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A Little of What You Fancy
Does You . . . Harm!!
(with Apologies to Marie Lloyd)

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Introduction

Realization of the extent of the adulteration of innumerable items of everyday food and drink in the mid-nineteenth century was spread through the print medium, leading to the evolution of new food safety legislation. According to Burnett: “Adulteration of food prevailed in the first half of the nineteenth century to an unprecedented and unsupposed extent,” with farreaching consequences. The sense of panic and outrage engendered by print revelations related both to the sense of being cheated and to fears about actual physical harm done by adulteration. A Cornhill Magazine article emphasized that adulteration “not only lowers the money value of an article” but also “lessens its dietetical qualities,” so that it could become “positively unwholesome.” Worse, “it has of late years become a complete science,” being carried out “with consummate art and skill,” so making detection difficult. This is a particularly interesting “criminal conversation” because of the links promoted between medical experts and the print media when both were striving for professional status. Medical experts were responsible for the alarmist attitudes reported in print, using their own journal, the Lancet, as an initial location for airing views that later found their way into nonspecialist organs like The Times.

Food adulteration was not new. However, there was a valid belief not only that it had more prevalent and threatening since 1800, under the pressure of widespread industrialization and urbanization, but also that existing legislation was ineffective. Urban dwellers had neither resources nor time to produce their own food and daily commodities were purchased from expanding numbers of retail outlets. Contemporary comment underlines the perception
that this was a new phenomenon: “Now bread is almost universally bought from a baker, and the baker universally purchases his flour from a wholesale miller; . . . vinegar, sauces, confectionary [sic], pickles etc. are bought from shopkeepers.” This chapter locates the conversation about food adulteration in this new context, so emphasizing the wider cultural reasons for panic and uncertainty about this area of consumption.

The Emergence of Consumerism

Along with social and demographic change came new attitudes toward consumerism sponsored by the dominant political and economic philosophies of the day, which took the concept of caveat emptor (buyer beware) to new dimensions. For “the capitalist class and the early classical economists” these laissez-faire philosophies “had achieved the status of laws of nature as inexorable as the law of gravity.” Crudely, it amounted to: “if I am allowed to make my own fortune without State interference, then both I and the State benefit. We will both become prosperous and rich, the British Empire will expand and flourish, and that is all very patriotic and Good For The Whole Nation.” However, in the arena of food production, laissez-faire was an encouragement to fraudulent adulteration practices, making it positively detrimental to public health. The extent of human involvement in adulteration was enormous and complex. At one obvious level there were the traders and retailers. But honest traders could be deceived into selling adulterated goods: “[Flour] mills work day and night, alum is sometimes ground at night and added when nobody observed them.”

The defense of current practice used in aspects of the print conversation was the supply and demand principle. If the customer kept coming back, it was because (s)he willingly chose to do so, being equally free to buy goods elsewhere, so ensuring the business of the “bad” retailer/supplier would fail through the (cheap) operation of market forces. Reportage in The Times demonstrates the extent of support at the highest levels:

Great efforts were made by some members of the [1856] Committee to get this whole question of adulteration regarded strictly according to the rules of political economy, and treated simply as a question of supply and demand. It was assumed that the public could tell a genuine article from a mixed one, and that they preferred a mixed one because it was cheaper, and upon that assumption, the inference was made that, after all, the seller of mixed or adulterated articles only met with the wishes of the public in the kind of article he sold. The public had rather have a cheap article mixed,
Editorial comment, though, begged leave “to doubt the truth of that assumption.” It was a flawed argument for very cogent practical reasons. Poor customers would only be able to afford prices at local (second-rate) shops, and also, might well not be clean or well dressed enough to shop at reputable outlets: “There are extensive neighbourhoods in which the poor, without going to some distance, have not the power of buying to advantage” as “only a low class of tradesmen” operated locally. Economic realities also meant that poorer customers were likely to be in debt to local shopkeepers. Thus “Customers were forced to go, by the system of credit, back to butchers convicted of selling slinked meat,” for instance. Further pressures could arise through the network of connections between employers. When the 1856 Select Committee asked a witness why artisans and operatives refrained from prosecuting adultering retailers, it was informed that it was “very likely the working man’s master’s brother or cousin might be connected with the shop and it might have the tendency of sacrificing his means of subsistence.” Moreover, “the working people . . . know if they take any prominent part in a conviction of that description, that they may be picked out by their employers and thrown out of employment and they will have difficulty in getting employment. . . . They will be marked men.”

The legal principle of *caveat emptor* was another control acting in favor of retailers rather than customers, laying the onus on the purchaser not the supplier. The 1856 Select Committee identified problems with this: “It has been objected that the best course will be to leave the buyer to take care of himself. But there are many adulterations which it is impossible for the buyer to detect.” However, the legal position was that if a customer could not detect adulterations, there should be neither complaint nor recompense, since (regardless of practicalities) it was the purchaser’s own fault for not identifying the flaw prior to purchase. Only the challenge posed by the fact that previously undetectable adulteration was now being revealed by scientific analysis forced the admission that this principle needed modification in the area of food adulteration at least:

> it must be remembered too how absolutely the public are at the mercy of shopkeepers in these matters. The rule of *caveat emptor* would be a very unfair one to apply rigidly in such cases. How is a man, when he goes into a shop, to know a spurious article from a genuine one?  

Publicly expressed fears about the extent of the threat of adulteration was also
a factor in actions taken from 1850 to ameliorate the negative impacts of free market principles: “Death is not only in the pot, it is everywhere; not only in our food and in our drink, but in the very medicines which should cure our diseases.”

The Extent of the Problem

The problem of food and drink adulteration reached a peak in the 1850s. Contemporaries claimed that “almost every article of food that can be adulterated is so . . . very often . . . with highly poisonous ingredients, the consequences being an immense amount of imposition, and what is still worse, of disease.” A brief (though certainly not exhaustive) survey follows, covering some of the key everyday items and their common forms of adulteration.

Drinking Water

Of the state of drinking water, especially that flowing through London, it was commented:

the water which is supplied to this Metropolis is hardly anything else but diluted mud and sewer refuse . . . it contains the excreta of two and a half millions of inhabitants, their daily ablutions, the washings of their foul linen, the filth and refuse of hundreds of factories; the offal of markets, the foul matter of slaughter houses and the purulent abominations of hospitals. . . . I think it is astonishing that we are not much worse off in point of public health than we really are.

London’s experience, if extreme, differed only in degree from other industrialized urban centers. Drinking water was also used for fraudulent dilution purposes.

Flour

Millers added sulfate of lime, chalk, china clay, and powdered flints as whiteners and a cheap addition to bulk. Large amounts of alum (sulfuric acid, potash, and alumina) were also commonly added. Apart from being a powerful astringent, repeated and continuous doses of alum also lowered the capacity for nutritional intake of food. Further down the production chain, bakers bulked out flour with damaged foreign wheat and other cereals. They also added alum to inferior grades of flour, as well as (less harmfully) beans,
peas, and boiled potatoes, enabling them to add more water to the bread, boosting profits.\textsuperscript{25} To save yeast while making adulterated dough rise, carbonates of magnesium, ammonia, and gypsum (i.e., lime and sulfuric acid) were added. The good looking but inferior bread could then be passed off as a more expensive “first” loaf. With bread a crucial element in the diet of the poor, its adulteration was a key concern: “If bread was once the ‘staff of life,’ it is now certainly very often the crutch of destruction.”\textsuperscript{26}

\textit{Milk}

Commonly watered down by between 10 and 50 percent to increase profit, this not only lowered nutritional value but use of polluted water introduced further damaging elements to the food production chain.\textsuperscript{27}

\textit{Beer}

Water pollution ensured beer was a staple drink. However, the liberalizing provisions of the Beerhouse Act 1830 had meant that beer sold in beer shops, mainly to the poorest sections of the population, was of notoriously bad quality. Since strength was not a standard requisite, it was diluted with polluted water. Salt in varying amounts was added to give the drinker a thirst, witness the habits of Sarah Page, described by the magistrate as the “worst case” to have come to his notice. Analysis showed that two quarts of adulterated ale from her Wednesbury beerhouse contained nearly 169 grains per gallon, about 119 more than allowed.\textsuperscript{28} To replace the alcohol (i.e: intoxication potential) lost through dilution, \textit{Cocculus Indicus} (a dangerous poison containing picrotoxin) was commonly added as a substitute for malt in the brewing process.\textsuperscript{29} Provided by brewers’ druggists under the name of “multum” or “hard mixture,” its only use was beer adulteration.\textsuperscript{30} Grains of paradise and tobacco could also be added (both containing drugs), along with quassia, gentian, chiretta, cayenne pepper, and coriander.\textsuperscript{31} To replace the head lost through dilution, copperas or sulfate of iron was added.\textsuperscript{32} Public expressions of concern advertised both the physical effects of adulteration and wider social anxieties about the effects of drink on the working population:

The adulteration of drinks deserves also special notice because Your Committee cannot but conclude that the intoxication so deplorably prevalent, is in many cases less due to the natural properties of the drinks themselves, than to the admixture of narcotics or other noxious substances intended to supply the properties lost by dilution.\textsuperscript{33}
Tea

As with flour, there was a positive chain of adulteration in this heavily adulterated item. Damaged green tea was treated in Canton factories by coloring and mixing it with mineral dyes. At one stage it was calculated approximately five million pounds of adulterated tea was imported annually, amounting to half of all imported green China teas. Even originally good quality green tea was commonly adulterated in China, with “lie tea,” so named because it was “an article expressly manufactured for the adulteration of tea.” “Lie tea” included not just tea dust, but also china clay, gum, sand, sulfate of iron, and Prussian blue (to give it a green bloom). Bought extensively for mixing with genuine tea, dealers sold the resulting mixture at inflated prices as the real article. This so distorted the market that “We could hardly sell true Green tea before the exposures by the *Lancet* in 1850 and 1851.” It was not the only adulteration. “Spurious” tea was produced by English retailers, large and small, from (among other things) hedgerow leaves (beech, elm, ash, sloe, hawthorn, and elder). The leaves were curled and colored in copper plates, and, along with gum and dust, were added to reused, dried tea leaves (there was a flourishing black market trade with hotels, etc.). The result was colored and “faced” with verdigris or sulfate of lime, to give a green bloom.

Coffee

This was commonly heavily adulterated with chicory, the best of which, according to one Board of Inland Revenue analytical chemist, came from beetroot. Chicory was itself commonly grossly adulterated with ground roasted wheat, mustard husks, ground acorns, mangel-wurzel, sawdust, and burnt sugar. Other favored adulterations included roasted corn, roots of various vegetables, baked horse’s liver and coloring matter such as red iodine.

Baking Powder

Alum was a cheap substitute for tartaric acid. Its deleterious effects meant that the potential combination of contaminated baking powder and flour in bakery goods, and in home-baked articles was a real concern.

Bottled Pickles, Preserves, Fruits, and Vegetables

Poisonous copper sulfate was used to provide the green coloring that was characteristic of these products. While “Sometimes apparently [the copper is]
obtained from the copper vessel in which they are prepared” it was also added more deliberately.40

Sugar Confectionery

Sugar was often adulterated with hydrated sulfate of lime, but confectionery also featured a wide range of adulterations, including flour, starch, clay, plaster-of-Paris, chalk, arsenic, chromate of lead, red lead, arsenite of copper, and bisulfate of mercury, plus poisonous pigments such as Prussian or Antwerp blue or vermillion. Many samples contained at least seven different colors and four poisons. In some cases, colors had been painted on with white lead.41 The combinations could be disastrous, especially since “The effect of such adulteration [upon children] is likely to be much greater than upon a grown person.”42

The Victims and the Perpetrators

All levels of society were victims, though contemporaries recognized the poor were most affected: “Though adulterations prevail more or less in all districts, it may be assumed as a rule, that the poorer the district, the greater is the amount of adulteration.”43 From the millers to the bakers; the dairy farmers to the milk sellers; the tea and coffee importers to the wholesalers and retailers; and the brewers to the publicans, all were implicated. If retailers had less chance for individual enterprise in some areas such as confectionery making and production of bottled fruit, vegetables, and sauces, the unpackaged (loose) sale of so many items ensured that many, if not most, were involved in some adulterating practices. All levels of production and retail were involved because “A man feels he cannot maintain his position in trade unless he does what his neighbour does; consequently, if his neighbour adulterates, he does so too to agree with him in his prices.”44 Consequently it was not always done out of motivations of pure individual greed:

Though happily very many refuse under every temptation to falsify the quality of their wares, there are unfortunately, large numbers who, though reluctantly practicing deception, yield to the pernicious contagion of example, or to the hard pressure of competition forced upon them by their less scrupulous neighbours.45

The pressures placed on those involved in food production and retail were recognized as being considerable:
I believe there are a great many people who adulterate in self-defence and
who would be glad if something could be done to prevent it. . . . I believe
many honest traders would be glad to have done with adulteration but in
self-defence they must do it.46

However, the reality was that from the raw ingredients to the finished items
of food adulteration was a “normal” part of production practice by the 1850s.
The more steps were involved in the food production chain the worse adul-
teration got with every step carrying out their own form of tampering. This
was the first era of mass retailing of cheap food and drink, and that cheapness
was achieved through adulteration, not low profit margins.47

Knowledge of likely adulteration did not mean that purchasers and con-
sumers could identify specific adulteration.48 Buying in ignorance, they did
not intend to buy staple items of their daily diet consenting to adulteration.
Yet retailers and others involved in the production chain claimed that they
were as much driven by consumer demand as greed. The Times commented
on the consequent problems:

Wherever you go, people talk about bread. It stands next to the weather as
a topic. . . . There can be no doubt that the bakers could give us pure wheat
bread if they would . . . but they are carried away by the spirit of rivalry and
competition. . . . They use a deceitful expedient for this purpose in the shape
of alum, and they say “Oh there is no harm in it because every baker can do
the same; so there is not really any unfair advantage taken by one baker over
another.” The public indeed, it is known, want pure white bread; but then
the bakers agree that the public is prejudiced and that alum will do them no
harm and they give themselves the licence of . . . a superior acquaintance
with the subject.49

By midcentury, virtually every item of diet had the potential to hurt both the
pockets and the stomachs of customers, cheating them of good honest pur-
chases in the short term, and cumulatively of their physical health in the long
term. But generally, customers could only identify adulteration if, and when,
a particular item had a violent consequence, such as an outbreak of food poi-
soning clearly related to a certain event.50

The effects, of course, told most harshly on those on the economic mar-
gins, especially those (in workhouses or prisons, say) unable to take any role
in the purchase. Take the prosecution of Messrs. John Collier and Co., found
guilty of supplying a workhouse with adulterated butter, consisting of 70 per-
cent foreign fat. On the grounds that the butter was not of the quality agreed,
the firm was fined £10 plus costs, and the expenses attending the analyst's certificate, hardly enough to deter future adulterations. Economic pressures on such institutions ensured that such incidents did not put suppliers out of business, regardless of the taint from past incidents. Equally, these adulterative practices had been going on for such a long time, that as a general rule, poor urban-based consumers did not know that food and drink could taste or look better. An honest retailer could discover that “[The public] did not believe that my genuine article was genuine; there are many things in this country of which the true flavour is lost.”

Revelations and Denouements

Apart from suspecting something was wrong in individual cases, general public awareness only developed slowly. Campaigns against adulteration began in earnest about 1820, instigated by philanthropic businessmen, medical practitioners, surgeons, coroners, journalists, and “whistle-blowing” food adulterators (like journeymen bakers). These campaigns only slowly gathered momentum from the 1840s on. While informative and/or denunciatory books were published from time to time, “the writings of these gentlemen . . . made little public impression.” One important reason was that “the existing state of our knowledge at the time did not in all cases enable them to make their statements sufficiently exact and precise,” so it was taken as self-interested scaremongering. The catalyst for change leading to actual legal reforms was the campaign led by Dr. T. Wakely, proprietor of the *Lancet*. He and his medical colleagues undertook an antiadulteration crusade from 1851 onward as part of their wider campaign to heighten the public profile of medicine, and to establish medical practitioners as professionals. Their method was random purchase from London retailers of basic food items, and their careful analysis under microscope.

Only chemical analysis had previously been available, and it had been “seldom possible to distinguish one vegetable powder from another” and “until the microscope was brought to bear upon the subject . . . no means existed whereby the great majority of adulterations could be discovered.” Initially, “the parties practising [adulterations] little dreamt that an instrument existed capable of bringing to light even these secret and guilty proceedings.” Soon consciousness spread that

[in] the microscope . . . the scientific observer is provided with the most powerful and searching means of discovering adulteration. The application of
this instrument created no little surprise and alarm amongst the perpetrators of such frauds. Hundreds of sophistications were brought to light which had for years escaped delivery, and thus a blow [was dealt] to adulteration from which it can never wholly recover.\textsuperscript{58}

These medical men set up the Analytical Sanitary Commission, including Dr. A. H. Hassall and Dr. H. Letheby as leading lights. The results of their analyses were published weekly in the \textit{Lancet} from 1851–1854, together with the names and addresses of the fraudulent traders. It was a gift to the nonspecialist media, who published key extracts. In so doing, they ensured for the first time that the issue of food adulteration became a matter of genuine public concern, leading to the kinds of newspaper rhetoric that encouraged the growth of social panic: “The results disclosed by the labours of the Analytical Sanatory \textit{sic} Commission of the \textit{Lancet} were of so serious and alarming a character that they excited almost universal attention.”\textsuperscript{59} Hassall’s revelations of “The amount of adulteration in almost every article of food and drink” was “very appalling,” and undermined “a great deal of our conventional and almost stereotyped boasting of our commercial integrity.”\textsuperscript{60}

The massive publicity resulting from this reprinting in leading national newspapers of the \textit{Lancet’s} carefully orchestrated campaign delighted Dr. Hassall and boosted medical pretensions.\textsuperscript{61} It also ensured that any incidents of death, poisoning, paralysis, or illness caused, or suspected to be caused, by food adulteration attracted real publicity, as when over 200 people were poisoned in Bradford in 1858 as a result of the accidental adulteration of a batch of sweets. The intention had been to “extend” the mix by adding plaster-of-Paris as “normal,” but arsenic was used instead and seventeen died!\textsuperscript{62} The resulting moral outrage, expressed in newspapers and periodicals, soon affected the legislature.

A House of Commons Select Committee was established in July 1855 to inquire into the adulteration of food, drink, and drugs. Volunteer witnesses came from all over the country to give evidence, including “converted” food adulterators such as journeymen bakers and Messrs. Crosse and Blackwell, plus representatives from the medical profession and the newly formed Co-operative Societies. It is moving, 150 years later, to read their evidence. Their honest altruism and the horrific experiences recounted make impressive reading:

I was 30 years a mustard, chicory, drug and spice grinder . . . I have done as much in the way of adulteration as any man in the trade and I have done more than almost any man to expose it. I have done it in defiance of my employers, with a view to crush it and I have felt exceedingly glad to have
an opportunity of giving it a severe blow. I believe many honest men will thank anyone who will put an end to it. 63

Many representatives of the alleged fraudsters (large and small concerns) also attended to give their accounts and the evenhandedness of the Committee’s members in receiving their testimonies is noteworthy. Of the explanations and excuses, *The Times* pointed out “The defence of the adulterators is the old one ‘populus vult decipi et decipiatur.’” 64

Excuses ranged from generic claims that accused individuals were not responsible for adulteration, to particular claims, such as “High price bakers around London do not add alum.” 65 Mr. Jackson claimed: “In all parts of Lancashire and Yorkshire they have used [alum] steadily for the last, say, a dozen years. But not me.” 66 Mr. Wickham claimed that “Brewers are not adulterators of beer . . . where adulteration takes place, it is generally in the publicans’ cellars.” 67 Retailers claimed either not to know products were adulterated, or that the reason for cheapness of a particular source of, say, flour, was that it was not “pure” but that this was not the same as being “adulterated”: “we were providing cheap versions for poor people who could not afford better quality.” Arguing that they were “providing a public service,” giving “what our customers wanted,” such retailers would even argue that adulteration improved the original article: “There is a vague impression upon the public mind that a little admixture of chicory improves the beverage we call coffee.” 68

Such retailers had some supporting evidence to call on, as in the case of that key staple, bread. Knowing no better, poor customers not only wanted unnaturally white bread but also, equally unnaturally, loaves “with no holes in it.” According to one miller:

the reason why there should be no large holes[ in bread] is, that the industrious classes are very particular when they spread their butter it should not slip into holes and consume a large quantity of butter; they like an even surface. It may perhaps appear trivial to the gentlemen present, but the lower classes consider it to be of great importance. To give the above qualities to my flour, I add one part of bean flour to 60 parts of wheatmeal. Never more than one part in 40. 69

*The Times* commented severely on such deceptions practiced on the ignorant:

when they have . . . for a long time mixed all the bread in England with alum; when they have familiarised the public with this false colour of bread,
then they take advantage of the mistake which they themselves have caused to claim the public on their side and say that people will not buy any bread but what is mixed with alum. . . . Such is the ground of the conspiracy which is now depriving the whole country of good bread; and it is only an instance of how very easily people can justify to themselves any mode of action to which they are accustomed and with which their interests agree. 70

Others gave more honest justifications for the enduring profit motive, as in the 1875 prosecution in Salford Police Court, reported in the Manchester Guardian, of the farmer who admitted adulterating his milk with 29 percent of water, because he “could not be expected to supply pure milk at the contract price of 1s per gallon” (the “average” price was ninepence). He was fined £20 in what was headlined the “worst” example to come under that magistrate’s notice.71 In 1856, Mr. Wickham, representing the brewing industry, claimed that because it was “customary for publicans to sell beer at the price which they pay to brewers,” adulteration “forms their actual profit.” A change would mean that the public would “pay a higher price for their beer.”72 There was also always the implicit claim that an adulteration was really harmless: as the Chairman of the Leamington Board of Health, commented, “‘What the eye never sees the heart never grieves for’ is the rule which I should adopt in reference to that.”73

There were wide-ranging implications. As The Times pointed out, “It may be said that the poor want cheap articles, and that cheap articles must be adulterated; and the defender of ‘innocuous’ adulteration may use this argument for the conclusion he arrives at.” But “how can you check adulteration when it begins; and when it has outgrown the harmless limit and becomes poisonous, who are so absolutely the victims of this worst and most fatal kind of adulteration as the poor?” when this vulnerable social category was “in the hands of that class of tradesmen who are least under the influence of public opinion and who are most tempted to make their way by the low arts and tricks of trade.”74

Despite the pressures on it to endorse the status quo, the Committee’s Report was unequivocal in its conclusions: “Not only is the public health thus exposed to danger and pecuniary fraud committed on the whole country, but the public morality is tainted and the high commercial character of this country seriously lowered both at home and in the eyes of foreign countries.”75 The Times headlined a meeting of the citizens of Manchester which concluded that the adulteration of food having been proved to exist to a very large extent and the consequences resulting thereof being most injurious to the public, both
in sanitary and commercial points of view . . . it is the opinion of this meet-
ing that the corporate and other local authorities ought to possess the power of inspecting all food offered for sale and that the vendors of food injuri-
ously adulterated should be subject to a penalty. 76

As in other places, such comments from “concerned” citizens were fol-
lowed up by petitions to Parliament.

Responses to the Need for Consumer Protection

Faced with such pressures, there seemed little option but to enact new legis-
lation. Legislation dealing with food and drink standards already existed, but in practice had either been repealed or had no practical effect. Earlier Bread
Acts for London were practically obsolete: “so far as I know, there is not a sin-
gle baker in London who makes bread without alum.”77 The legislation aris-
ing out of the 1856 Report was the Adulteration of Food or Drink Act 1860,
the first to deal generally with the sale of food and drugs in a pure state by
promoting analysis of goods.78 The Recital to the Act stated that the practices of adulteration “were a fraud on Her Majesty’s subjects and a great hurt to
their health,” and also acknowledged that “more effectual laws than before were required to repress the practice of adulterating articles of food and
drink.” At one level, it is simply one example of the many pieces of public
health legislation “seen as one long campaign orchestrated by (though not
confined to) the professional class against the vested interests of the proper-
tied classes,” which enjoyed limited success.79 Its provisions were a compro-
mise, too limited in scope and resources for enforcement, given the vested
interests involved. As the subsequent 1874 Select Committee Report com-
mented, it did not think that Parliament desired “needlessly to hamper” trade,
and “still less to interfere between buyer and seller with the view of regulating
prices,” or to attempt to help consumers assess the “real money value of any
marketable commodity.”80 However, it was the first acknowledgement of the
principle that consumer protection measures were the general responsibility of the state.81

Ultimately it was ineffectual, and the hints that it would not achieve its
advertised aim were contained in the evidence to the Select Committee, as
when Dr. Postgate commented that he “had been sent messages by millers and
bakers that they would not be interfered with in their business; they had
introduced alum and potatoes and would continue to do it.”82 Its practical
limitations soon became apparent. Dr. H. Letheby (recently appointed Pub-
lic Analyst of Food) reported that the poor would be “unable to pay the fee
named” for analysis, and therefore, “unless something is done to assist them . . . they will be shut out most completely from the benefits of the Act.” He suggested giving analysts discretionary powers to conduct inquiries without charge, and that Inspectors of Meats and Markets make their own purchases of samples of food and drink. This was not done, but the legislation did facilitate changes in attitudes and ensured continued public debate about the need to improve standards both through legislation and promotion of changes in consumer attitudes, because the “most beneficial” strategies were those “to prevent adulteration, rather than punish it.”

The 1860 Act was amended by the Adulteration of Food, Drink, and Drugs Act 1872. A Select Committee followed in 1874. Its Report resulted in the introduction of the more effective Sale of Food and Drugs Act 1875, the basis of modern equivalent legislation, such as the Food Safety Act 1990. Space does not permit detailed examination of its provisions but it established as a criminal offense “knowingly selling adulterated food which was injurious to health” and a strict liability offense of selling to the prejudice of a purchaser any article of food not of the nature, substance, and quality of the article demanded. “Bulking up” items with other articles (unless the purchaser’s notice was drawn to it by labels), was also prohibited. More Public Analysts were appointed and greater powers to procure samples given to local authority-appointed Inspectors of Nuisance or Weights and Measures or Markets, leading to prosecution of offenders.

Under the 1875 Act all imported teas became subject to Customs’ analysis for purity, and any unfit for consumption were destroyed, an action recommended by the 1874 Select Committee Report. The same tea could be further scrutinized by a Public Analyst to check on possible later adulteration. Tea also now began to be sold in sealed packets under proprietary names, such as Lyons, Liptons, and Hornimans, to guarantee their purity. After the 1856 Report, many retail organizations began to clean up their acts voluntarily because “There is such a desire on the part of tradesmen to get rid of these dishonest practices, that they would submit to almost any inconvenience . . . for the purpose,” though the effects of public disapproval or prosecution cannot be discounted! Local and national press reported on bodies such as the Birmingham and Midland Counties Association, established to detect and prevent adulteration of flour. In 1858, when its committee reported its activities, they stated that when inspections had started, “they had found many instances” of adulteration with alum, but cautions, backed up by hint of prosecution, had produced a “salutary effect.” Consequently, the committee had “reason to believe” that that evil was “nearly suppressed” in their locality. Crosse and Blackwell, for example, changed their practices, no longer pickling products in copper vessels or coloring sauces with demonstrated
poisons. The 1875 Act provided for guarantees of purity to be printed on the packet wrappers used by shops, along with certificates from reputable analysts to guarantee the purity of articles. Another impetus for purity came with the development, from 1844, of the Co-operative Retail Societies aiming to provide their mainly working-class members with pure items of food.

There were hiccoughs along the way, though, in terms of consumer attitudes. Crosse and Blackwell, for instance, had been obliged to advertise the reasons for the changes in color of their pickles, and so forth, before the public would accept the pure articles. Co-operative Societies found that their members were not happy with the different taste and appearance of unadulterated items, facing complaints that “this [adulterated] bread is nicer than the bread made from the flour you turn out and we buy it at 2d a score cheaper.” The Societies had to resort to adulterating their own items, to “wean them off” and gain public acceptance of the pure articles, being “compelled to adulterate with alum to gain the customers and bring back the . . . lost profits over nine months.” Such bodies resorted to the use of traveling lecturers to “explain matters to the working classes.” As Birmingham surgeon John Postgate commented: “They had to explain to people that bread was not naturally of white appearance, but of a yellowish colour.” Despite difficulties, efforts were rewarded:

We are working and turning out now a pure article. The people seem to be more convinced than they were at first that an impure article is not good for the constitution, and now we are doing three times the business that we were doing after we began to adulterate.

Shifts in public taste also helped, as with the development of preference for Indian and Ceylon teas, rather than the commonly adulterated green teas.

Conclusion

The role played by the media in publishing, on a national and local scale, the details of the extent and nature of such practices, was crucial to the outcome, as contemporaries readily acknowledged:

I consider I am greatly within the mark when I say that there is not one-twentieth part of the adulteration prevailing at the present moment that did prevail four or five years from this time. I attribute that to the frequent and repeated exposures which have taken place of adulteration and to the fact
that adulteration has been brought home to the persons practising it; their names have been more known to the public.  

Mr. Farrand of the Corn Mill Society also accepted that “There was such a noise in the newspapers of the injury that was being done to the constitution by the use of alum that people began to be convinced that it was injurious.” Indeed, while the 1856 Select Committee was receiving evidence, there were almost daily media reports of its witnesses’ statements. Hand-in-hand with the preventative advice, publicity was also given to prosecutions undertaken throughout the country, as in the case of the prosecution of the Newcastle dealer convicted of selling pepper adulterated with mustard husks and given the maximum fine of £100. Even less severely punished cases were included in the national newspaper debate on a daily basis, as the typical examples of the Birkenhead tea dealers fined five shillings and costs by the magistrates for selling tea laced with Prussian blue, and of the butter seller fined £5 and twelve shillings costs for selling butter “containing no butter whatever.” Such publicity had a clear preventive effect, but it was not all positive. The media also circulated advice for the avoidance of criminal actions, and newspapers regularly published letters of complaint and declarations of innocence from traders. Given the breadth of contrary evidence also available in the press, it may be doubted whether these complaints were believed widely by the public, but they cannot have helped efforts to eradicate adulteration.

An 1872 report in *The Times* referring to a recent article in the *Food Journal* provides a fitting conclusion:

Mr. Muntz’s Adulteration Bill has by its third clause given great offence to the manufacturers of some articles of daily consumption which have hitherto deceived the public with impunity. Some of the wholesale warehouses have very properly refused to deal in many cocoas, mustards, and spices unless they receive a guarantee from the manufacturers that the article is genuine or that the outer wrapper or tin containing adulterated articles bears a label stating the composition of the mixture. It may be assumed that this course of conduct on the part of the wholesale warehouses will considerably benefit the public, while the manufacturers themselves will not be overanxious to enlighten the community as to the composition of the articles they have hitherto supplied. Doubtless much evasion will be practised, but the public must be on the alert; and now that the adulteration question is to the front, it should not be allowed to slumber until the present unhealthy state of trade is remedied. We now have the delightful spectacle of witnessing manufacturers preparing to tell the people the composition of what they are eating and drinking. It is consolatory to those
who have long known the secrets of the trade and who being well aware of the rubbish sold under popular names, have done all in their power to put a stop to such a barefaced deception, to observe the consternation among certain manufacturers caused by the Adulteration Act of last Session.\textsuperscript{112}

Sadly, the optimism was ill founded. More than a hundred years later, it was deemed necessary, essential even, that a Food Standards Agency be established to carry out certain prescribed functions, including protecting public health from risks connected to production or supply of food, developing food policy, and providing advice for public authorities, as well as monitoring the performance of the enforcement authorities in enforcing the relevant legislation.\textsuperscript{113} All these are up-to-date variations on the debates and themes considered above—\textit{plus ça change, plus c’est la même chose!}

\textbf{Notes}

6. Ibid., 61.
9. PP, House of Commons Select Committee 1856, Evidence, Dr. W. B. Carpenter, M.D., March 1856.
10. Ibid., Evidence, J. Woodin, grocer and tea dealer for the Co-operative Central Agency, March 1856; Evidence, J. Jackson, miller, Wakefield, 25 April 1856. Woodin was author of \textit{The System of Adulteration and Fraud Now Prevailing in Trade} (London, 1852).
12. Leader, \textit{The Times}, 20 August 1856.
13. PP, House of Commons Select Committee, Evidence, Dr. T. Wakely, March 1856. Wakely was coroner for Middlesex and owner/editor of \textit{The Lancet}.
14. Ibid., Evidence, Prof. F. C. Calvert, March 1856. “Slinked meat” was from naturally aborted calves.
15. Ibid., W. Emerson, manager of the People's Flour Mill, Leeds, March 1856.
17. Select Committee Report, 1856.
21. PP, House of Commons Select Committee, Evidence, Dr. A. Normandy, 25 July 1855. A professional chemist, Normandy was author of The Commercial Handbook of Chemical Analysis (London, 1850).
22. Ibid., Evidence, J. Jackson, 25 April 1856.
23. Ibid., Evidence, Dr. J. Postgate, August 1855; Dr. A. Normandy, 25 July 1855.
24. Ibid., Evidence, Dr. J. Postgate, August 1855.
26. Kemp, Review, 65. See also Burnett, Plenty and Want, 118.
27. Burnett, Plenty and Want, 242; Kemp, Review, 72. See also Daily Telegraph, 10 April 1874.
29. Burnett, Plenty and Want, 102.
30. PP, House of Commons Select Committee, Evidence, J. Rodgers, April 1856.
31. Ibid., Evidence, E. Wickham, April 1856; G. Phillips, 1 August 1855.
33. Select Committee Report, 1856.
34. Burnett, Plenty and Want, 245.
35. Hassall, Food, xv–xvi.
36. Ibid.
37. PP, House of Commons Select Committee, Evidence, J. Woodin, March 1856.
38. Burnett, Plenty and Want, 103; Kemp, Review, 71.
39. PP, House of Commons Select Committee, Evidence, G. Phillips, 1 August 1855; Burnett, Plenty and Want, 107.
40. Kemp, Review, 68.
41. PP, House of Commons Select Committee, Evidence, Dr. Lethaby, August 1855.
42. Ibid., Evidence, Dr. A. Hassall, 13 July 1855.
43. Ibid., Evidence, Dr. W. B. Carpenter, March 1856.
44. Ibid., Evidence, Dr. T. Wakely, March 1856.
45. Select Committee Report 1856.
46. PP, House of Commons Select Committee, Evidence, R. Gay, March 1856. Gay was superintendent of the Mustard Department at HM Victualling Yard, Dartford.
47. Ibid., Evidence, P. Mackenzie, 30 April 1856. Mackenzie was editor of the Glasgow Reformers' Gazette.
49. Leader, The Times, 21 August 1856.
50. See Burnett, Plenty and Want, 119, 256, for examples of food poisoning causing deaths and illness.
51. PP, House of Commons Select Committee, Evidence, Prof. F. C. Calvert, March 1856; Daily Telegraph, 10 April 1885.
52. PP, House of Commons Select Committee, Evidence, Dr. A. H. Hassall, 2, May 7 1856.
53. Ibid., Evidence, R. Gay, March 1856.
54. Fallows, Food, 125; Burnett, Plenty and Want, 101; Kemp, Review, 62 refers to F. Accum, A Treatise on Adulterations of Food and Culinary Poisons (London, 1820).
55. See Mitchell, Treatise; Fallows, Food, 30.
57. PP, House of Commons Select Committee, Evidence, Dr. A. H. Hassall, 13 July 1855.
59. Ibid., 88.
60. Kemp, Review, 75.
62. Daily Telegraph, 4 May 1858.
63. PP, House of Commons Select Committee, Evidence, R. Gay, March 1856.
64. Leader, The Times, 3 January 1856.
65. PP, House of Commons Select Committee, Evidence, T. K. Callard, baker, 16 April 1856.
66. Ibid., J. Jackson, 25 April 1856.
67. Ibid., E. Wickham, April 1856.
68. Kemp, Review, 74.
69. PP, House of Commons Select Committee, Evidence, P. Brown, miller, 16 April 1856.
70. Leader, The Times, 21 August 1856.
71. Manchester Guardian, 5 February 1875. See also PP, House of Commons Select Committee, Evidence, T. K. Callard, baker, 16 April 1856.
72. Ibid., Evidence, E. Wickham, 16 April 1856.
73. Ibid., Evidence, R. A Wallington, August 1855.
74. Leader, The Times, 20 August 1856.
75. Select Committee Report 1856.
76. “Meeting of the Citizens of Manchester at the Town Hall on 1 January,” The Times, 18 January 1859.
77. PP, House of Commons Select Committee, Evidence, P. Brown, miller, 16 April 1856; J. Rodgers, April 1856; Dr. A. Normandy 18 July 1855. See also S.2 Bread Act 1822 for list of permissible ingredients in bread.
78. Burnett, Plenty and Want, 258.
79. Perkin, Professional Society, 121.
82. PP, House of Commons Select Committee, Evidence, Dr. J. Postgate, August 1855.
83. 1860 Act S.4; The Times, 1 December 1860.
84. The Times, 1 December 1860.
85. Ss. 6, 7, 8.
87. See Report of the Select Committee on the Adulteration of Food Act 1872, dated 3 July 1874; Fallows, Food, 32; Burnett, Plenty and Want, 260.
88. S.3; s. 6. See, for example, Parker v Alder [1899] 1 QB 20; Andrews v Luckin (1917) 117 LT 726.
89. Ss. 6, 7, 8.
90. S.13. Compare with 1872 Act, ss. 6, 8, 10, 13, 18, 21.
92. Burnett, Plenty and Want, 265.
93. Ibid., 252.
94. PP, House of Commons Select Committee, Evidence, Dr. T. Wakely, March 1856.
95. Manchester Guardian, 6 December 1858.
96. PP, House of Commons Select Committee, Evidence, T. Blackwell, 18 July 1855.
97. S.12.
98. PP, House of Commons Select Committee, Evidence, W. Emerson, March 1856; E. Farrand, March 1856. Emerson was manager of The People’s Flour Mill, Leeds, established in 1847 to provide pure genuine flour and bake bread in their own ovens.
100. PP, House of Commons Select Committee, Evidence, E. Farrand, March 1856.
101. Ibid.
102. Ibid., Evidence, J. Woodin, March 1856.
103. Ibid., Evidence, Dr. J. Postgate, August 1855.
104. Ibid., Evidence, Mr. E. Farrand, March 1856.
106. PP, House of Commons Select Committee, Evidence, Dr. Hassall, 2 May 1856.
107. Ibid., Mr. E. Farrand, March 1856.
110. Illustrated London News, 28 June 1873; Daily Telegraph, 10 April 1884.
112. The Times, 30 September 1872.
Figure 4. *Illustrated Police News*, 11 October 1870. This page is largely taken up with depictions of episodes in the career of baby-farmer Mrs. Waters, but also shows aspects of assaults upon women, and the results of the escape of a mad cow.