

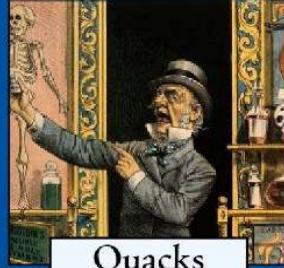
Buboes, Boils and Belly Aches:
Essays on Health and Disease
in the Black Country.

Kevin Goodman



**Disease and Illness in
The Black Country:
A History.**
Volume 1:
Medieval to Early Modern

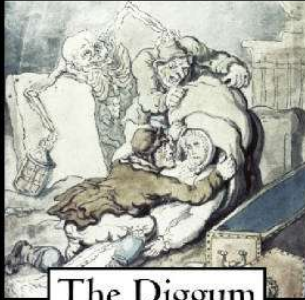
Kevin Goodman



**Quacks
and Cures**

QUACK DOCTORS & FOLK HEALING
OF THE BLACK COUNTRY

KEVIN GOODMAN



**The Diggum
Uppers**

BODY SNATCHING AND GRAVE
ROBBING IN THE BLACK COUNTRY

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Detail from

*Griffiths' Guide to the iron trade of Great Britain an
elaborate review of the iron (and) coal trades for last year,
addresses and names of all ironmasters, with a list of blast
furnaces, iron manufactories and other statistics and
information respecting iron and coal (1873)*

The Author

Kevin Goodman is a Black Country born and bred author specialising in the medical history of the Black Country. His published works include:

Ouch! A History of Arrow Wound Treatment (2012)

The Lords of Dudley Castle and the Welsh Wars of Edward I
(2014)

The Diggum Uppers: Body Snatching and Grave Robbing in the Black Country (2017)

Quacks and Cures: Quack Doctors and Folk Healing of the Black Country (2017)

Disease and Illness in The Black Country 1: A History: Medieval to Early Modern, (2020)

He has appeared in several documentaries for television (including “The Great Plague” for Channel 5) and radio. He travels the country delivering presentations and displays on the history of medicine and surgery to audiences in schools, museums, festivals of history and societies

More details regarding displays and presentations can be found at:

<https://bowsbladesandbattles.tripod.com>

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Introduction

The Black Country is comprised of the heavy industrial areas of the counties of Staffordshire and Worcestershire. For readers who are unfamiliar with the Black Country and where it is located, the official Black Country History website¹ states that the Black Country is today comprised of the boroughs of Dudley, Walsall, Sandwell, and Wolverhampton in the West Midlands.

It also points out: *“It has no agreed borders and no two Black Country men or women will agree on where its starts or ends”*

The industries of mining, metal working, lime production, glass working - among many others - produced a landscape that was described by the Elihu Burritt, the US Consul in Birmingham as *“Red by day and black by night”* in his *“Walks in the Black Country and its Green Border-land”* (1868). While the Scottish engineer James Naysmith described it thus:

“The Black Country is anything but picturesque. The earth seems to have been turned inside out. Its entrails are strewn about; nearly the entire surface of the ground is covered with cinder-heaps and mounds of scoriae... only the skeletons of [trees] remained, dead, black, and leafless. The grass had been parched and killed by the vapours of sulphurous acid thrown out by the chimneys; and every herbaceous object was

¹ <http://blackcountryhistory.org/places>

of a ghastly gray -- the emblem of vegetable death in its saddest aspect.” (p163-4)².

The term “Black Country” arose from the layer of soot which covered the area.

Harsh working environments and overcrowded, insanitary living conditions had a negative impact upon the health of the populations of the people in the villages and towns. This subject is the focus of my on-going series “*Disease and Illness in The Black Country*”.

This book contains essays on aspects of medicine, disease, and health care in the Black Country. Some of the essays have already been published on-line and I have included three original ones. It can be read as a standalone or as a complimentary volume to my other works on the Black Country.

Please enjoy.

Kevin Goodman.

² Nasmyth, J.(1883) *James Nasmyth, Engineer: An Autobiography*. John Murray London.

The Quarantining of a Staffordshire Town During Seventeenth Century Plague Outbreaks

In 1665 a flea-infested bundle of cloth arrived from plague-afflicted London for the tailor in the Derbyshire village of Eyam. Within a week people were dying from the plague. The Reverend William Mompesson, and the Puritan minister Thomas Stanley introduced a number of measures to slow the spread of the illness from May 1666, including: arranging for families to bury their own dead; relocating church services to the nearby natural amphitheatre of Cucklett Delph, allowing villagers to keep a distance between themselves thus reducing the risk of infection and quarantining the entire village to prevent further spread of the disease (Paul 2012). While the death toll is believed to be high, there is debate as to how many died (Coleman 1986; Wallis 2006); however, the courage of the villagers has been much lauded for enduring the quarantine and successfully preventing the spread to neighbouring parishes (Clifford 1995; Daniel 1985).

Caused by the bacteria *Yersinia pestis*, plague is transmitted by fleas which have fed on the blood of infected black rats; the fleas may be passed via skin to skin contact or on bedding and clothing. Once bitten, the victim experiences flu-like symptoms and the lymph node (in the neck, groin or armpit) nearest the bite becomes swollen, tender, and purple or black: the classic sign of Bubonic plague - the bubo. Death can come two to four days after the onset of symptoms. However, once inside the body the bacteria can multiply in the blood stream and become the Septicæmic strain of plague. The symptoms are more pronounced and violent than those of Bubonic: fever; chills; abdominal pain; vomiting; diarrhoea; bleeding from the nose, mouth and anus and purpura (bleeding

underneath the skin, causing the skin to turn black), eventually the victim goes into shock and dies. It has a higher mortality rate than Bubonic. If carried via the blood stream to the lungs, Pneumonic plague results - the only form of the disease that allows human to human transmission. Symptoms develop within one to three days: severe headache; high temperature; shortness of breath; chest pain, coughing and bloody sputum. Coughing and spitting produce airborne droplets laden with the highly infectious bacteria and through inhalation others become infected. With Pneumonic plague death occurs within twenty-four to seventy-two hours of exposure. This is the most virulent strain, and untreated it is fatal 90-95% of the time (Sherman 2006).

Prior to the understanding of pathogens, the dominant philosophy governing health and illness was Humourism, which held that the human body is filled with four basic liquids or humours: Blood, Phlegm, Black Bile and Yellow Bile. When a person was healthy, the humours were balanced, while all diseases and infirmities resulted from an excess or deficit of one of the humours. Several variables could affect the balance of the humours: food and drink ingested; physical activity; strong emotions; the seasons of the year; weather, astrological alignments of the planets, geographical regions and occupations. Poisoned or corrupted air known as Miasma (from the ancient Greek for defiled air) was regarded as the chief cause of epidemic disease. Miasmatic theory was the foremost explanation for disease up until the mid to late nineteenth century. Miasma was produced by decomposing matter (*miasmata*). Therefore, infections would affect those living near a place that gave rise to such vapours, (for example: open sewers, cesspools, graveyards, slaughterhouses, swamps, and marshes), and during epidemics arising from the breath of the

infected. The Miasma could enter the body by inhaling it or through the pores of the skin. The aim of medical treatment was to restore the equilibrium of the humours by removing the surfeit or deficit. Through the fourteenth to the seventeenth centuries the main forms of protection aimed to drive the miasma away and included: carrying and inhaling pomanders or bunches of fragrant herbs; keeping the house clean and fumigated through burning aromatic plants and incense; eating a simple diet and keeping streets free of detritus and burning fires in the street (Arrizabalaga 1994; Singer 1916; Sudhoff 1912-13).

Another important method of preventing the transmission was the quarantining of villages and towns, and restricting travel from infected areas.

Quarantine was first introduced in 1377 in Dubrovnik on Croatia's Dalmatian Coast as a means of separating people, animals, and goods that may have been exposed to plague. The phrase quarantine is derived from the Italian *quaranta*, meaning forty as people and items were kept in quarantine for forty days – possibly from Jesus having isolated himself for forty days and nights. The first English quarantine regulations were drawn up in 1663, for the confinement of ships with suspected plague-infected passengers or crew in the Thames estuary. The captain had to show evidence of the health of the sailors and passengers and provide information on the origin of any merchandise on board. If there was any suspicion of disease on the ship, the captain was ordered to proceed to the quarantine area, where passengers and crew were isolated, and the vessel was thoroughly fumigated and retained for the requisite period (Tognotti 2013).

As in the case of Eyam, cities, towns and villages could place themselves under quarantine and control people entering from infected areas. The restricting of movement during times of plague was a common occurrence in the sixteenth and seventeenth centuries to prevent the spread of plague; certificates, which permitted movement, had to be signed by dignitaries from their hometown testifying that it was plague free (Benedictow 2004). The Royal College of Physicians in the *Certain necessary directions as well for the cure of the plague, as for preventing the infection* (1665) recommended that those:

...who may remove or travel from places much infected to sound; that none might travel without Certificate of health ; that persons justly suspected might not be suffered to enter such places free from infection , but speedily sent away, or kept in some house or houses set apart to receive such persons (with accommodation of necessaries) for forty or thirty days at least, until their soundness [symptoms] might appear; and that any goods coming from like places might be opened and aired before received into houses free and clear.

While the Orders conceived and published by the Lord Major and aldermen of the city of London (1665) observed:

Forasmuch as nothing is more complained of, then the multitude of Rogues and wandering Beggars that swarm in, being a great cause of the spreading of the Infection, and will not be avoided, notwithstanding any Order that hath been given to the contrary: It is therefore now ordered, that such Constables, and others whom this matter may any way concern, do take special care that no wandering Beggar be suffered in the Streets of this City, in any fashion or manner whatsoever

upon the penalty provided by the Law to be duly and severely executed.

In 1637, the town of Walsall, Staffordshire, was struck with plague along with Kidderminster, Worcestershire, and Birmingham (Shrewsbury 1971). However, it may have been restricted to Walsall's environs. The municipal authorities attempted to control its spread by authorizing the borough constable to appoint warders to prevent strangers entering the town without a valid certificate. He was also to report the names of any warders who refused to do their duty and to warn "Innkeepers, Alehouse keepers and Victualers" that they could not admit any strangers without a certificate (Walsall Archives):

*To THE CONSTABLE OF WALLSALL BURROWE
Whereas the infection of the plague is dispersed into divers parts of this kingdom by reason whereof it is verie dangerous to permit strange passengers to stay or abide in our Towne these are therefore to require you that imedyatlie you appoint foure sufficient housekeepers to ward every day, (till you have directions to surcrease), who shall ward either in their own persons , or place some other able men in their turnes, such as you in your discretion shall approve of , who shall stand at every end of the Towne to keepe out all such strangers as shall not bring a certificate that they come from noe infected places. And that you charge the sayd warders that they shall not suffer and suche stranger to stay in the Towne, as they will answare for their remissions at their peril. And if any whome you shall appoint shalbe refractarie and refuse to ward, or shalbe negligent in their places, that you give us notice of their names and prese [express] their offence; and we have ordered their good behaviour shall be granted against them; hereof you may*

not faile, as you will answare for your neglect at your perill. Given under our hands at Wallsall Boroughe, the seventeenth day of June, Anno Dom. 1637. And further that you warne all the Innkeepers, Alehousekeepers, and Victualers within your constablewick that they doe not nor shall receive any suche stranger into their houses withoute ye like certificate, as they will avoyd the penaltie of beinge bound to ther good behaviour and suppression for victuallinge or sellingue ale any longer. Tho. Wollaston, Maior, Henrye Stone William Webb

In July 1637, a local shoemaker was prosecuted for bringing leather into Walsall from an infected part of Birmingham and a woman from Birmingham afflicted by the plague was paid to leave the town (Willmore 1887). Leather was believed, along with other materials, (such as wool and velvet), to carry the plague and its transportation was restricted.

In 1665, the plague struck again, although it was mainly confined to London and its suburbs. Johnathan Dicken of Walsall died of the plague on August 4th 1665 (Willmore 1887) and stringent precautions were once again adopted. On 26th August the following was issued (Walsall Archives):

BURROUGH AND FFORREN OF WALSALL
Whereas wee apprehend the greate danger of the carriers going to and returning from London, having found by sad experience that for their own private advantage, (having at present double and treble the pay for carriage that they had formerly), have not refused to bring down both persons and goods to their owne knowledge out of infected parishes and places, to the endangering not only of themselves and families, but of the whole towne and countrey. And also being induced hereunto by the late danger wee were in by the death of a young man (wtch is not yet over). That if it please god to prevent oure

feares, it shd not only lay an obligation of thankfulness for oure utmost dilligence and endeavours for prevention of the like danger, doe hereby order in manner and forme following, that is to say,

1. That if any carrier shall for the future desperately adventure to travell to London untill it shall please God upon the removeall or good abatement of the sicknes he may goe with lesse danger and more safety; and shall presume to come home to his owne house at Walsall, that his house shall be shutt upp for the space of one month at the least.

2. That noe inhabitant presume to enterteine any such carrier or their servants into their houses or companies by the space of one month after their retorne from London, or receive any goods or wares brought downe by them before the same have been aired by the space of one month at the least, upon the payne of having their house shutt up, and to be otherwayes proceeded against as dangerous persons & contemners of Authority.

3. That noe inhabitant within the liberties of the burrough and fforren aforesaid, shall hereafter presume to enterteyne anye passengers braught by the carriers or otherwise, only ife they make it appeare by legall testimony that they have been out of the Citty and subburbs of London by the space of one month at the least, and untill they may receive them with more safety, upon the like payne.

4. Lastly, that all inhabitants, householders within the liberties of the sayd burrough and fforen, doe watch and ward with either their owne persons, or others that shall be approved of by the constables, at suche times and places as the constables shall appointe. And that the warders continue in their ward

untill the watch come to relieve them at night. And the watchers continue their watch untill the warders come to relieve them in the morning, upon payne of every one being found negligent in any of the premises, to be bound to their good behaviour.

Richard Blackham,

Maior. John Saunsom

William Smith

Articles 1 and 2 observe that should anyone “*travell to London*” during the time of plague and then return to their house in Walsall or receive “*goods or wares*” that have not been properly quarantined and aired their house would be “*shutt up*”. This involved all members of the household being locked up within the house for forty days with a watchman remaining outside at all hours to prevent sick or exposed individuals leaving and the healthy entering; the only visitors permitted were nurses, who were often elderly widows. The time could be extended if a member of the household began to show symptoms of the plague or died from it during confinement. In such cases the front door would be marked with a red cross and the words “*Lord has mercy upon us*” daubed upon it (*The shutting up infected houses 1665*).

Thanks to these measures, Walsall escaped the plague. According to Willmore, there were few deaths in the borough, but “*many thousands*” (p279) in London.

Arrizabalaga, J. (1994) ‘Facing the Black Death: perceptions and reactions of university medical practitioners’, in L. Garcia-Ballester, R. French, J. Arrizabalaga and A. Cunningham (eds), *Practical medicine from Salerno to the*

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Benedictow .O.J. (2004) *The Black Death, 1346-1353: The Complete History*. Boydell & Brewer.

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Daniel C. (1985) *Story of Eyam plague*. Bakewell, UK: Country Bookstore Publications.

Orders conceived and published by the Lord Major and aldermen of the city of London, concerning the infection of the plague. Printed by James Flesher (1665).

Paul, D. (2012) *Eyam Plague Village*. Amberley Publishing.

Royal College of Physicians of London (1665) Certain necessary directions as well for the cure of the plague, as for preventing the infection: with many easie medicines of small charge, very profitable to His Majesties subjects. London: Printed by John Bill and Christopher Barker.

Sherman I.W. (2006) *Twelve Diseases That Changed Our World*. Washington: ASM Press.

Shrewsbury, J.F.D. (1971) *A History of Bubonic Plague in the British Isles*. Cambridge University Press.

Singer, D.W. (1916) Some Plague Tractates (Fourteenth and Fifteenth Centuries) *Proceedings of the Royal Society of Medicine*, 9 (Sect Hist Med), 159-212.

Sudhoff, K. (1912-13) Pestschriften aus den ersten 150 Jahren nach der Epidemie des schwarzen Todes 1348. *Archiv für Geschichte der Medizin*, 6, 313-379.

The shutting up infected houses as it is practised in England soberly debated By way of address from the poor souls that are visited, to their brethren that are free. With observations on the wayes whereby the present infection hath spread. As also a certain method of diet, attendance, lodging and physick, experimented in the recovery of many sick persons (1665) London.

Tognotti, E. (2013) Lessons from the History of Quarantine, from Plague to Influenza A. *Emerging Infectious Diseases*. 19(2), 254-9.

Wallis P. (2006) A dreadful heritage: interpreting epidemic disease at Eyam, 1666–2000. *History Workshop Journal*. 61, 31–56.

Willmore, F.W. (1887) *A History of Walsall and Its Neighbourhood*. Walsall: W.H.Robinson.

A Black Country Plague Cure

In the seventeenth century there was little understanding of how plague could be cured. There was no comprehension of pathogens (such as the plague-causing *Yersinia pestis*) or how the body reacted to them. It was believed the body was comprised of four humours: blood, phlegm, yellow bile and black bile. When a person was healthy, the humours were balanced, while all diseases and infirmities resulted from an excess or deficit of one of the humours. Several variables could affect the balance of the humours: food and drink ingested; physical activity; strong emotions; the seasons of the year; weather, astrological alignments of the planets, geographical regions and occupations. Poisoned or corrupted air known as Miasma was regarded as the chief cause of epidemic disease, it could enter the body by inhalation or through the pores of the skin. The aim of medical treatment was to restore the equilibrium of the humours (Arrizabalaga 1994; Singer 1916; Sudhoff 1912-13).

Through the fourteenth to the seventeenth centuries the main forms of protection aimed to drive the miasma away. They included: carrying and inhaling pomanders or bunches of fragrant herbs; keeping the house clean and fumigated through burning aromatic plants and incense; eating a simple diet and keeping streets free of detritus and burning fires in the street (Arrizabalaga 1994; Singer 1916; Sudhoff 1912-13). A popular - supposed - preventative and remedy during the seventeenth and eighteenth centuries were *Aqua epidemia*: Plague or Pestilence Waters - distillations of various ingredients including: herbs, roots, minerals and on occasion, more unusual ones (including unicorn horn, rhino horn,

elephants' teeth and bezoar stones³), all believed to be efficacious (Brockbank 1964; Crellin 2020).

Eliza Smith's *Plague Water* from her *The compleat housewife: or, Accomplish'd gentlewoman's companion* (1732) lists over 22 ingredients, all of which aimed at balancing the humours:

TAKE Rosa-solis, Agrimony, Betony, Scabious, Century-tops, Scordium, Balm, Rue, Wormwood, Mugwort, Celandine, Rosemary, Marigold-leaves, brown Sage, Burnet, Carduus, and Dragons, of each a large Handful; and Angelica-roots, Peony roots, Turmentil-roots, Elecampane-roots, and Liquorish, of each one Ounce; cut the Herbs, and slice the Roots, and put them all into an earthen Pot, and put to them a Gallon of White wine, and a Quart of Brandy, and let them steep two Days close covered; then distil it in an ordinary Still with a gentle Fire: You may sweeten it, but not much.

There were numerous recipes, it was common for a single manuscript to include multiple, different recipes for such waters. They were being published and made by reputable physicians such as the Royal College of Physicians, but also by Quacks, out to profit from the misery (Crellin 2020). Daniel Defoe in his *Journal of the Plague Year* vividly describes how advertisements for such cures abounded in 1665:

³ Bezoar stones: found in the intestines of animals. They are formed by indigestible materials being surrounded by layers of calcium and magnesium phosphate, which are squeezed by stomach contractions into a rounded shape. They were believed to protect against poison – the name is derived from the Persian word *pa(d)zhar*: *antidote against poison* (Barroso 2013).

On the other hand it is incredible and scarce to be imagined, how the posts of houses and corners of streets were plastered over with doctors' bills and papers of ignorant fellows, quacking and tampering in physic, and inviting the people to come to them for remedies, which was generally set off with such flourishes as these, viz.: 'Infallible preventive pills against the plague. 'Never failing preservatives against the infection.' 'Sovereign cordials against the corruption of the air.' 'Exact regulations for the conduct of the body in case of an infection.' 'Anti-pestilential pills' 'Incomparable drink against the plague, never found out before.' 'An universal remedy for the plague.' 'The only true plague water.' 'The royal antidote against all kinds of infection';—and such a number more that I cannot reckon up; and if I could, would fill a book of themselves to set them down (p.32)

The diarist Samuel Pepys recorded that on Thursday 20 July 1665: “*My Lady Carteret did this day give me a bottle of plague-water home with me.*”

The Black Country suffered several outbreaks of plague from the fourteenth to the seventeenth century, (for further details see my book: *Disease and Illness in The Black Country 1: A History: Medieval to Early Modern*), yet to the present, only been two recipes for Plague Water from the area discovered.

The Folger Shakespeare Library in Washington, United States, holds several receipt books. Receipt books were hand-written manuals that contained a combination of culinary recipes, medical remedies, and household tips - essentially documenting the work of seventeenth- and eighteenth-century women at home (Kowalchuk 2017). One of the receipt books, from around 1675, belonged to Lettice Pudsey. She introduces

it as: "*Lettice Pudsey Her Booke of receipts these following written with my owner hand*" (p.246, Kowalchuk 2017), and contains recipes for medicines, cosmetics, and cooking. Her family is believed to have come from Seisdon, near Himley, Staffordshire, although little is known about her (Kowalchuk 2017). Lettice's book contains two recipes, similar to that of Eliza Smith in terms of ingredients:

The surfett or plague witter: good aganst any infections: deases & to dire any thing from the hart: it is to be made in may or iune: /

Tack sage: saline: rosemary: wormwood: Balme: rosasoles: mugwort: pympernell: scabious: Egrimonye: rue= mint= scordium: card us; Betonye: Dragon: cowslips fflowers: marigolds flowers': of each a larg hatful: tormentell rootes; angilico: alycompane: pyonye: zyduiary: lycorich: of each one: onnce: & a lettel safron: sreed the herbs well & smale: alltogather: & bruse the roots: steepe them all in a gallon of whit wine: or sake sack is better for 2 days & 2 nights: stiring them once a day: putt them in a earthen pot: & bee sure to stop it close: you may mack 2 stillfull of thes quantetie if you please: or elce one: destill it in a ordinary still: tack of the first running one pint: of the second running one quart: of the last one pint: which is the fittest for chillderinge: of the first 2 spoonfull will sarue: of the second 4: of the last for children: 2 or 3 spoonefull: you may giue it at any time: when you see ocatione: warme it a lettel: & sweeten with sugar: when you use it: or with surrip of gillefflours: or uioletts: this is my lady shirleys: recipee :/ (p.269, Kowalchuk 2017).

The surfeit or plague water: good against any

infections: diseases & to drive anything from
the heart: it is to be made in May or June: /

Take sage: celandine: rosemary: wormwood: Balm: Rosa soles
[Sundew]: mugwort: pimpernel: scabious: Agrimony: rue=
mint= scordium [water germander]: cardus [Holy Thistle];
Betony: Dragon [tarragon]: cowslips flowers: marigolds
flowers: of each a large handful: tormentil roots; angelica:
elecampane: peony: zedoary: Liquorice: of each one: ounce: &
a little saffron: shred the herbs well & small: altogether: &
bruise the roots: steep them all in a gallon of white wine: or
sack, sack is better for 2 days & 2 nights: stirring them once a
day: put them in an earthen pot: & be sure to stop it close: you
may make 2 still-full of this quantity if you please: or else one:
distil it in a ordinary still: take of the first running one pint: of
the second running one quart: of the last one pint: which is the
fittest for children: of the first 2 spoonful will serve: of the
second 4: of the last for children: 2 or 3 spoonful: you may give
it at any time: when you see occasion: warm it a little: &
sweeten with sugar: when you use it: or with syrup of
gillyflowers: or violets: this is my Lady Shirley's⁴: receipt : /

The second receipt from Lettice:

To mack another plauge water /

*Tack of rue: betenny: egremony: scabious: fetherfuw:
sesendine: browne may weede. Bawme: aueirs augellico:
cardus: burnett: sorrell: wormmood: mugwort: pimpernell:
sage: plantane: dragon: marigolds the greene leaues:
allicompane roots: scraft & sliced of each of these 3 pounds:
but of rosemarie 6 pounds: chap them very smale & put them*

⁴ The identity of Lady Shirley is unknown.

into 8 gallands of the best whit wine: & couer them very close all a night & a day: & then destill them in an ordiary: still: keep the frist runing which is the strongest by itself: & the second by it selfe: beeing weaker / when you giue of it warme it & put sugar in it: some 3 or 4 sponefull at a time is a nough / (p.274-5, Kowalchuk 2017).

To make another plague water /

Take of rue: betony: agrimony: scabious: feverfew: celandine: brown mayweed. Balm: aveirs [Herb Bennet] angelica: cardus [Holy Thistle]: burnet: sorrel: wormwood: mugwort: pimpernel: sage: plantain: dragon: marigolds the green leaves: elecampane roots: scrapped & sliced of each of these 3 pounds: bit of rosemary 6 pounds: chop them very small & put them into 8 gallons of the best white wine: & cover them very close all a night & a day: & then distil them in an ordinary: still: keep the first running which is the strongest by itself: & the second by itself: being weaker / when you give of it warm it & put sugar in it: some 3 or 4 spoonful at a time is enough /

Were these plague waters effective against plague? The treatment of plague requires antibiotics, therefore the answer is no. However, the ones above do have limited antibacterial effects due to the alcohol content and there may have been a positive impact upon feelings of wellbeing - although marigold and penny royal can be toxic. In some respects, such waters are close to herbal wines and *The New York Times* (21st February 2019) reported that a New York Distillery was making safe versions of these waters.

Arrizabalaga, J. (1994) 'Facing the Black Death: perceptions and reactions of university medical practitioners',

in L. Garcia-Ballester, R. French, J. Arrizabalaga and A. Cunningham (eds) *Practical medicine from Salerno to the Black Death*, Cambridge Cambridge University Press, 237–88.

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The Man Whose Hands and Legs Rotted Off: A Seventeenth Century Case of Necrotizing Fasciitis

In the final half of the seventeenth century John Duncalf (son of Richard Duncalf of Codsall, near Wolverhampton), was an apprentice of Thomas Gibbons, a wheelwright of Kingswinford. Almost three years into his apprenticeship Duncalf and a fellow apprentice stole a large amount of iron from their master and delivered it to an accomplice who concealed it. However, they were caught.

Brought before Lord Ward of Dudley Castle⁵ they first accused each other, then finally confessed to stealing “26 pounds of old iron, besides more that was wrought up, new wagon-nails, Ends of Bars etc” (Illingworth 1677⁶). They were found guilty on October 14th 1675 and were sent to prison. However, Duncalf’s accomplice became dangerously sick and “*this John Duncalf pretending at least to be sick also, they two were set at liberty the week following*” (Illingworth 1677).

Upon his release Duncalf vowed he would never set foot in Kingswinford again while he lived. He also refused to return to his former apprenticeship and paid his master forty shillings in exchange for a release.

Soon after he began to engage in: “*licentious courses*” which included, according to Illingworth (1677):

idleness, stealing, lying, cursing, swearing, drunkenness, and uncleanness with women... by lascivious

⁵ Edward Ward, 7th Baron Dudley, 2nd Baron Ward 1631-1701)

⁶ Rev. J.A.Illingwoth (d.1693) , a non-conformist minister who was living at Prestwood at this time claimed to be a witness to the events (Guttery 1956)

words and gestures, whereby he had endeavoured to tempt them to lewdness in divers places...he had committed a rape upon a young person and afterwards murdered her. That he was guilty of buggery and lying with beasts, etc.

It cannot be discounted that in describing Duncalf's crimes, Illingworth may have engaged in some embellishment.

On January 6th, 1676, Duncalf visited the house of Humphrey Babb at Grange Mill, three miles from Wolverhampton. Babb was out, but he begged from Margaret, Babb's wife, some food and drink. While she fetched them, he stole her bible, which he later sold for three shillings to a maid of John Downings, who lived at Heath Forge, near Babb's house.

When he was apprehended, he fiercely denied stealing the bible "*wishing his hands might rot off if it were true*" (Illingworth 1677).

According to Illingworth, within a few days Duncalf began to experience violent trembling and he feared he had an ague (fever). His flesh began to look black at the wrists of his hands. The flesh then began to rise in great lumps at his wrists and knees.

In a pitiful state, he was discovered in a barn⁷, his shirt and doublet filled with lice and fleas. He was moved to lodgings at the home of John Bennet in Wall Heath.

⁷ The barn where Duncalf was discovered may have been in the vicinity of Stallings Lane, Kingswinford. According to Hitchmough (2010) there was a solitary farm, known as Duncalf's Barn in this area.

Soon, the lumps began to burst and seep. The flesh began to shrink from the bones at those places: *“and putrid matter came out and run abundantly causing exquisite pain and torment to this poor man and so offensive was the smell for several weeks”*.

To Illingworth, word of his condition spread, and he began to receive many visitors to view his state. *“thousands”* came to witness his punishment from God - some from afar as London and Paris. However, due to the stench the visitors *“were not able to abide in the room with him, nor stand near without the door except they had herbs or other things at their mouths and noses to smell to”*.

By May 8th both his legs had fallen off at the knees and his right hand was hanging by a piece of ligament; with a little touch of a knife the hand was taken off. The other hand was described as being black as a shoe and hard and rough and hung on for some time until he requested it be cut off. His flesh began to waste and his spirits to fail. He died on June 21st repenting his sins and asking God to forgive him.

The problems with such retrospective diagnosis⁸ are apparent: relying on second hand - and less than objective - information from over three hundred years ago and no tissue to allow detailed investigation. However, many of Duncalf's symptoms do appear to be consistent with Necrotising Fasciitis, a streptococcal infection popularly known as a flesh-eating

⁸ Retrospective Diagnosis: *“a procedure aiming to identify an individual case of illness or a disease in history by a modern name or diagnostic category still unknown to the physicians of the time”* (p141, Karenberg 2009).

disease in which copious amount of foul-smelling pus are typically produced.

This condition was first described by the ancient Greek physician Hippocrates (circa 500 BC), when he wrote:

Sometimes a very small wound broke out and if such an accident was neglected great inflammation took place. In most of them the abscess ended in suppuration and there was great failing off of the flesh, tendons and bones; and the defluxion which seated in the parts was not like pus, but a sort of putrefaction and the running was large and of various characters. About the head these things were accompanied by falling off of the hairs of the head and chin; the bones were laid bare and separated and there were excessive running; and these symptoms happened in fevers and without fevers (Adams 1785; Descamps et al 1994).

It was described in the late eighteenth century by Claude Pouteau, chief surgeon in the Hotel Dieu in Lyon in 1783. During this time, it was described by many names: *malignant ulcer; gangrenous ulcer; phagedenis ulcer; putrid ulcer* and *phagedena gangraenosa* (Blackadder 1818). In the eighteenth and nineteenth centuries it was referred to as *hospital gangrene* by British Naval surgeons (Travers 1824). The disease was recorded in the Gendarmerie Hospital at Brussels following the battle of Waterloo in 1814 (Travers 1824) and Florence Nightingale noted eighty cases in one month at Scutari barrack hospital during the Crimean war (McDonald 2010). The disease was also well known to the surgeons in the American Civil War, and the Confederate Army surgeon Joseph Jones is credited with providing the first clear investigation and characterization of hospital gangrene (Jones

1871). In 1952, the title “*necrotizing fasciitis*” was introduced (Wilson 1952).

Today, treatment includes antibiotics, surgical debridement (removal of skin, tissue, and muscle), and, in extreme cases, amputation. However, mortality rates are high, and patients can die days or weeks after the infection, (Lingaraj et al 2010; Sadasivan et al 2013).

Necrotising Fasciitis results when puncture wounds or lacerations (including incisions resulting from surgery), become contaminated (Lambade et al 2012; Sadasivan et al 2013). While it is unknown whether Duncalf had suffered any lacerations, when found in the barn he was dirty, and his clothes infested with lice and fleas. Thus, infected flea bites could have resulted in the infection (Puvanendran et al 2009).

The person experiences intense pain; feels extremely ill and develops a high fever. The affected tissue becomes red, hot, and swollen; rapidly becoming discoloured and turning violet. It often accompanied by the development of large fluid-filled blisters. The fluid from these blisters is brown, watery, and can be foul smelling, (at this stage, the tissue - which is dying - is undergoing rapid and progressive liquefaction), and tissue such as muscles and tendons are visible. As the tissue dies the nerves stop working and the area loses sensation. Eventually the dead tissue turns black as gangrene sets in (Lambade et al 2012; Sadasivan et al 2013).

Without treatment death is certain.

Duncalf may have suffered a rare complication of Necrotising Fasciitis known as multi-focal: it manifested in

more than one part of his body, in this case his limbs. (Lee et al 2016).

Given the horrific symptoms of such a condition, and with no other explanations for its cause, it is not surprising that its genesis was attributed to God.

A similar case, but with less details of the symptoms, is described in A circumstantial and authentic account of the memorable case of Richard Parsons, as transmitted in a letter from William Dallaway, Esq.; High Sheriff of Gloucestershire, to his friend in London. (p191 *The Annual Register* 1766). Richard Parsons, during a crooked game of cards declared: ‘*that he might never enter the kingdom of heaven, and that his flesh might rot upon his bones, if [the cards] were not fix in game.*’ (p.191). the next morning Parsons complained of a bad pain in his leg, which increased in intensity. There was also an appearance of a swelling, and afterwards the colour changed to that of a “*mortified slate.*”

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Scapegoat! **Foreigners and Disease in the Nineteenth Century** **Industrial Black Country**

During national epidemics and international pandemics, there has been a constant, albeit unfortunate, consequence: the search - or even a need - for a scapegoat to blame. All too frequently a minority or immigrant group. To Ginzburg (1990): “*the prodigious trauma of great pestilences intensified the search for a scapegoat on which fears, hatreds and tension of all kind could be discharged*” (p.124). To Nelkin and Gilman (1988): “*Blaming has always been a means to make mysterious and devastating diseases comprehensible and therefore possibly controllable*” (p.377).

During the Black Death (1347–1351) violence was unleashed upon Jewish people across Europe: men, women and children were eradicated - locked in synagogues or rounded up and burnt or drowned based on the believe they had poisoned wells and caused the plague (Cohn 2012).

With the appearance of syphilis in Europe during the fifteenth century rival nations blamed each other as the originators of the disease. This is evident by the range of alternative names: the French called it the *Neapolitan disease*, *the disease of Naples*, *the Spanish disease* or *the Castilian sickness*; the English and Italians: *the French disease*, *the Gallic disease*, *the French evil*, *the Morbus Gallicus* or *the French pox*; the Germans: *the French evil*; the Russians: *the Polish disease*; the Polish and the Persians: *the Turkish disease*; the Turkish: *the Christian disease*; the Tahitians: *the British disease*; India: *the Portuguese disease*; in Japan: *the Chinese*

pox, the Chinese Ulcer or the Canton Rash and the Persian fire (Clough 1993; Frith 2012; Rothschild, 2005).

During the twentieth century homosexual men were the focus of blame for Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) (Cohn 2012).

The heavy industrialised areas of Staffordshire and Worcestershire, known collectively as the Black Country⁹ (today comprising the boroughs of Dudley, Sandwell, Wolverhampton, and Walsall) were not immune to this; especially during the nineteenth century when dire living conditions were the norm for the majority of the area's population and contributed to the spread of disease.

One group, in particular, who were forced to endure not only these conditions. but also loathing as the carriers of Typhus, were the Irish.

Typhus (caused by the bacteria *Rickettsia prowazekii*) is carried in the faeces of body lice (*Pediculus humanus*), which live and breed in dirty clothing and bedding. Humans become infected when bite wounds of the lice are scratched, and the faeces enters the wounds; by inhaling or ingesting the dried louse faeces or by rubbing the faeces into the eye (Cowan 2016). Thus, victims do not necessarily have to be poor or lousy to contract it: doctors and nurses engaged in its treatment were at high risk. The symptoms occur frequently soon after infection: a severe headache and fever; a rash of dark spots

⁹ It was termed the "Black Country" due to the layer of soot which covered the area.

appearing on the chest and spreading to the arms, hands, legs and feet; coughing; severe muscular pain; stupor; delirium and sensitivity to light. It can lead to blood vessel blockages and death (Cowan 2016).

A major Typhus epidemic occurred during the Great Irish Potato Famine (1845-1850) and it was carried to England by Irish immigrants, becoming known as *Irish Fever* (Cowan 2016). Those who arrived in the Black Country inhabited the poorest areas, such as Caribee Island in Wolverhampton. *The Birmingham Daily Post*, June 4th, 1866, described the area:

With Caribee Island ... the evil condition of the place arises largely from construction. It is a labyrinth of narrow tortuous courts in which every scrap of space has been built upon. There is no single passage through it for the free circulation of air: its alleys are as intricate as the wards of some gigantic key. Even where there has been a spare corner for ash heap, privy, or what not, some wretched building has been run-up and let out for a small consideration weekly. Some of the houses have one room upstairs as well as one down – each room being six or seven feet square – the upper one reached by a kind of ladder, often out of repair, underneath which is the pantry of the establishment. Others have one floor only, and that not partitioned, excepting by a curtain. In one place a couple of houses have come down, and the space has been used as a refuse heap, urinal and filth receptacle generally for two or three courts. Here the drains are ill made and out of repair, while the house are damp and odorous with the urinary deposits near them. The rent for these buildings ranges from two to four shillings a week.

And of the unfortunate people inhabiting it? John Mouchet Baynham, a surgeon of Birmingham observed:

The Irish ... are the very pests of society. They generate contagion, more and worse cases of fever, and other infectious diseases of a spontaneous origin, occur among them, and the acute diseases of which they become the subjects are fatal in a much larger proportion, than among the English; they are chiefly liable to fever. The reason of this fatality is not the poverty of the subject, but the want of ventilation and cleanliness of person. ... they are never washed, so that their skin becomes coated with filth. (Selection of Reports and Papers 1836).

Police Constable Henry Smitheman of Dudley described the Irish inhabitants of lodging houses as “dirty” (p.39 Lee 1852) – but it should be noted that he also reported there were “black” inhabitants (p.39 Lee 1852), but no vehemence was attached. This may be due to there being no mass immigration into the area by Afro-Caribbean or Asian people until the mid-twentieth century.

The sentiment that the inhabitants were to blame for the conditions they were living in is undisguised. These living conditions were common across the many slum areas of the Black Country as was Typhus. In 1871, Dudley suffered another outbreak. In a report on the outbreak, it was observed:

[Typhus] is a constant cause of disease and death in Dudley: at the time of my inspection typhus was epidemic and many well-marked cases were seen, which presented the ordinary characteristic rash and symptoms. It was impossible to form an accurate estimate of the number of persons who

have recently been attacked, but throughout the borough there have been since July last at least 500 cases of "fever" one medical officer alone have attended 300 cases, of which the majority were typhus, fresh cases, and these exclusively of the same type, were ascertained to be daily occurring, whole households being attacked. The chief conditions under which typhus is known to prevail and to spread are, over-crowding, destitution, and filth... It is among the poor and those residing in the worst parts of Dudley that the disease has mainly prevailed... one woman was found in a room, the only article of furniture in which consisted of a rickety wooden bedstead, across which was stretched a piece of sacking; on this she lay dying, being covered only by a few dirty tattered clothes and rags. Many of the patients shared their wretched beds, which in several instances, consisted in a heap of shavings full of vermin with others who had not yet succumbed (p.7, Thorne 1871).

In 1832 and 1848 the towns and villages of the Black Country were severely hit by Cholera¹⁰, the spread of the disease exacerbated by the poor living conditions.

The Cholera bacterium *Vibrio Cholerae* is transmitted by drinking infected water; consuming food infected by tainted water; via contact with items tainted by victims' faeces (bedding and clothing) and by insects and mice and rats. Once infected, the victim experiences violent diarrhoea (producing between ten and twenty litres a day), cramps and vomiting; this leads to rapid - and severe - dehydration. As blood pressure

¹⁰ Known as *Asiatic Cholera*, having originated in the Ganges Delta in India, it was also known as *Spasmodic Cholera*; *Epidemic Cholera*; *Cholera Asphyxia*; *Cholera Asphyxis* and *Cholera Morbus*.

drops, leading to hypotension, the blood thickens and circulation is inhibited, depriving the organs of oxygen resulting in cyanosis (a blue hue to victims' skin). Death can occur within a few hours of becoming ill (Harris et al 2012; Thomas 2015).

While the first major outbreak in the Black Country occurred in Tipton during the first week of July 1832, isolated cases first appeared in Dudley in March 1832 among a group of travelling German broom-sellers living in an overcrowded lodging house in Queens Cross. Two males: a thirty-year-old and a sixteen-year-old died, but a girl recovered and survived.

John Roberts, a Surgeon, made his report to the Central Board of Health, which also appeared in *The Wolverhampton Chronicle* (4th April 1832):

Dudley, March 31, 1832.

Sir: - I consider it my duty to inform you that we had within the last few days in this town, three decided cases of Cholera Asphyxis, two of which have proved fatal. The disease appeared among a number of poor itinerant Germans, who were found congregated in a filthy densely crowded lodging house. The survivors have been removed from the town, and from the strict precautionary measures which have been adopted, we hope the frightful malady will make no further progress. I remain, Sir,

*Yr, very obt, servant
John Roberts.*

However, fear of foreigners could also be exploited, and this occurred - somewhat ironically - as a result of attempts to curtail the spread of Smallpox.

Before its eradication Smallpox was one of the biggest killers in history. The Smallpox Variola Virus was transmitted via direct contact with an infected person or objects (including bedding and clothing), or through airborne droplets from coughing and sneezing. The symptoms began with fever, bodily aches and a feeling of general malaise. A rash appeared in the mouth and throat, then on the skin spreading from the face to the body. The rash developed into raised fluid filled pustules, which crusted over to form scabs. A person was infectious until the scabs were gone. These pustules eventually become pitted scars or pock marks on the survivor's skin resulting in severe scarring. While fatality rates could be up to thirty percent, strains such as Malignant and Haemorrhagic were always fatal (Hopkins 2002).

Following the success of Edward Jenner's vaccination (Jenner 1796), several Vaccination acts were passed by the government between 1840 and 1867 which made vaccination compulsory up to the age of 14 (Williams 1994). However, these acts produced a great deal of anti-vaccination feeling, which in some towns - such as Leicester in 1865 - lead to riots. This stemmed from the parents' belief that it was their right to decide what was best for their children and overriding the views of parents was an infringement of peoples' liberties and their right to choose, (Durbach 2013). A great deal of misinformation was also spread by the Anti-Vaccination movement which claimed that vaccinations were no protection against Smallpox; spread Syphilis and other diseases and were a direct cause of injury and death (Durbach 2004).

In early 1881, as a Smallpox epidemic raged in London, a vaccination scare began in Derbyshire. Rumours - possibly started by the anti-vaccination league - circulated that foreigners, American black doctors, or negro doctors, were being sent by Prime Minister William Gladstone to vaccinate all the children attending state schools (Durbach 2004). By May the rumours had reached the Black Country. On Saturday 14th May 1881, *The Dudley and District News* carried the following story:

VACCINATION SCARE AT DUDLEY

An extraordinary rumour reached Dudley on Thursday that "three black doctors" who had been to Tipton and Lower Gornal would arrive at the Board schools in the afternoon for the purpose of vaccinating the children. How this canard arose it is impossible to say, but it travelled from Gornal to Dudley, and created almost a great a furore here as it did there. It is true that at Gornal, the infuriated crowd smashed the windows of the school, and they were on the point of doing the same at Dudley. At Wolverhampton Street Board Schools a crowd of women, armed with pike helms, pokers and chair legs, made a hostile demonstration, and, although assured by Mr. Woodhouse, the schoolmaster, that no one would be allowed to interfere with the children, and that he had heard nothing of the "American blacks", they continued their threatening attitude, and refused to give the slightest heed to what he said. As a consequence the school had to be dismissed, which after all, was the simplest plan, for it convinced them of the absurdity of the report. At Stafford Street Board Schools, too, a similar crowd assembled, and gave free expression to their threats if their children were interfered with. Several hundreds of men, women and children gave a willing ear to all manner of ridiculous rumours, believing that a number of children had

died in Gornal as a result of the vaccination, that the schools presented a shocking sight, and that some of the teachers had fainted at what they saw. These and equally foolish reports were eagerly swallowed by the excited crowd, who were pacified only when the children left school. Tettenhall Street School had to be closed owing to a similar rumour, and the school attendance throughout the borough was materially affected by it. The scenes were renewed at several of the schools in the course of yesterday, and also at Coseley, Bilston, and other parts of the outlying district.

To the *County Express* (14th May 1881) opinions of the protestors included:

...as to whether the professional gentlemen, who were to perform the process of vaccination, were American or Zulus ... Other persons who were evidently well informed on the matter had discovered that the place where the lymph was to be injected was behind the right ear ... one or two affirmed that they had seen children who had undergone inoculation...

On the same day similar scenes occurred at schools at Brockmoor, Bank Street and Hill Street, Brierley Hill, where the parents refused to send their children to school for their afternoon lessons or for Monday lessons.

The Western Daily Press (Thursday 19th May 1881) reported that at a meeting of the Sedgley School Board it was disclosed parents had:

...rushed into the schools, burst the doors open, and seized their children, many of whom were injured by being

knocked down when effecting their escape from the schools. Three schools were now closed.

On 19th May, the West Bromwich School Board issued notices refuting the rumours reminding parents that if they kept their children away from school, they would be liable to prosecution (*The Lichfield Mercury*, Friday 20th May 1881), but there were problems on the horizon:

VACCINATION SCARE

Shortly after nine o'clock on Friday morning [20th May] it was rumoured in West Bromwich that the Government had issued an order ordering children in all elementary schools to be revaccinated, as the result of the alarming spread of smallpox in London. It was also stated that a number of "black doctors" had arrived in the town commissioned by the Government to perform the operations. Soon after the schools of the district had been opened a crowd of about 500 men and women surrounded the Ebenezer Board Schools, and demanded that the children should be immediately released, some stating that they would lynch the "black doctors" should they attempt to vaccinate their children. At the same time a similar scene was being enacted at Greet's Green Board Schools, where a still larger crowd had congregated, and were menacing the teachers. The doors were secured to prevent the entrance of the mob, upon which a number of women surrounded each of the windows and shook their fists at those inside, at the same time threatening them with violence should they detain their children for the "black doctors". Several windows were smashed. In the afternoon the rumour reached the upper part of West Bromwich, and Mayer's Green Board Schools were besieged with angry parents demanding their children. It was stated in the crowd that six "black doctors"

had been seen to enter the approach to the schools, and stimulated by this extraordinary assertion, about fifty women ran up the entrance to the schools and demanded their children. The school doors were made fast, and Mr. Perkins, master of the Queen-Street Boys' School was sent for. When the messenger arrived at Queen-street a very similar scene presented itself. The schools were surrounded by three hundred men and women, who asked that their children might be sent home. Unable to satisfy the mob, Mr. Perkins cleared the schools. Upon reaching Mayers' Green Schools Mr. Perkins found that the parents assembled had become so exasperated at the statements which were rife concerning the six "black doctors" that they had forced their way into the schools and were carrying off their screaming children. Several women fainted and for two hours considerable disturbance prevailed at most of the schools in the town and district. A large crowd also surrounded Christ Church Schools.

On Friday afternoon intense excitement existed in Wednesbury owing to a rumour being afloat that the "black doctors" had arrived in the town and proposed visiting the schools in order to vaccinate the children. Some of the parents believing the rumour, which rapidly spread, proceeded to the schools and demanded that their children should be given up to them, they at the same time remarking that they objected to have their offspring "cut to pieces by black men, Mr. Gladstone, or anyone else". Although they were informed that their children were in no danger, they were incredulous enough to believe that they were, and the excitement ultimately became so great that it was found necessary at the principal schools to dismiss the children and close the schools for the day.

At Dudley, Holly Hall, and Tipton on Friday, the vaccination scare continued. The schools were again surrounded by angry crowds of parents, who threatened

violence if their children were interfered with by “the blacks”. The greatest mischief in connection with the matter was that the examinations were just on, and it has spoiled the chances of good Government grants. (The Worcester Journal Saturday 21st May 1881)

The papers dismissed these claims as hoaxes and having no foundations while noting the want of intelligence displayed by the parents. *The Dudley and District News* (14th May 1881), however, gave vent to its spleen:

The whole thing is so ridiculously absurd that one could scarcely give it credence had it not actually taken place. How in the name of common sense people swallowed such tales is a riddle, and yet working men, some of whom might in other circumstances have been deemed intelligent, were heard to declare that there must be something in it, for so-and-so had told them, and they could depend upon what he said, forgetting that their informant had been simply engaged in circulating the unfounded reports. Some individuals must evidently have been at work drawing upon their imaginations for their facts, for scenes of a nature calculated to inflame ignorant people were described as taking place, and these descriptions were believed as readily as though they had been official bulletins issued from time to time to inform the public of the state of some illustrious patient. We were certainly not prepared for such a state of things in Dudley or elsewhere, but after witnessing the credulity manifested on Thursday we are readily to exclaim, with the individual who had been listening to some extraordinary statement “Efter that, ony thing.

Without a doubt, emphasising the Doctors as “*Black*” and “*American*” exacerbated the situation.

Sadly, as has been demonstrated, blaming outsiders for outbreaks of disease is a recurring theme throughout history. It can be argued that in the past these occurrences resulted from a lack of understanding regarding how diseases emerge and spread. However, in the present day it is common knowledge that diseases are caused by pathogens and the myriad ways by which they spread and that strangers are not the sole cause. Or is it? The *Express and Star* 27th March 2020 carried the following article:

Chinese people living in the West Midlands have been targeted over corona virus.

A reflection of what has been happening internationally; these are responses to the pandemic caused by the strain of Corona Virus known as Covid-19, which originated in the wet markets of Wuhan in China where live meat and fish are sold (Shereen et al 2020).

It could be posited that targeting members of particular groups is a way of relieving the frustration felt by those disempowered by the threat of a disease, or, it is sadly, a good example of Jean-Baptiste Alphonse Karr's observation: "*The more things change, the more they continue to be the same thing*".

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**Doctor Norris of Stourbridge:
The John Snow of the Midlands.**

In 1848 Dr William Francis Soltau of Plymouth reported upon an outbreak of cholera. A milkman's wife had died from cholera; within twenty-four hours between thirty and forty of his customers had become sick with cholera. It was discovered the milk he was selling had been stored in an open pan in a room beneath the one where his wife had died. The floor of the room was rotten and the victim's discharges of diarrhoea and vomit had dripped down and contaminated the milk. Based upon this, Dr William Lascelles Norris of Stourbridge concluded that cholera could be transmitted through liquids. He wrote a report detailing his conclusions for the members of the General Board of Health who were responsible the implementation of the Public Health Act 1848 which aimed to improve the sanitary condition of towns and cities.

Dr Thomas Hunt (1850) in *The Provincial Medical and Surgical Journal* observed:

The most curiously interesting point is, that without being at all aware that Dr Snow had published a pamphlet on the cholera, and without ever having heard of the original and (to say the very least of it) plausible theory; of that most esteemed author, Dr Norris adopts, to a great extent, the same views and reveals a history which, if the facts can be substantiated, throws the greatest credit on the theory of the propagation of cholera era, by the introduction of choleraic discharges of one person into the stomach of another (p.99-100)

In 1849, the English physician John Snow (1813-1858) had published his essay *On the Mode of Communication of Cholera*. In it, he refuted the - commonly held - belief that cholera was a disease transmitted through Miasma, or poisoned air, postulating that it was a disease spread by water contaminated by an unidentified germ cell.

While Dr Norris's discovery was eclipsed by that of Dr Snow - who is still the better known - he made major contributions to the field of medicine.

William Norris was born in 1792, the eldest of the four sons of William Norris, Esq. of Enville, Stourbridge. He attended Stourbridge Grammar School and later attended St. Bartholomew's Hospital, London, where he studied under the medical luminaries: the surgeon John Abernethy (1764 -1831); the medic Henry Clutterbuck (1767-1856); the surgeon Sir Ludford Harvey (1759-1829) and the surgeon John Painter Vincent (1776-1852). He then undertook further training at the London Infirmary and Edinburgh University and received his M.D. from the University of St. Andrew's in 1823. He returned to Stourbridge and set up practice, becoming physician for the Stourbridge Dispensary, serving on the Sanitary Association for Stourbridge and acting as a surgeon for Kingswinford.

He wrote a number of articles for learned medical journals based on his cases: the successful treatment of Thomas Price, a cab driver at the Talbot Hotel, Stourbridge, for an abscess of the liver (Norris 1846); his treatment of Thomas Smith, 19, who suffered a hernia of the diaphragm (Norris 1837); a fatal case of melanosis of the lungs at Oldswinford (Norris 1849b) and his self-treatment of a bowel problem (Norris 1868).

One of his articles - which was reprinted in Europe and the United States - detailed the accidental poisoning of nearly a thousand people in the towns of Stourbridge and Kidderminster and in neighbouring villages, of whom he treated around one hundred and twenty (Norris 1849a).

The servant of a Miller (who also had a paper making business) accidentally mixed thirty pounds of acetate of lead (used for the bleaching of paper), with between sixty and eighty sacks of flour, instead of alum. Alum is an aluminium-based compound, which was used to make bread whiter and heavier. This led to malnutrition and bowel problems such as constipation or chronic diarrhoea; the latter often proving fatal for children (Goodman 2014).

Those who ate the bread complained of a peculiar taste. Their tongues became covered with a darkish cream-coloured mucus and their gums were swollen, with a blue tinge which extended around the inside of the mouth. There was excessive salivation, digestive problems, vomiting, violent painful abdominal spasms, and several cases proved fatal. Norris also confessed to having unknowingly eaten some of the poisoned bread but to have only been mildly affected.

Norris was well acquainted with lead poisoning and recognized the appearance of those afflicted:

In this neighbourhood we have numerous glass houses, and many hundreds of men are constantly employed in the fumes of lead, and we know them by a sallow, thin, unhealthy aspect, with soft and flabby muscles (p.206, Norris 1849a).

His most famous contribution was to the study of melanoma, a skin cancer that can spread to other organs in the body. His papers: *Case of Fungoid Disease* (1820) and *Eight Cases of Melanosis* (1857) made significant contributions to its understanding. In the *Case of Fungoid Disease*, Norris followed the progress of a 59-year-old male patient with melanoma for over three years, documenting his disease, its progression and making detailed anatomical observations upon his autopsy. He made several seminal observations regarding the condition which continue to interest present day researchers of melanoma. Including the following:

It is remarkable that this gentleman's father, about thirty years ago, died of a similar disease. A surgeon of this town attended him, and he informed me that a number of small tumours appeared between the shoulders, which were severely cauterized, soon after which death took place. This tumour, I have remarked, originated in a mole, and it will be worth mentioning, that not only my patient and his children had many moles on various parts of their bodies, but also his own father and brothers had many of them. The youngest son has one of these marks exactly in the same place where the disease in his father first manifested itself. These facts, together with a case that has come under my notice, rather similar, would incline me to believe that this disease is hereditary (p.565, Norris 1829).

Norris was the first to note how some melanomas could be inherited - this was fifty years before Gregor Johann Mendel presented his work on inheritance (Hecht 1989). It was also the first description of *Familial Atypical Multiple Mole Melanoma Syndrome*: an inherited condition characterized by the presence of multiple moles. Atypical moles, which are called dysplastic

nevi, are benign - but are associated with an increased risk of melanoma (Rebecca et al 2012). In his *Eight Cases of Melanosis* (1857) his findings included: proposing a relationship between melanoma and environmental factors such as industrial pollution; observing that most of his patients had pale complexions and light-coloured hair and that melanoma could spread to other organs. To control recurrence, he advocated cutting out the tumour and surrounding unaffected skin to prevent regrowth. All are accepted today (Rebecca et al 2012).

In June 1823, he married Anne Lascelles, at Abbey Church, Malvern; they had three sons and two daughters. His eldest son, John, became a surgeon at Brierley Hill. Dr. Norris died from hemiplegia and apoplexy (i.e., a stroke), at his home in Stourbridge on March 23rd, 1877, having served the people of Stourbridge for sixty years. He never became as famous as Dr. Snow and has been forgotten in Stourbridge. However, textbooks and studies on melanoma and its history all pay tribute to his work - which is not a bad legacy.

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The Hazards of Hop Picking

During the nineteenth- and early-to-mid twentieth-centuries, thousands of people (men, women, and children), from the Black Country and Birmingham travelled to Herefordshire and Worcestershire every year for the hop picking season, usually six weeks in September and October. Hops are the flowers of the hop plant *Humulus lupulus*. They are used primarily as a flavouring in the brewing of beer. In the West Midlands, the hop yards of Herefordshire and Worcestershire produced more than half of the hops grown in the United Kingdom. Before mechanized farming, hop picking was labour intensive and required a significantly larger number of people than were available locally. This represented an annual working holiday for Black Country people, providing an opportunity to leave their industrial homelands and earn money in the open countryside (Homer 2016).

However, although hop-picking may have represented a break from the pollution of the Black Country, it should not be assumed it was a halcyon idyll. It was a working holiday, and it was not without its hazards. Working with hops could result in: *Hop Dermatitis* (characterized by itching, redness and a rash) (Smithies 1929; Cookson and Lawton 1953); *Hopper's Eye*: a form of severe conjunctivitis (Adams 1893; Smithies 1929) and *Hopper's Gout* (characterized by pain, swelling, and limitation of movement) (Smithies 1929; Cookson and Lawton 1953). The insanitary conditions the pickers lived in presented a number of risks to health: crowded into barns, stables and pigsties or in tents or flimsy shelters known as barracks with inadequate sanitation and little clean water (Stratton 1883; Greenwood 1927).

Poor water quality led to an outbreak of Cholera¹¹ killing 43 hop-pickers at East Farleigh, Maidstone, Kent, in September 1849. In the Black Country, in 1850, Dr William Norris of Stourbridge¹² reported that several women and children had become sick with Cholera in Lye Waste, an area of extreme poverty:

... where many of the cottages are built with clay, on a soft clay foundation, and have generally only one low sleeping apartment four yards square, six or eight sleeping in the same room, and most frequently without a back door or window, with very little drainage, the disease made fearful ravages, in a circuit of about four hundred yards, containing eight or nine hundred inhabitants. From this village many hundreds of women and children in the autumn go into Herefordshire hop-picking. (p.100, Hunt 1850)¹³

¹¹ Cholera is an infection of the small intestine by the bacterium *Vibrio cholerae*. The classic symptoms include: large amounts of watery diarrhoea, vomiting and muscle cramps may also occur. The Diarrhoea can be so severe that it can lead to severe dehydration and electrolyte imbalance, resulting in sunken eyes, cold skin, decreased skin elasticity, and wrinkling of the hands and feet. Dehydration can cause the skin to turn bluish. Symptoms start two hours to five days after exposure. Symptoms range from none, to mild, to severe. It is spread via water and human faeces. (Kotar and Gessler, J. E. 2014)

¹² See p.43 for more information on Dr. William Norris.

¹³ Noake in his *The Rambler in Worcestershire* (1854) encountered a group of Lye-wasters returning from hop-picking: “*On the high road between Stourbridge and Kidderminster, on my return to the latter place, I fell in with a few cart-loads of Lye-Wasters returning home to the neighbourhood of Stourbridge after their annual exodus to the hop-picking district. The numbers wedged into the space of each small cart averaged about twenty-five — women and children; the men walking, and by their sticks and shoutings urging on the wretched jaded brutes of horses, which attempted, though at fearful*

In 1893, two women living at Chapel Street, Tividale, became ill with Cholera upon returning from Hop Picking (*Staffordshire Advertiser*, 30th September).

In 1866, the *Society for the Employment and Improved Lodging of Hop-was* founded and sent out circulars to farmers and landowners recommending improvements. These included 4ft square floor space per person, provision of metal or wooden beds, mattresses, and waterproof tents (Stratton 1883). By the turn of the century district councils of hop-picking areas were attempting to enforce by-laws governing the accommodation and living conditions of hop-pickers. For example: *The Annual Report of the Medical Officer of Health of the Bromyard, Dore, Hereford, Ledbury, Leominster, And Weobley Rural Districts, and of the Bromyard Urban District, 1908* (1909) laid out the guidelines (p.114-115):

HOP-PICKERS.

The following By-laws for securing the decent lodging and accommodation of persons engaged in hop-picking or in the picking of fruit and vegetables in the rural districts of Leominster were allowed by the Local Government Board on the 15th May, 1908.

1. Throughout these By-laws the expression "the Council" means the Rural District Council of Leominster.

odds, to drag on their dirty, exulting, rollicking, pitiless cargoes. A couple of days at least must be consumed in their journey homo from the neighbourhood of Worcester." (p.251)

2. Every person providing any tent, shed, barn, hopper-house, building, or other habitation for the lodging of persons engaged in hop-picking or in the picking of fruit and vegetables, and not being a building ordinarily occupied as a dwelling house, or for human habitation, shall comply with the following conditions:

(i.) He shall cause such habitation to be so constructed and maintained that it may be clean, dry, and weatherproof at all times when used for the lodging of such persons.

(ii.) He shall cause such habitation in every case to be properly ventilated and sufficiently lighted.

(iii.) He shall not cause or allow a greater number of adult persons to be received into any such habitation, or any room therein, at any one time, for the purpose of sleeping therein, than may be compatible with the allowance of sixteen square feet at the least of available floor space in respect of each adult person. For the purpose of the foregoing provision two children under ten years of age shall be counted as one adult person.

(iv.) He shall cause every room or part of such habitation, which may be appropriated for the reception of adult persons other than a husband and wife to be so constructed as to secure adequate privacy to persons of different sexes.

(v.) He shall provide a sufficient supply of wood or other suitable material for making fires for the cooking of food, and the drying of clothes and other articles.

(vi.) He shall (where the same is not otherwise readily available) provide in or upon or in connexion with such habitation, or in some suitable place readily accessible therefrom, such a supply of good and wholesome water as will, at all times, suffice for the reasonable requirements, whether for drinking, cooking, or washing, of the several persons received and lodged in such habitation.

(vii.) He shall provide for every person received and lodged in such habitation a sufficient supply of clean, dry straw, or other clean, dry, and suitable bedding.

He shall cause such straw or other bedding to be changed or properly cleansed, from time to time, as often as occasion may require.

(viii.) He shall cause every part of the interior of such habitation, and of any cooking-house, privy, or other premises in connexion therewith, to be thoroughly cleansed immediately before any person shall be received to lodge therein, and from time to time, as occasion may require, while the lodgers are retained therein. He shall cause the walls and ceilings of every room constructed of brick, stone, iron, concrete, wood, earth, or plaster to be well and sufficiently lime-washed at least once in every year, and he shall from time to time cause all accumulations or deposits of filth or any offensive or noxious matter to be removed from such habitation or premises, and from the land immediately surrounding such habitation or premises, or adjoining thereto.

(ix.) He shall provide, in a suitable position in connexion with such habitation, sufficient closet accommodation for the separate use of each sex.

Penalties.

3. Every person who shall offend against any of the foregoing By-laws shall be liable for every such offence to a penalty of five pounds, and in the case of a continuing offence to a further penalty of forty shillings for each day after written notice of the offence from the Council.

Despite the threat of penalties, the guidelines were ignored by some.

At the end of October 1909 there was an outbreak of Typhoid Fever¹⁴ among people in Dudley, Rowley Regis, Darlaston, Lye, and Wollescote. Upon investigation by the authorities, it was discovered that despite the sufferers belonging: “...almost entirely to the lowest class of the casual labouring population, and the conditions under which they were living as regards overcrowding and unwholesome surroundings were such as would facilitate the spread of the fever to a marked degree.”¹⁵ (p.3, Wheaton 1909), all the infected had been hop-picking in Worcestershire.

¹⁴ Typhoid fever is a highly contagious water-borne infection caused by the bacterium *Salmonella typhi* that spreads throughout the body causing serious complications and death. An infected person can spread the bacteria out of their body via their faeces and urine. Symptoms include a high temperature, headache, cough, constipation and a rash. Complications include internal bleeding and peritonitis (Adler and Mara 2015)

¹⁵ Typhoid was endemic in the Black Country. For example: Wheaton 1895.

All the cases (with one exception) had stayed at one of three farms: Moor Farm, Pigeon House Farm and Great House Farm.

At Moor Farm, it was discovered, outside a wooden building: “*a heap of lime mixed with excrement and filth about 10 yards distant from the well*” (p.6, Wheaton 1909). In the loft of the building, accessible by a flight of wooden steps, 85 women and children had been accommodated. Due to the only access being via the wooden steps it was necessary to provide chamber pots in the loft for use after dark and the heap was composed of their contents, which they had thrown from the door of the loft to the ground below. The privies, which were only holes in the ground, were filled with excrement. In wet weather this filth would be washed over the yard and down the side of the pump into the well (Wheaton 1909).

It was also discovered that a person from Dudley who had previously suffered from Typhoid was present. In the Black Country, it was the custom for those who had suffered from illness during the year to go away hop-picking in the autumn, with the idea that the change of air would help them recuperate and prepare for winter (Wheaton 1909). This person could also have been a source of infection.

At Pigeon House and Great House Farms all the stables, cowsheds, pig styes, and other buildings were cleared out, the animals turned out into the fields, and their places taken by the hop-pickers (Wheaton 1909).

At Pigeon House Farm it was also found that water from a well supplying a pump had been polluted by the rainfall

washing excreta from the surface into the well. (Wheaton 1909).

The water supply for the pickers at Great House was provided from a covered well situated in a cowshed, from where it was pumped and conveyed along the floor in a pipe to discharge into a small stone trough in the yard. The cowshed was occupied in the season by pickers, who would have been lying on the top of the well. The floor of the shed was made of cobble stones and bricks, so it was probable that liquid manure from the cows soaked into the ground directly over the well. There were also insufficient privies for the pickers: “*two wooden structures placed over holes in the ground*” (p.9), and a pump which served the main house was situated near a privy pit “*filled with liquid filth*” (p.9) (Wheaton 1909).

The council forced improvements to the living conditions.

Problems with accommodation for hop-pickers continued, but by the 1950's a combination of: the introduction of hop picking machines; the standardization of school holidays formalized in a number of Education Acts (school holidays were frequently postponed in the Black Country until the end of September to accommodate the hop picking); the devastating effect of the hop disease, *Verticillium Wilt* and competition from foreign hops largely halted the practice of mass hop-picking (Filmer 2011).

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Did Black Country Chemists Aid and Abet Murderers?

The actor in the film on a social media platform dances around portraying a Black Country pharmacist while the logo claims: “*Victorian Pharmacists after a long day of selling lethal doses of arsenic to angry housewives*”. The inference is that Black Country pharmacists sold arsenic to anyone without any control, and therefore were complicit in murder.

So - is this an accurate portrait?

Arsenic (Arsenic trioxide) is a poison that can be lethal. The symptoms of arsenic poisoning (arsenicosis), include: abdominal pain, nausea and vomiting, diarrhoea, abnormal heart rhythm, muscle cramps, tingling of fingers and toes and in sufficient quantity: death (Hughes et al 2011). In the nineteenth century it was used extensively domestically and industrially: in the production of flypapers; poisoning vermin such as rats and mice; it was used as a colouring agent in: curtains, furniture fabrics, lampshades, ornaments, artificial flowers, wallpaper, clothing, candles, carpets, linoleum, toys, and books; food and tobacco were wrapped in coverings tinted with arsenic. It was also used in farming, medicine, and taxidermy among other trades (Whorton 2011). It was used most famously by murderers such as Mary Ann Cotton (who poisoned four husbands and eight children); Florence Maybrick (her husband), and Madeline Smith (her lover), mainly because it was colourless, odourless, tasteless, soluble in water and fatal in small doses (Vincent 2020).

Before 1851, there were no legal restrictions on the sale of arsenic, other than age. Arsenic and other poisons could be

bought by any adult and its vendors were not restricted to pharmacists: grocers and hardware shops among others could freely sell it.

An illustration of the absence of controls can be seen in the case of Susannah Perry of Garretts Lane, Rowley Regis, in 1838. She was accused - and later cleared - of murdering her husband Samuel Perry, a Nailer, using arsenic. She had purchased the arsenic from a Surgeon and druggist, James William Stanley Lawton:

About six or seven weeks ago [Lawton] sold it himself to a woman who had on a yellowish straw bonnet, and a light cotton gown. A little girl, about twelve or thirteen years of age, first came and asked for two-pennyworth of arsenic for her mother to use in her business of cleaning bonnets. [Lawton] asked her where her mother lived and she said "Just out of Rowley." Witness then told her she had better tell her mother to come for it herself. In about half an hour the woman came for it, as he had before described, and said she used it in her business for bonnet cleaning. She said she lived close to Rowley, and he then gave her the arsenic wrapped [in blue and white paper]. He wrote first the word "Poison" on the blue paper and then the words "Arsenic-Poison." on the white paper outside. He gave it to the woman, and leaving looked at the prisoner, Susannah Perry, he believed she is the same person to whom he delivered the arsenic. (Wolverhampton Chronicle and Staffordshire Advertiser, 8th August 1838).

But this absence does not mean the chemists would still sell arsenic if they suspected something was amiss: one Monday evening in November 1848, Mr. George Cooper, a Surgeon of Snow Hill, Wolverhampton, was urgently summoned to attend a house in Hallett's row by a woman

whose husband was reported to have taken poison. At first, the man strenuously denied he had, but the following morning he confessed he had bought two pennyworths of arsenic at Mr. John Hamp's Chemist and Druggist Shop in Lichfield Street, the previous Friday. He had put the whole amount into a cake his wife had made, which he ate on the Monday evening. However, as he was not displaying any symptoms of arsenicosis, Mr. Cooper made further enquiries. The *Wolverhampton Chronicle and Staffordshire Advertiser* (8th November 1848) reported his findings:

Mr. Hemp [sic], suspecting the man's intention, had served him with cream of tartar instead of arsenic, and thus disappointed the would-be suicide, who, there is no doubt was suffering more from fright than anything else, when Mr. Cooper was called in.

However, there was increasing public concern over accidental and deliberate arsenic poisonings; for example, the *Provincial Medical and Surgical Journal* (July 1845), reported the following case (p.453-4):

A lady having occasion to go to a closet in her dining-room for an article she required, left the door unlocked for a few seconds until she should have replaced the article. Her back had been scarcely turned upon the door of the closet, before she missed her infant son, a remarkably fine and healthy child, twenty months old, who the instant previous had been playing on the carpet. On turning to the closet, she was horrified at seeing the child mounted on a step, and eating from a box a paste kept for the purpose of destroying mice, the composition of which she did not then know. She succeeded in forcing with her finger a considerable portion of the material

from his mouth, and administered a dose of ipecacuanha wine¹⁶.

The child vomited and by 6.00 p.m. it was believed he was over the worst. But by 10.00 he had relapsed:

About ten o'clock some gruel was administered to him, which he soon rejected without any admixture. Soon after this he got worse; the extremities and face became cold; lips livid; eyes sunk, the pupils fixed and rather dilated; pulse scarcely perceptible; respiration feeble, accompanied with sighing. After lying about half an hour in this condition, he expired without a struggle at half-past eleven, nearly eight hours subsequent to the accident.

The paste proved to be a mixture of honey, flour, and arsenic.

The Wolverhampton Chronicle and Staffordshire Advertiser (4th May 1842), highlighted the need for controls on the sale of arsenic following a very sinister case:

A recent case at Leicester plainly proves the necessity of preventing the present careless mode of selling poisons; two girls having, with scarcely any inquiry from the chemist, obtained a pennyworth of arsenic from him, and poisoned an old woman who had offended them. Had it been necessary to produce even a note from a housekeeper to warrant the delivery of the arsenic the poisoning could not have been effected. Surely an easy remedy to prevent these dreadful occurrences might devised.

¹⁶ Ipecacuanha Wine was an emetic used to promote vomiting.

The Wolverhampton Chronicle and Staffordshire Advertiser (15th March 1848) reported on a tragic suicide:

An inquest was on Saturday last commenced at the Earl Grey public house, in this town, and subsequently by adjournment on Monday last, before George Hichliffe, Esq. coroner (officiating for T.M. Phillips, Esq.), on the body of Phæbe Whitehouse, a young woman about twenty years of age, who destroyed herself on Wednesday last by taking arsenic. It appeared by the evidence that deceased up to Monday had been living as servant with Mr. Hyde¹⁷, who keeps a public house in Coseley-road, Bilston. On that day she left her place, in consequence of being pregnant, and went to her brother's, an engineer, residing at Princes End, where she slept. The next day she went to the house of a female married cousin of the name of Paget, residing in Wolverhampton, but did not eat anything, and went to bed about nine o'clock. About eleven o'clock she was sick, when she attributed to some cold meat which she had eaten in the course of the day. Her cousin slept with her, and stated that the deceased dozed until nearly three o'clock, when she felt poorly and sick, and asked for some water. Witness added that, observing an alteration in her, she asked her husband to fetch Mr. Coleman, the surgeon, but that death ensued before his return. Some arsenic and some sugar were found in the pocket of deceased, and on a post mortem examination arsenic was discovered in her stomach, which Mr. Coleman was of opinion had been taken with sugar after she went to bed, and had caused her death. No evidence was brought forward to show any disturbance in deceased's mind,

¹⁷ George Hyde, The Union Tavern. See Hitchmough's Black Country Pubs, Bilston:
<https://www.longpull.co.uk/HBCPdownloads/HBCP%20Bilston%2003.pdf>

and the jury returned a verdict of Felo-de-se [suicide]. The body was buried on Monday night, about eleven o'clock, in St. George's churchyard, in this town.

In 1851, the *Sale of Arsenic Regulation Act* - or the Arsenic Act - was introduced to allay public concerns¹⁸.

This stated that anyone who sold arsenic - not just pharmacists - had to adhere to several guidelines:

1. That all the customer's details had to be recorded:

A Statement of such Sale, with the Quantity of Arsenic so sold, and the Purpose for which such Arsenic is required or stated to be required, and the Day of the Month and Year of the Sale, and the Name, Place of Abode, and Condition or Occupation of the Purchaser, into all which Circumstances the Person selling such Arsenic is hereby required and authorized to inquire of the Purchaser before the Delivery to such Purchaser of the Arsenic sold, and such Entries shall in every Case be signed by the Person making the same, and shall also be signed by the Purchaser, unless such Purchaser profess to be unable to write (in which Case the Person making the Entries hereby required shall add to the Particulars to be entered in relation to such Sale the Words "cannot write"), and, where a Witness is hereby required to the Sale, shall also be signed by such Witness, together with his Place of Abode.

2. The vendor could not just sell arsenic to anyone, (s)he had to know the customer as the act states:

¹⁸ For details of the act see:

<https://www.legislation.gov.uk/ukpga/1851/13/contents/enacted>

No Person shall sell Arsenic to any Person who is unknown to the Person selling such Arsenic, unless the Sale be made in the Presence of a Witness who is known to the Person selling the Arsenic, and to whom the Purchaser is known, and who signs his Name, together with his Place of Abode, to such Entries, before the Delivery of the Arsenic to the Purchaser.

3. As arsenic trioxide was a white powder which could have been confused with sugar or flour, a colour to make it distinguishable had to be added to avoid any accidental poisonings.

4. If the vendor contravened any of these, then harsh penalties would ensue. (including being fined £20, equivalent to £1,400 today).

Did murders or accidental deaths by arsenic poisoning cease due to the Act? No. Mary Ann Cotton, Madeline Smith and Florence Maybrick all committed their murders after the Arsenic Act. In 1858, the ‘Bradford sweets poisoning’ occurred when more than 200 people were poisoned, and 21 people died in Bradford when sweets accidentally containing arsenic were sold from a market stall (Jones 2000) and in 1900, more than 6,000 people in England, including people in Wolverhampton, Bilston, Walsall, Darlaston, Stourbridge, and West Bromwich were poisoned – 70 fatally - by beer containing arsenic. The contamination had resulted from sugar tainted by arsenic (Dyer 2009).

Was the act abused? Without a doubt! Given the number of people who could sell arsenic this is not a surprise. But in 1868, *The Pharmacy Act*¹⁹ was introduced, which

¹⁹ <http://hansard.millbanksystems.com/acts/pharmacy-act-1868>

limited the sale of poisons and dangerous drugs to qualified pharmacists and druggists – and also stipulated that the Pharmacist’s name and address was to be on all the packaging of drugs and poisons he²⁰ sold.

But did Black Country pharmacists abuse the sale of arsenic (which was still governed by the 1851 act) and aid and abet murders? Let’s examine the case of Fanny Oliver (which bears echoes of the Susannah Perry case).

Florence Francis Maria Oliver, 28, was a milliner of Harts Hill, between Dudley and Brierley Hill. In July 1869, she appeared at Worcester Assizes charged with murdering her husband, Joseph Oliver, a boiler maker, by poisoning him with Arsenic. She had also stolen money from his building society account using forged documents and was believed to be having an affair with an old flame, John Burgess, a butcher from Wolverhampton. She was sentenced to life imprisonment²¹. She purchased the arsenic from Charles Hazard Gare, a druggist and chemist of 9 Wolverhampton Street, Dudley (Sly 2013).

His testimony to the court was reported in the *Worcestershire Chronicle* (21st July 1869):

Charles Hazard Gare: I am a chemist and druggist and live in Wolverhampton-street, Dudley. In the month of April,

²⁰ In 1870, Fanny Deacon became the first qualified female pharmacist in the United Kingdom.

²¹ Initially sentenced to death, the sentence was commuted to penal servitude for life at Fulham prison. According to her prison records in the National Archives, she was paroled in March 1886. During her time in prison, she sent one letter to Burgess, in January 1872: It was returned unopened.

the 27th, prisoner came into my shop, between three and four in the afternoon. No one came with her. She asked for a shilling's worth of arsenic. I said I could not supply it without the presence of the witness. She went out and returned with another woman in about half an hour. She asked again for a shilling's worth of arsenic. I asked her for what purpose it was required, and prisoner said for bonnet cleaning. I keep a register for sale of arsenic. I said I believed oxalic acid was used for bonnet cleaning. She said: "I use that also, and I shall require some; but I use arsenic as well."

Witness continued: She had an ounce or half an ounce of oxalic acid. I said that arsenic sold in small quantities should be discoloured, but that it would perhaps interfere with the purpose for which she wanted it. She said that it would. This is my register (produced). I asked the prisoner what was her name, address, and occupation, and I made these entries in it. The prisoner then signed "Fanny Burgess" and the other woman signed "E. Whitehouse." The prisoners address, "Park-lane, Dudley Port," I wrote before prisoner signed her name. She gave me her name. I filled up the form previously to handing the book to her to sign. These entries were made by me, upon information which the prisoner gave me. "1869, April 27th. Name and surname of purchaser, Fanny Burgess. Place of abode, Dudley Port. Occupation, dressmaker. Purpose for which required, cleaning bonnets." Another woman brought a piece of paper on the 11th of May, on which was written "Please send 1s. of arsenic for cleaning bonnets. Fanny Burgess." I threw the paper away and supplied the bearer with the arsenic. I asked her to sign her name, but she said she could not write, but her name was Mary Parker. I then wrote that name, to which she made her mark; and where the purchaser's signature should have been, I wrote, "With note, brought by

witness, signed Fanny Burgess." The bearer took the arsenic away.

[Cross examined by Mr. Streeten, Defence]: *I have no recollection of having seen the prisoner before the 27th April. I don't remember a man, this woman's husband, coming late one night just before then; in fact I did not know she was married. I have kept this register since 1851, I admit that I am guilty of a fault in writing the signature of Mary Parker; I ought not to have supplied the arsenic to anyone but the purchaser. What I did was contrary to law. I did; supply the poison to the girl because of the knowledge I had of the prisoner. It is not required by Act of Parliament to register oxalic acid, although it is a deadly poison; we are only required to label it "Poison". The arsenic was not discoloured; it was what is called white arsenic. I did know that something should be mixed with arsenic but nothing was mixed in the two ounces sold. I shall know the consequences of it to my cost. I have frequently refused to sell poisonous articles, and only wish I had done so in this case. I always entered arsenical poisons in the book. Between 1862 and 1865 I may have sold poisons; but I will swear that I have not sold any arsenic except it is entered there. I remember the opening of the Earl of Dudley's fountain, about two years ago. I will not swear that I did not sell half a pound or so on that occasion. I swear that I did not. I have no recollection of having sold arsenic to the prisoner when accompanied by her husband; or, at all events, by a man. Arsenic can be sold at a profit at threepence a pound. I charged 1s. for two ounces because of the risk there is in selling it. I don't know what I should charge for half-a-pound. I don't remember giving 6d. change out of 4s. for half-a-pound of arsenic at the time the Earl and Countess of Dudley came to*

open the fountain. I cannot explain how it is there are three entries in 1867, and none between.

By his lordship: The prisoner seemed straightforward and candid when she came, and so to disarm suspicion.

So, did Mr. Gare wilfully abuse and contravene the Arsenic Act 1851? He adhered to it on April 27th, when Mrs. Oliver (using the name of her paramour: Burgess), wished to buy arsenic, but contravened it, by not colouring it, and selling it to Mary Parker on the 11th May without being witnessed. Careless, yes, but wilfully abetting a murder - far from it, he sold the arsenic in good faith. The absence of entries in the poison book, is not as sinister as it appears, (i.e., that he was deliberately omitting sales). Before 1868 and the introduction of the Pharmacy Act, the sale of arsenic was not limited to Pharmacists, and Mr. Gare admitted he did not sell it cheaply; therefore, those wishing to purchase it would have simply taken their custom elsewhere. However, it was reported in *Pharmaceutical Journal* that Mr. Gare was fined £1 and costs²² by Dudley Magistrates for his contraventions on July 25th 1869.

Chemists and druggists were one of the few affordable sources of diagnoses and medicine for many poor Black Country people. They became known as "*Poor Man's Doctors*" playing an important and necessary role in their communities before the National Health Service. The best example being the chemists and druggists, Mr. James Doo and his son, Mr. Harold Doo, who ran their business in Netherton from the nineteenth into the twentieth centuries, Harold is still fondly remembered

²² In 1869, £1 was equal to £122 today.

in the Black Country and their shop has been recreated at the Black Country Living Museum, Dudley.

Ultimately, such negative portrayals on social media provide little insight into the reality of how professional Victorian Pharmacists worked, leading to stereotypes and caricature thus obscuring the good the Pharmacists did.

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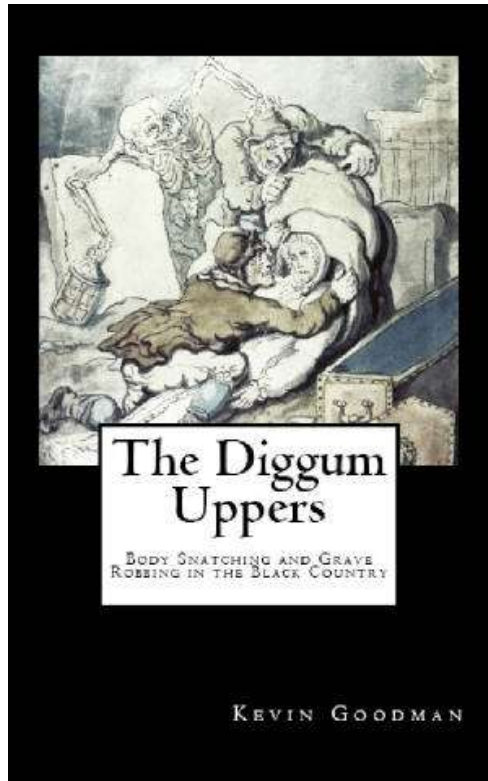
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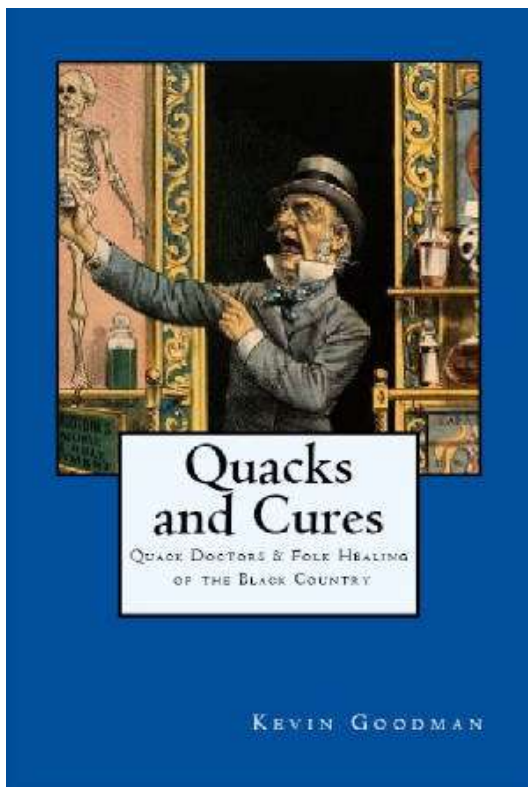
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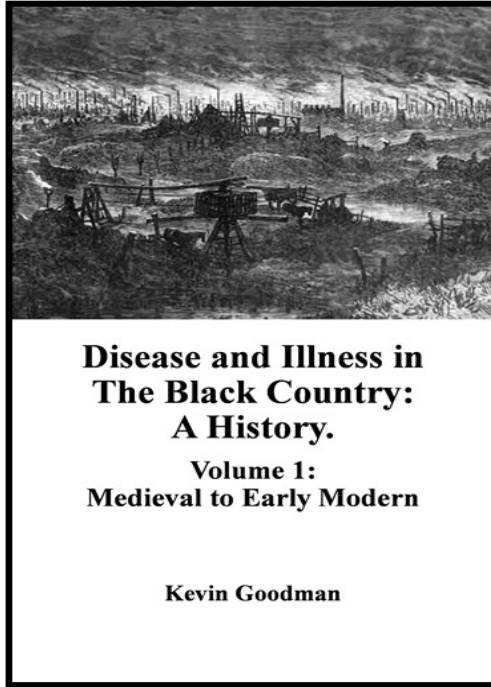
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