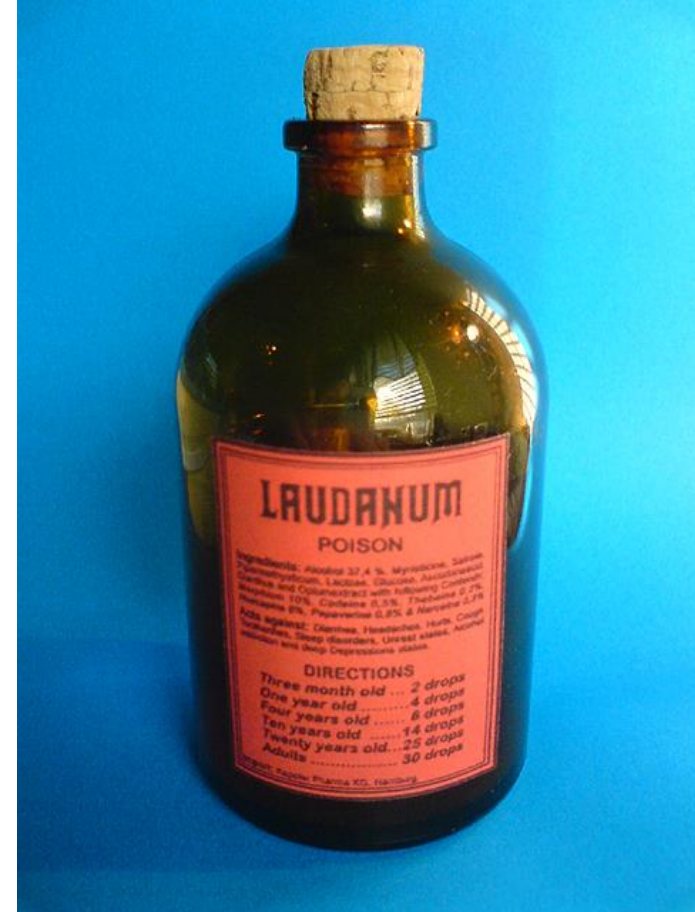
# Food safety legislation

- Adulterated food a major source of illness.
- Dr Arthur Hill Hassal, a British physician, chemist and microscopist studied food adulteration in the 1850s, and after being convinced that his coffee was being contaminated by chicory, he published many reports in *The Lancet*
- 1853: Birmingham surgeon John Postgate became convinced that adulteration was a leading cause of disease.
- 1860: Adulteration of Food and Drink Act. The first general Act empowered the appointment of public analysts but only seven were appointed.
- 1872: Adulteration of Food and Drink and Drugs Act made the appointment of public analysts mandatory and made it an offence to sell mixtures (chicory and coffee, for example) unless these was declared.
- 1875: Sale of Food and Drugs Act had a big impact in improving the quality of basic foods, the suppression of adulteration and in establishing food purity. It confirmed offences of strict liability and introduced heavy penalties for adulteration of food including three months hard labour for a second offence.
- Public Health Act 1875 provided powers to inspect and seize unsound food.



# The need for food safety

- **July 1866:** Thirteen people were poisoned and two died in the neighbourhood of Newtownards by eating portions of a veal calf, which a butcher had sold to them in the market place. The two who died are a sixty-three year old farmer named Hugh Smyth and a twenty-three year old man named Richard Kerr. Several of those who were poisoned were supposed to be beyond recovery.
- **February 1873:** An inquest was held in the General Hospital on the body named William Harkley, who died from poisoning by laudanum. During the inquest, Head-Constable Irwin referred to a new Act which made it illegal to sell these types of drugs, by wholesale or retail, unless it was distinctly labelled with its name and the word 'poison'. The jury concluded that the child had died from an overdose of laudanum and that the overdose was thoughtlessly and accidentally administered by Margaret Harkley, the mother of the deceased.





# Sale and slaughter of meat

- **October 1843:** A quantity of unsound beef and pork was seized from a yard in North Street, owned by Mr. Vint.
- **November 1843 :** A woman from Killead was gaoled for 24 hours for offering a quantity of trout for sale in Arthur Square, during the closed season.
- **December 1848:** Belfast Sanitary Committee met to discuss the state of slaughterhouses in the town. Those in Hercules Street and Black's Lane were said to be in a particularly poor state.
- **April 1855:** A countryman named John Allen was charged with selling a calf-skin in Mill Street contrary to the market regulations. The man said that he never knew that there was a particular place for selling calf-skins. However, ignorance was declared to be no sufficient plea and he was fined.
- 



Workers and officials at abattoir in McAuley St, 1901



# Building regulations, housing and urban planning



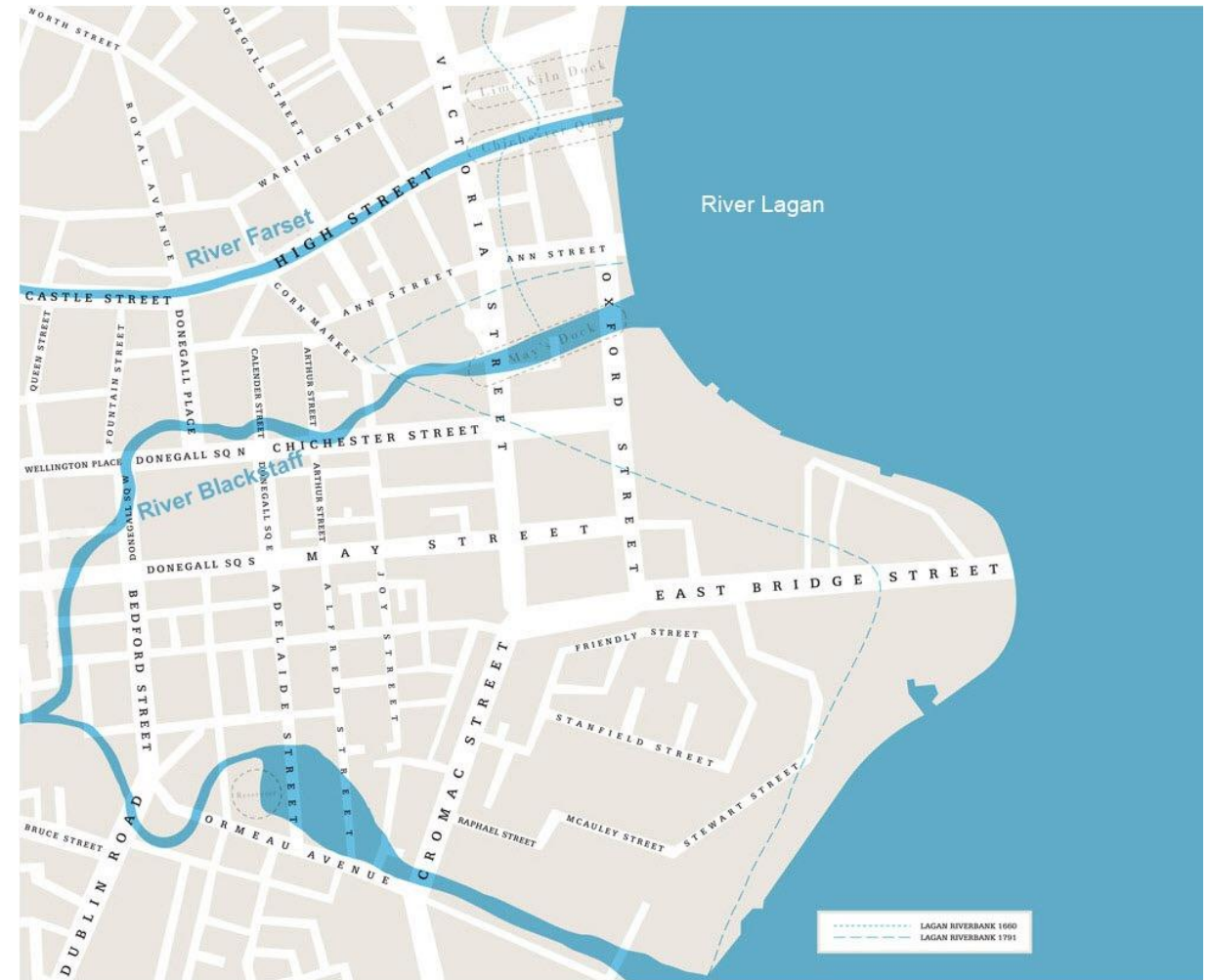
# Rivers



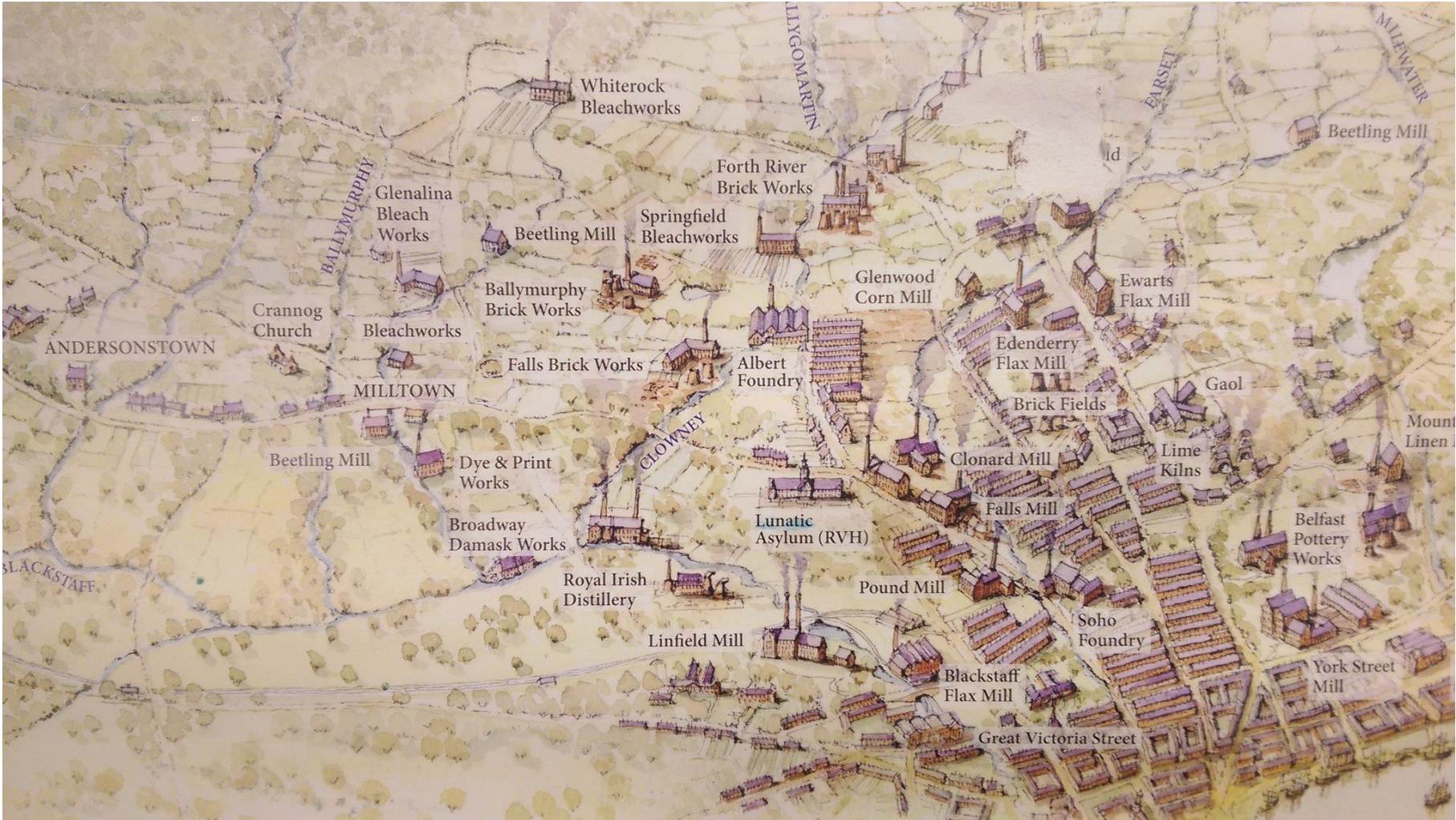


# Rivers

- Belfast has many rivers; most famous are the Blackstaff, Lagan and Farset.
- Rivers the site of sewage and industrial waste with the rapid industrialisation and urbanisation of the city.
- Rivers frequently blocked by waste that lead to flooding.



# Mills and industries located on the rivers



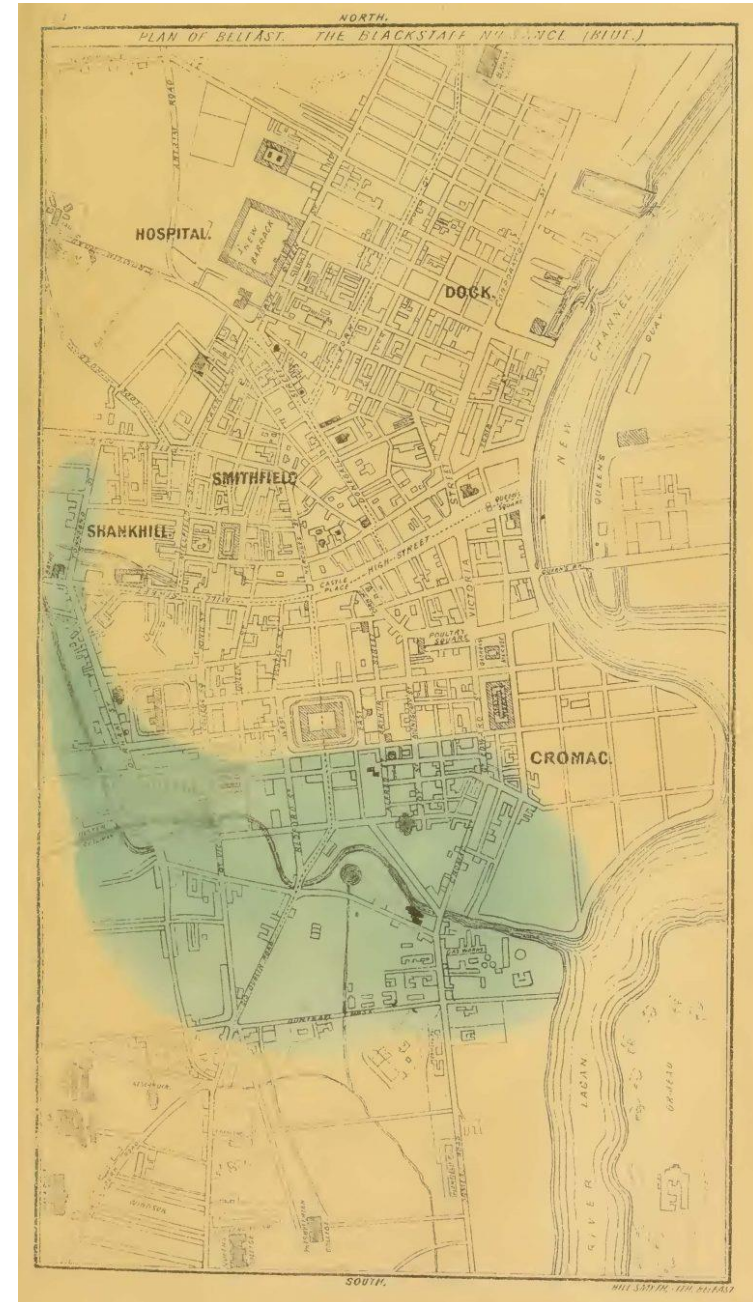


# The Blackstaff 'Menace'

In 1852, Dr Henry McCormac, speaking to the British Association for the Advancement of Science, referring to the River Blackstaff asked: 'Who would believe that in a large, flourishing intelligent town like Belfast, and in the very face of an approaching pestilence, a black sewer-like stream, worse than the London fleet, should be suffered to pollute the air with exhalations the most virulent and intolerable?'

Fever cases very high in areas adjoining the Blackstaff (e.g. Sandy Row)

In 1849, at a Town Hall meeting about the 'Blackstaff nuisance', Rev. William Johnston reported visiting sick persons 'while the water was within half-an-inch of the beds on which they were lying'. Little wonder, he said, that disease was endemic 'so long as people have damp feet and a flood of water poured in upon them'.





# Dealing with the 'Menace'

- April 1854 : A meeting was held in the Town Hall to discuss the "Blackstaff Nuisance." It is proposed to purchase properties along the Blackstaff and sewers are to be built in order to drain the sewage from the river
- In 1872, local doctor George Frederick Wales blamed the Corporation for apathy and inaction.
- Estimated that there were enormous costs of cleaning the river and diverting sewage for the ongoing situation.
- Parliamentary Act of 1878 authorised the diversion of the River Blackstaff and it was buried underground (underneath the area stretching from Sandy Row, Ormeau Avenue to the Gasworks).
- River culveted in 1880s.



# View of the Blackstaff, 1912



# River Farset

- Increasingly clogged with industrial waste as cotton and linen mills increased.
- River a human sewer as the only place to deposit waste.
- Smell was bad.
- Culvetted started around 1770s and completed by 1860s.





# Improvement of the housing estate



# State of houses

“When we consider that, little more than twenty years ago, we could boast of but a single flax-spinning factory, and that now upwards of forty tall chimneys spring from similar establishments, it is little wonder that we should find disease, and especially epidemic disease, on the increase. To give accommodation to the thousand [factory] operatives which the giant demand of an unusually prosperous manufacture created, strings of houses on the simplest plan were hurried up, generally without sufficient carefulness as to drainage, ventilation, house wants or situation.”

A.G. Malcolm, *The Sanitary State of Belfast with Suggestions for its Improvements* (Belfast: Henry Greer, 1852)

# Many houses were in a dangerous state

- January 1843: Charles Moss, aged 15, who is employed at Messrs. Mulholland's spinning mill, died in Francis Street when a house which had been used as a minor theatre, fell in on him and crushed him under the ruins. The tragedy has led to a call to Magistrates to compel owners of such dangerous buildings to have them demolished
- January 1863: The roof of a two-storey house in Pottinger's Entry, occupied by Mr. Archibald Moorhead – copper and tinsmith – as a workshop, fell in causing the wall above the second floor to give way. The building was one of the many old tenements in the neighbourhood of Ann Street and was said to have reached the mature age of a hundred years.





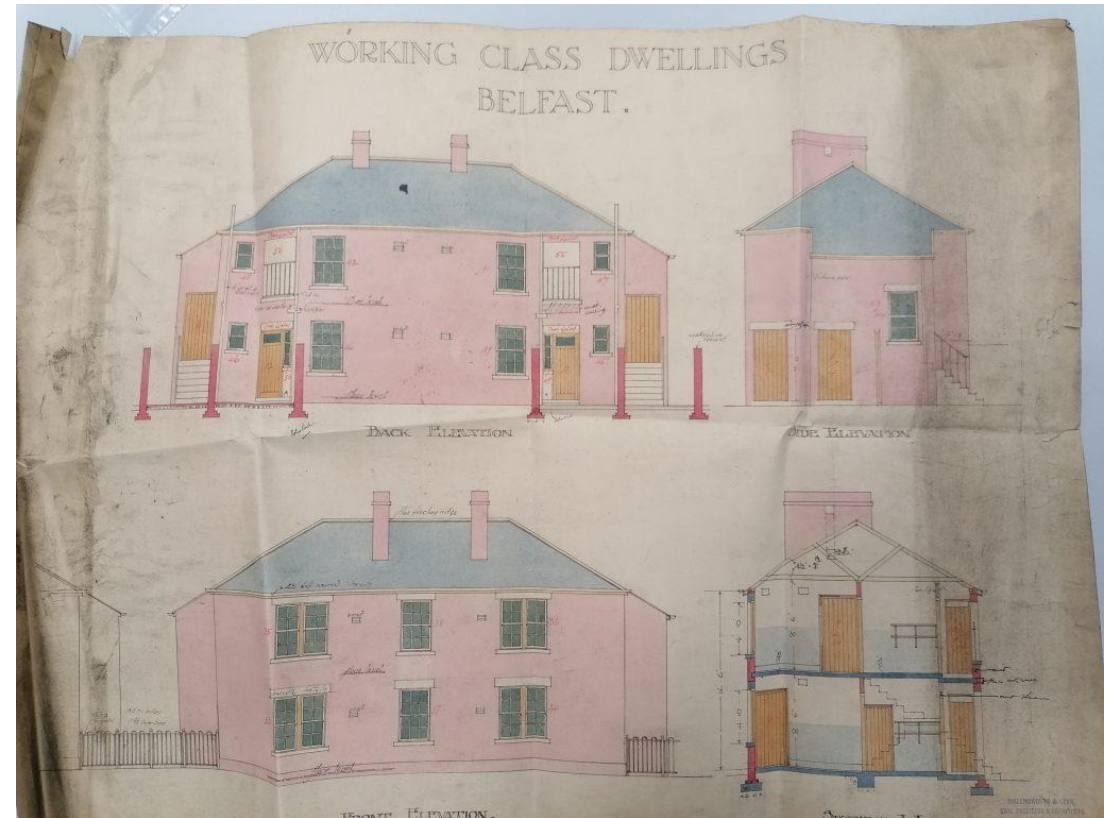
# Occupancy and services

- Piped water
  - 1848: Only 3/10 houses had piped water.
- State of the town's estate:
  - 1858: During a house-to-house visit of the entire town, local medical officers discovered that Belfast had 79 unpaved and 285 badly paved streets, 4,046 houses with no back yard, 4,326 without draining and 6,179 without a proper receptacle for human waste.
  - 1894: The Public Health Committee reported that where 20,000 houses are back to back. It said 'all the recent typhoid cases occur in such houses'.



# Redevelopment of the city

- Major building boom in the later 19th century.
- 56% of all houses built between 1861 to 1917 were built in the 1880s and 1890s.
- People prosecuted for allowing houses to deteriorate:
  - May 1881, Joseph Wilson was summoned for permitting houses (numbers 11 and 17 Conlon Street) to be in a condition unfit for human habitation. It was thought the houses were not worth repairing.
  - May 1884: David Beatty, a rent agent, was summoned for allowing three houses in Kennedy's Court, off Barrack Street, to be in an uninhabitable condition. They were thought to be the oldest houses in Belfast. He was given one month to fix or demolish them.
- Occupancy per house hold decreased:
  - 1852 the average number of people living in a single house in Belfast was 6.72
  - 1901 it was 5.2
  - 1911 it was 5.0.



# Enforcement of health standards

- May 1856: Sanitary Inspector Lavery, while on duty in McTear Street found 14 pigs in a dwelling occupied by two families. In the upper part of the house a woman sat with a sick child, aged about two, over here the 14 pigs were kept and the smell being almost unbearable. The inspector had the pigs removed and the house whitewashed.
- September 1896: The coroner read a report into the sanitary conditions of Henrietta Court, recommending that a closing order be served on the houses, which were unfit for human habitation.
- January 1897: Jane Redford of Ballinderry, County Antrim, was summoned to show why a closing order should not be served on numbers 2,3,4,5,6,7,8,9,10,11,12,13,14 and 15 Hopp's Court, off Millfield, opposite Brown Street. Fifty-two people occupied fourteen houses which were unfit for human habitation, the premises being injurious to health. After much deliberation, the closing order was granted.





# Town planning

Nº 89



# Ongoing process to redevelop the town

- March 1845 : Permission has been applied for to remove houses, buildings and yards in Lodge Road, Castle Place, Rosemary Street, Great Edward Street, Georges Lane, Police Place, Poultry Square, Ann Street, James Street, Great Patrick Street and Hercules Street under the auspices of The Belfast Improvement Bill. A new street is to be built from the west end of May's Dock, crossing Ann Street and terminating at High Street.
- May 1879: Houses in Hudson's Entry and Ritchie's Place, which ran from Smithfield to North Street, were demolished. The residents of 69 houses moved out of the area. The area was cleared to build a new road to connect Smithfield Square with North Street establishing an indirect route to York Street and Mill Street.



# Building sewers

- May 1845 : The quarterly meeting of the Belfast Town Council discussed the need to remedy flooding in Durham Street, Brown Square and Smithfield. It was suggested that a sewer should be constructed to carry floodwater away.
- September 1870: The Town Council were recently engaged in the construction of a great main sewer in North Street, which would run the whole way from the Belfast Bank, over Peter's Hill to Townsend Street. The sewer would be one of the largest and most substantially built works of its kind in Belfast. The sewer was recently completed, causing a vast improvement in the condition of North Street as an important thoroughfare.
- April 1873: A correspondent in a Belfast newspaper called attention to 'a most intolerable nuisance that exists in an open drain in the fields south side of Fitzroy Avenue (the Plains), caused by the drainage from a number of houses, more of which are being erected without any provision for drainage'.





# Replacing the 'long bridge'

- **May 1840:** The new bridge at Belfast is about to be proceed with. It is to be placed on the same site as the present Long Bridge. The new Long Bridge is to consist of five arches, each fifty feet span, with ten feet rise. On the Antrim side, sufficient space is left, so as to widen the quay, when so desirable an object is attainable. Several tenders for the execution of the new bridge were forwarded to the Board of Works. It is gratifying, that our townsman, Mr. Ritchie, is named by the board, as the contractor, at we believe 27,000 pounds. There is to be a resident clerk of works and the building is to be the superintendence of Messrs. Fraser and Laynon, Civil Engineers. It will require nearly three years to complete the bridge.
- Bridge renamed the Queen's Bridge in 1849.



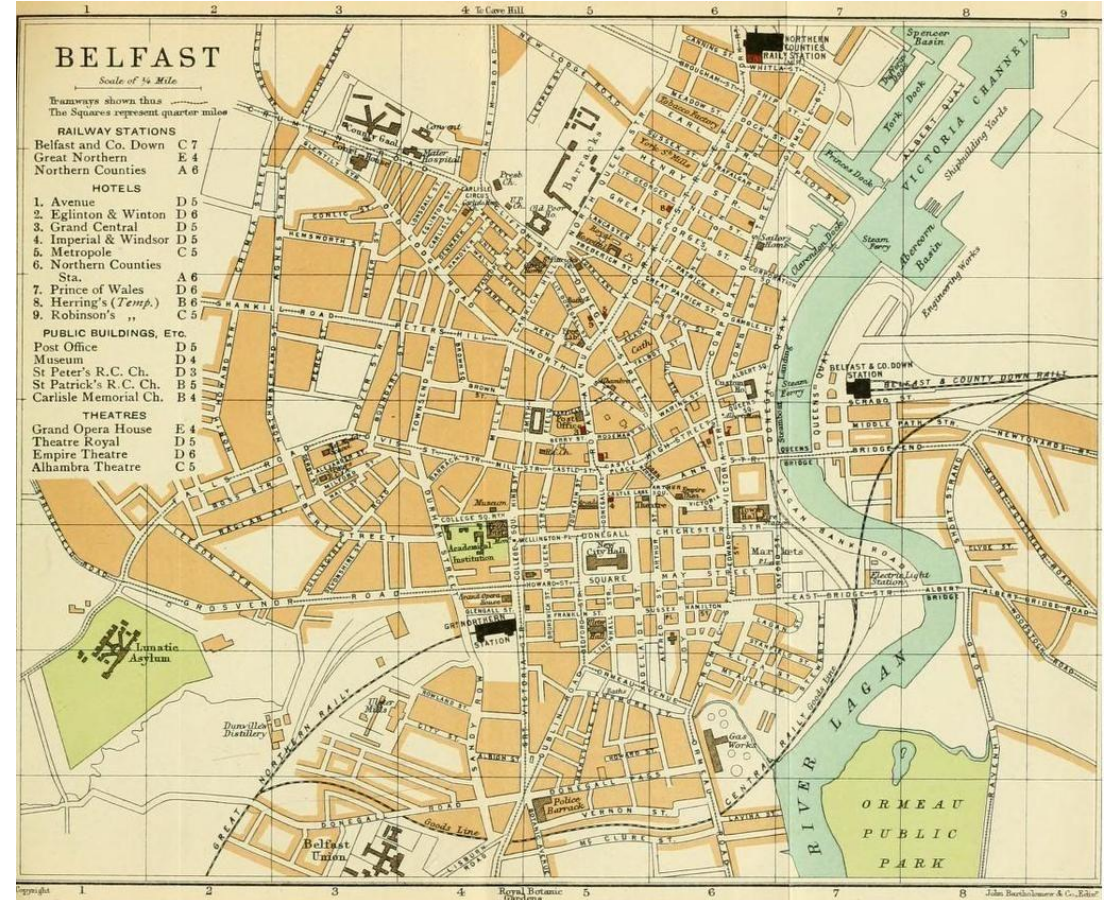
# Street lighting

- 1800 Police Act aimed to improve cleaning, reduce crime, improve lighting and safety of Belfast.
- Gas lighting start to appear in the 1820s/30s
- Street lighting deterred crime; August 1844 reported that there was an attempted burglary and highway robbery committed by a gang of ruffians in Donegall Pass. Calls have been made for illumination of this notorious area by gas light.
- Reported that in June 1845 that 'Belfast was left in darkness when the gas streetlights failed. Complaints have been issued to the Town Council on the dangers of this practise.'
- August 1858: There were 'many complaints about the deficiency of lighting in the town'.
- 1880s: electric lighting starts to appear. This started to replace gas lighting.



# Re-mapping the city

- December 1861 In many of the streets in Belfast, certain blocks of houses are known by distinctive names, apart from those of the streets themselves. Many households therefore have two addresses - for example 'No.5 Richmond Terrace' is also 'No.123 Great Victoria Street'. It is suggested that this be corrected as soon as possible





# Drinking water

- April 1859: A meeting has been held in the town hall to discuss the best means of furthering the erection of public drinking fountains.
- April 1861: The Belfast Drinking Fountains' Association erected a new fountain in Castle Place. It was the gift of John Owden, Esq. of Sea Park and was said to be of 'very beautiful design'.
- April 1865: A new ornamental stone drinking fountain was built at the angle formed by Great Victoria Street and the Old Dublin Road, nearly opposite the end of Donegall Place. The architect was W.J. Barre, Esq., and the builder was Mr. Graham of York Street.



# Cemeteries

- July 1847: A meeting at the Town Hall heard that 'every portion of different burial grounds in Belfast is completely occupied and that due to health risks existing graveyards cannot be opened. The Poor Law commissioners urged the opening of new grounds for the burial of the destitute poor of Belfast.
- The Belfast Burial Ground Act (1866) allowed new cemeteries to be developed and opened across the city.
- Belfast City Cemetery. Opened on 1 August 1869 as a cross denominational burial ground for the people of Belfast. Separate areas for Protestant and Catholic areas, divided by a sunken wall. Since its opening in 1869 around 226,000 people have been buried in the cemetery.
- Milltown Cemetery. In September 1870, ceremony of consecration for the Catholic cemetery. Around 200,000 people buried there.



Questions?