***Aeneas Coffey and the role of tax in the emergence of modern whiskey***

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**Abstract**

**Introduction**

The continuous distillation system used in the manufacture of most grain whiskey is called the ‘Coffey still’ and can be compared with the traditional ‘pot still’ that is used to make most malt whiskey.[[1]](#footnote-1) The apparatus is named after Aeneas Coffey, an Excise official who started his career as a gauger, or junior compliance officer, in the northwest of Ireland in the early years of the nineteenth century. He rose through the ranks to become an Inspector General of Excise in Ireland before leaving the service in 1824 to begin a new career as a distiller and inventor. A great deal is known about his life, although there are unfortunate gaps in the evidence between 1824 and the grant of a patent for the Coffey still in 1830. Less well appreciated is the extent to which Coffey’s career exemplifies an extraordinary period of overlap between tax and technology that was to have profound consequences for both, or his personal role in bringing this period to a close in 1823.

The key to understanding this period is a piece of legislation of 1779 which had the effect of imposing spirits duty, not on the amounts actually distilled, sold or consumed, but on an estimate of what each still was capable of producing.[[2]](#footnote-2) Although this seems to have been a well-intended reform, it distorted technological development in the distilling industry by triggering a race between distillers and Excise to see if whiskey could be produced more quickly and in greater volumes than the statutory estimate, which was in turn increased regularly. This had three implications which are particularly important to the story of Aeneas Coffey. First, smaller operators were unable to compete as licensed distilleries in the new environment, and many transitioned to producing illegal whiskey, which will be described by its Irish name ‘poitín’ in the remainder of this chapter in order to differentiate it from the produce of lawful distillers. Second, it encouraged technological development in favour of high-speed distillation at the expense of horrendous fuel inefficiencies. It was also said by some observers to produce such low-quality whiskey that many consumers especially in the north of Ireland preferred to drink poitín on taste as well as cost grounds.[[3]](#footnote-3) Third, it obscured some of the problems of duty evasion in licensed distilleries, which did not entirely disappear between 1779 and 1823 but in some respects became less urgent when charges were being calculated based on estimates.

The life and work of Aeneas Coffey offers a particularly useful window on this period of history because he seems always to have been at the centre of the action. His area of operation as a gauger included the remote and mountainous Inishowen peninsula in Co Donegal that was notorious for poitín making. He was attacked in the course of his duties in 181X and a few years later was engaged in a highly public disagreement with the local landowner Edward Chichester about the merits of a heavy-handed system of collective punishment known as ‘townland fining’.[[4]](#footnote-4) Townland fining was suspended in 18XX and attention instead turned to ways of reforming the taxation and regulation of distilling so as to increase compliance as well as to reduce obstacles to lawful production. This culminated in a major enquiry of 1823 carried out by HM Treasury into the taxation of distilleries in Ireland, and subsequently the repeal of the 1779 legislation and its replacement by a charge on the actual amount of spirit produced. Aeneas Coffey and his colleague Daniel Logie played a major role in these reforms, which we argue in section X below is rather more central than is generally appreciated.

Meanwhile, if the 1779 duty on estimated production had encouraged distillers to pursue maximum speed, a predictable response to the 1823 charge on actual production was for distillers to understate production in the hope of evading duty. In response to this risk, a series of inventors in the 1820s devised increasingly sophisticated methods of securing distilling apparatus from tampering, as well as working to improve the devices used by Excise officials to measure alcohol content at various stages of the distillation process. By this time Coffey had already moved onto the next stage in his career, but the records show that he had been involved in experimenting with anti-evasion technology by 1821 at the latest, and that these experiences formed an important part of his contributions to the HM Treasury enquiry of 182X.

Coffey left the Excise Department in 1824 and entered into business as a distiller first in Dublin and subsequently in London. There is limited evidence of his activities in the mid- and late-1820s, but all the indications are that he continued experimenting with distilling apparatus and that this sometimes took precedence over commercial considerations. It must have been during this period that he undertook the research for which he is most famous, in joining the search for a continuous distillation system and designing the version of this system that was later to be adopted globally. He obtained the patent for the “Coffey still” in 1830 and ironically had to obtain dispensation from the Excise regulations that he had helped to design, with continuous distillation remaining technically illegal – though accepted in practice – until well into the 1860s.

For present purposes, therefore, Coffey’s career can be presented in three stages. Prior to 1821, he was a senior Excise official who was remarkable for his ability and range of experience, and who had been at the forefront of the fight against poitín. Between 1821 and 1824 he was closely involved in the reform of the spirits excise and took a keen interest in the development of distilling technology. After 1824 he was an inventor who was able to capitalise on the technological knowledge that he had gained as an Excise official as well as the changing regulatory environment that he had helped to put in place. This career trajectory offers an unusually clear insight into a critical moment in the history of distilling in which the distortion of technological progress by poorly designed Excise regulations was recognised and reversed, allowing the invention of devices that are still used today.

**Gauging, the minimum charge and poitín**

The present chapter is intended as a history of tax and technology rather than a biography of Aeneas Coffey, for which the reader is directed elsewhere.[[5]](#footnote-5) Nevertheless, given the usefulness of Coffey’s career in tracking a route through an otherwise unworkably complex collection of material, it makes sense to begin with the first mention of Coffey that we have found in the Parliamentary Papers. This is a letter of 11 October 1802 from the Excise Office in Dublin updating HM Treasury on ‘the Duties on Paper Hangings and Auctions’ and stating that the Commissioners of Excise had ‘suspended James Walsh the Surveyor; and ordered Richard Starr into charge of the Survey, and Thomas Gill and Aeneas Coffey, two Gaugers to assist him …’.[[6]](#footnote-6) This indicates that even though Coffey’s name was to become indelibly connected with whiskey manufacture, he started his career with a more general Excise brief. It also suggests some recognition of his ability and trustworthiness even at this early stage.

He is likewise described as gauger in a list of the employees of Dublin City Excise for the year ending 5 January 1804, under the name ‘Eneas Coffee’.[[7]](#footnote-7) This document also contains useful summary of the work of gaugers and their immediate superiors, surveyors[[8]](#footnote-8):

The Duty of Surveyors of Excise is to inspect Stock and gauge at the respective Places given to them in charge within their Survey, to see that the several Officers under them execute their Duty with care and diligence; that the several Officers’ Books are properly kept, and that the regular Charges are made and brought forward; to examine and sign the different Vouchers, and see that they are [returned] in due time to the Collector's Office. The Duty of Gaugers is to stock their respective Walks at least twice a day; to make up the Charges from the Stocks taken on those Visits, and to make Weekly Returns of the same in a Voucher to the Collector, after being examined by the Surveyors, &c.

A list of officers from 14 February 1807 also lists ‘Eneas Coffee’ as a gauger, but this time clarified that his duties were solely concerned with ‘gross distillers’.[[9]](#footnote-9) Though the difference seems subtle, it is likely to have represented a professional advance. As Leadbetter had observed in the mid-eighteenth century:

The distillery is the very Apex, or highest Pitch that can be aimed at by man in Gauging; for it is not only required that he should be very expert in Gauging, but also in the manner of Book-keeping, and making up the Accoumpts; which is more difficult than any other Branch of this Art.[[10]](#footnote-10)

By 1 January 1810, ‘Æneas Coffee’ was being listed as a ‘Surveyor of Excise’ in Dublin City on a significantly higher salary. Only a few months later, though, everything had changed, as can be seen in a letter of 19 December 1810 from a Mr William Gregory of Excise and Taxes in Ireland concerning ‘Private Distillation’ (poitín making) in ‘the barony of Ennishowen’ (Inishowen, Donegal):

I have made a circuit of the barony of Ennishowen … Much as I had heard of the open manner in which this illicit traffic is conducted, yet the view of it astonished me. After leaving Buncrannagh a few miles, and entering into the mountains, there is scarce a village in which distillation is not carried on; this continues without interruption to the extremity of the coast ats Malin and Culdoff [Culdaff, Donegal]; near to the latter place, I saw a vessel loading with spirits for Scotland; there I met a gentleman of the neighbourhood, who is a Magistrate … and our presence gave no disturbance to the people bringing down their spirits to be put on board: they fear no force but the military; and that being the place where your officer Coffey, and the soldiers of the King’s county, were lately wounded, they are become more confident even in their opposition to them.[[11]](#footnote-11)

Before continuing with Coffey’s story it is worth pausing and taking stock. The spirits excise in Ireland in 1810 was extremely technical. The legislation was voluminous, regularly amended and presupposes a deep understanding of all aspects of the distillation process. In order to impose anything close to the correct liabilities on distillers, excise officials would have had to be highly skilled, experienced and vigilant for the many ways of concealing distilling operations and evading duty. This being the case, why would a recently promoted and evidently very able Surveyor have been moved from Dublin to risk his life in what was in 1810 one of the most dangerous and lawless places in the country?

In order to understand this more fully, it is necessary to rewind to 1779 and the enactment of a piece of legislation with the rather unassuming title of ‘An Act for Continuing and amending several Laws relating to His Majesty’s Revenue, and for the more effectually preventing of Frauds therein; and for such other Purposes as are therein mentioned.’[[12]](#footnote-12) The most important provision, section 20, also looks innocuous at first sight:

… every Distiller shall from the Day he or she shall set his or her Still at work be charged and pay Excise … at the respective Rates herein after mentioned, for Twenty-eight Days …

The problem starts to emerge when we look at section 21, which provides that certain distillers:

… shall be charged with, and shall pay Excise for four Charges of Low Wines for each Still for Twenty-eight Days after the Day on which such Distiller shall begin to distil …

Section 22 changes this figure to six for distillers in slightly different circumstances. So, what does all of this mean? Low wines are the ‘spirits of the first extraction’,[[13]](#footnote-13) or in other words, the produce of the first distillation in a traditional pot still, and they can be distinguished from ‘wash’ which is the fermenting mixture of yeast and mashed grains prior to distillation. In principle, the primary method of calculating spirits duty was based on a calculation of the amounts of wash or low wines used by a distiller,[[14]](#footnote-14) which necessitated close excise supervision though it was easier than trying to impose duty on the end product without effective methods of measuring alcohol content.[[15]](#footnote-15) Nevertheless, the duty had been widely evaded in the eighteenth century, for instance through the clandestine introduction of wash into a still without informing the excise authorities. Sections 20 to 22 therefore introduced a secondary method of calculating duty by estimating the minimum throughput of stills at four to six ‘charges’ of low wines in every 28-day period depending on the circumstances. This curbed evasion by ensuring that distillers could not claim to be processing less than these minimum quantities of low wines, though otherwise actual quantities would continue to form the basis of charge.[[16]](#footnote-16)

The problem with these apparently sensible provisions is that they quickly evolved into the primary method of assessment, with only especially vigilant excise officials taking the trouble to monitor the diminution of wash and low wines in line with the practice before 1779.[[17]](#footnote-17) This in turn triggered a race between distillers and legislators, in which the former would increase the speed of distillation in order to exceed estimated capacity and evade duty on the excess,[[18]](#footnote-18) and in response the minimum charge was repeatedly increased in order to keep pace with distilling practice. McGuire describes the consequences:

The minimum duty clause … was to become an uncontrollable monster. It caused the number of legal distilleries to fall catastrophically. The design of stills, working methods and the quality of the spirit were all affected. Evasion in legal distilleries was not checked and the number of illicit distilleries greatly increased. This minimum still charge fostered official corruption to a point where a regular system of fees, indistinguishable from bribes, was openly condoned by the Revenue Commissioners. Any distiller who did not conform to the customary dishonest practices could not survive.[[19]](#footnote-19)

One of the obvious consequences of this development was to make much of the ordinary compliance work of excise officials redundant. Why would an official, in a position to use the simple expedient of the minimum charge, instead undertake the arduous and potentially confrontational task of inspecting the throughput of wash and low wines, let alone more difficult tasks such as testing alcoholic strength or insisting on the securing of distilling apparatus from tampering? This point is centrally important because alcohol-testing and anti-tampering technologies were in their infancy throughout the entire period covered in this chapter, and the minimum charge slowed their development by bypassing the types of compliance task that they would have assisted.[[20]](#footnote-20) Conversely, as Aeneas Coffey was to become very well aware, improvements in these technologies were a prerequisite to getting rid of the minimum charge and replacing it with something more sensible, as eventually happened in 1823.

The minimum charge was to distort technological development in an even more damaging way. One of the consequences of the race to distil more quickly was to force out of business those distillers who were unable to keep pace with the continually increasing estimates of minimum still capacity. Many of the producers that survived increased in size,[[21]](#footnote-21) hence concentrating the licensed distilling industry into fewer hands. These larger units were obviously easier for excise officials to oversee than large numbers of small distilleries, but the potential for economies of scale and improvements to quality were undermined by rapid distillation techniques that were vastly fuel inefficient and prioritised duty evasion over the taste of the product. This is not to say that technological ingenuity disappeared in the period from 1779 to 1823. It is simply that it was encouraged in directions that were essentially pointless except as methods of gaming the minimum charge, such as the flattening of the shape of stills in order to increase the surface area that was exposed to heat,[[22]](#footnote-22) and adding large amounts of soap in order to prevent the additional heat from causing excessive frothing of the wash which might contaminate the distillate and clog up the still.[[23]](#footnote-23)

Alongside the increasing scale of surviving licensed distilleries, another consequence of pushing small producers out of business was a precipitate rise in the prevalence of poitín-making in some districts, particularly in mountainous areas with poor transportation.[[24]](#footnote-24) At first this appears to have been an unintended side-effect of the minimum charge and the incentive that it gave to rapid production. In the years following 1779, though, the authorities adopted a more deliberate policy of discouraging small stills, first by imposing a proportionately higher minimum charge for small stills and later by establishing a minimum size of 500 gallons for all new stills.[[25]](#footnote-25) These initiatives made some sense in terms of reflecting the higher risk of evasion from small stills but were enormously counterproductive to the extent that they drove smaller producers into outright illegality. The authorities made efforts to reverse this policy in subsequent decades and to make it easier to operate small licensed stills, but by this stage it was too late to make a significant dent in the illegal poitín industry.

The priority of the poitín maker was to avoid detection or, failing this, to ensure that the consequences of being caught did not threaten the viability of the business. This favoured rapid distillation but also portable apparatus, remote locations in which detection and enforcement would be difficult, bribes to corrupt excise officials and in extreme cases outright violence. In other respects, the rise of poitín in the late eighteenth and early nineteenth centuries cannot be seen as a technological advance and indeed many of the stills would have been extremely primitive. This combination of circumstances presented extreme challenges to vigilant excise officials, and was compounded by the open hostility of much of the rural population to excise control as well as the complicity of at least some landlords. As Coffey himself pointed out, the situation of poitín-making in remote and often mountainous and barren districts meant that substantial rents could be extracted from land that might otherwise have been next to worthless.[[26]](#footnote-26) In response to these challenges, a particularly unpleasant method of excise enforcement was introduced known as ‘townland fining’ whereby fines could be imposed upon the inhabitants of a locality if poitín distilling apparatus were discovered in the area, regardless of whether those liable for the fine had any involvement in or even knowledge of illicit activity. Moreover, there were wide powers for distraining the property of inhabitants when fines remained unpaid, including furniture and livestock, which in several recorded instances created extreme hardship for individuals who appear to have been entirely innocent.

This extended digression from the personal story of Aeneas Coffey allows us to understand the context in which an able and recently promoted surveyor of excise, who is known to posterity for technological innovation, was redeployed from Dublin to remote and dangerous parts of Derry and Donegal to risk his life enforcing the spirits excise against violent criminals using crude and makeshift apparatus. This posting was at the cutting edge of excise enforcement at the time and provided invaluable experience that Coffey was later to draw upon when contributing to wider enquiries into the Excise system. One of the first of these was the Select Committee on Illicit Distillation in Ireland, to which he gave evidence in 1816 relating to his activities in the Inishowen peninsula in Donegal. In response to the question whether he had ever been ‘ill treated in the barony of Innishowen’, Coffey painted a graphic picture:

I was indeed: ln November 1810, while in the act of destroying an unlicensed distillery at Carthage, in the barony of Innishowen, I was attacked by about fifty men, not one of whom I am sure ever saw me before; they fractured my skull, left my whole body one mass of contusion, and gave me two bayonet wounds, one of which completely perforated my thigh. I owed my life to the rapid approach of the military party, from which I had imprudently wandered a few hundred yards; but even their approach would not have been in time to save me, if my assailants had not been so numerous and eager as to impede each other’s efforts lor my destruction. I did not recover from my wounds for many months; and to this day I feel bad effects from them, which I never expect entirely to get rid of.[[27]](#footnote-27)

Coffey added that this attack had been carried out in broad daylight and was not isolated. Several excise officials had been murdered,[[28]](#footnote-28) that ‘upwards of 200 shots were fired’ on one excise party in 1815,[[29]](#footnote-29) that an excise official in Tyrone had been forced into a sack and carried off[[30]](#footnote-30) and that he had himself suffered a second although less serious attack in Letterkenny in 1815:

I recollect conducting some excise prosecutions in December last, in that town; I was cross-examining a witness in the large room of the inn, which room was very much crowded at the time, and a stone was thrown by some person of nearly three pound weight, which grazed my forehead, and shattered in pieces the door of a press in the room behind me; the room in which this occurred was so crowded at the time, that the persons who were about the man who threw this stone, must have made way for him, by pressing closer together for that purpose.[[31]](#footnote-31)

Despite these events, Coffey firmly believed that townland fining was an essential part of the struggle against poitín making and pointed out that the suppression and re-emergence of illicit distillation seemed to correlate with periods of operation and suspension of townland fining.[[32]](#footnote-32) He thought that a significant reduction in the level of duty might reduce the temptation to make poitín,[[33]](#footnote-33) but did not favour the outright abolition of townland fining which if anything might increase the need to rely on military force in the enforcement of excise duties.[[34]](#footnote-34) Interestingly, Coffey’s evidence to the Committee contains almost no reference to technology except for the practice of speeding up distillation,[[35]](#footnote-35) and as expected under the minimum charge system,[[36]](#footnote-36) there is no discussion of means of securing distilling apparatus or of technology which might have helped excise officers to measure the output of stills.

Coffey’s testimony to the Committee of 1816 contains a fleeting reference to the landlord Edward Chichester, who had in the previous year helped to protect some excise officials from physical harm. Coffey reports that his colleague Mr Collisson ‘speaks with gratitude … of the conduct of the Reverend Edward Chichester, a magistrate, who on that occasion interfered to prevail on the people to desist, and ran great risk of being shot.’ The same Edward Chichester was to have a unexpectedly significant influence on Aeneas Coffey’s career only two years later when he published a pamphlet entitled *Oppressions & Cruelties of Irish Revenue Officers, being the Substance of a Letter to a British Member of Parliament.*[[37]](#footnote-37) This is a long and often rather intemperate document of 128 pages, much of which comprises examples of alleged abuse and heavy-handedness on the part of excise officials. However, Chichester did have an underlying substantive point, which was the structure of excise regulation lent itself to abuse and violence, in particular the townland fining system, the high rates of duty and the other continued disincentives on setting up small licensed stills.[[38]](#footnote-38)

The response of the Irish Excise Department to Chichester’s allegations was also published in 1818 and was authored by none other than Aeneas Coffey.[[39]](#footnote-39) Most of the document is occupied with point-by-point rebuttals of Chichester’s arguments and examples of abuse and heavy-handedness, but this is combined with a more general defence of the existing regulation of small stills and of the townland fining system. Although some of Coffey’s points have force,[[40]](#footnote-40) the tone of the document is legalistic, of using technical arguments to counter Chichester’s more substantive criticisms of excise regulation. Coffey’s pamphlet also contains almost no reference to technology, which is curious in view of his later career and his recorded involvement in experimentation with anti-tampering devices as early as January 1821.

The legalism in Coffey’s writing did not go unnoticed by Chichester, who in reply cast repeated doubt on Coffey’s authorship in a second pamphlet of 1818.[[41]](#footnote-41) Coffey’s pamphlet is certainly likely to have been vetted heavily by senior colleagues,[[42]](#footnote-42) it also contains some incongruous passages such as the full-blooded defence of a collector of still-fines, Robert Newman, of whom Coffey was elsewhere heavily critical.[[43]](#footnote-43) Nevertheless, as Chichester himself admitted,[[44]](#footnote-44) it is likely that Coffey authored at least parts of the document published under his name, and indeed it seems overwhelmingly likely that he agreed with its support for townland fining.[[45]](#footnote-45) This does, however, leave open the question of why such an able and apparently scrupulously honest official would expend so much energy in defending a system with such obvious problems, in a way that in Rothery’s words ‘is not very convincing’.[[46]](#footnote-46) The clearest hint emerges not from the main lines of argument between Chichester and Coffey, but in a few scattered acknowledgements that a much wider set of reforms would be needed in order fully to address Chichester’s complaints. In Chichester’s words:

At present the grievances in suppressing illicit distillation are intolerable; and if that injurious trade were even extinguished by the means now used, the pressure must be continued in order to prevent its revival. The unlawful distilleries, however, are not likely to be annihilated without changing the whole construction of the present Excise regulations; and in the mean time the practice is becoming habitual to the people, whose minds are constantly excited by the spirit of gambling and desultory war which it creates.[[47]](#footnote-47)

The type of change to the excise regulations that might be needed was elaborated in a letter from Coffey to his superior of 20 April 1819, which refers specifically to Chichester’s second pamphlet:

Some persons propose to get rid of illicit distillation without the severity of the fining system, by dispersing small licensed stills throughout the country. … [These persons] object to the laws under which they are at present worked; because, for the security of the revenue, each still is charged with duty for a certain moderate quantity of spirits while at work; whereas these gentlemen require that the small stills should be unconditionally licensed, and that the state should depend for its revenue on whatever quantity of spirits might be discovered to have been made, by actual survey.[[48]](#footnote-48)

In Coffey’s view, then, Chichester’s proposals for excise administration brought into question not only the townland fining system but also the whole principle of the minimum charge. This is made explicit in the next section of the letter where Coffey explained that “[t]he plan is not, however, *new*. It was the law of Ireland until 1781 …”.[[49]](#footnote-49) He illustrated the “ruin that would probably result to the revenue from again resorting to it” with data from 1779, and continued as follows:

Such was the effect of endeavouring to collect the revenue on spirits in Ireland by survey alone, even when the duties were low, and the stills of large content. What it would be under the present high rate of duty, were every *peasant* authorized to keep a still of forty gallons, may be readily conjectured.[[50]](#footnote-50)

Coffey concluded his letter by predicting that:

… the revenue would suffer to an incalculable amount, and the country would return to that state in which it was when the still fine system was revived … but without any means to recur to, that at least I can foresee, calculated to meet the mischief that would thus be created.[[51]](#footnote-51)

We have cited this correspondence at length because it casts a rather different light on the competing claims of Chichester and Coffey in the previous year. The legalism and evasiveness of Coffey’s 1818 pamphlet did not display ‘extreme ignorance of the transactions of his own department’[[52]](#footnote-52) as is claimed in Chichester’s waspish second pamphlet. Instead, it can be seen as an attempt to ‘hold the line’, in the light of the potentially serious systemic consequences of accepting Chichester’s proposals.

Although this interpretation of the correspondence paints Coffey in a more sympathetic light, the attempt to hold the line was a failure. An Act dated 12 July 1819 suspended townland fining,[[53]](#footnote-53) and although it was not the first suspension, the system was never to be revived.[[54]](#footnote-54) Having essentially lost the argument, Coffey’s response was not to reopen old controversies but to pivot his attention to the question of how to ensure the viability of the Irish spirits excise in the absence of townland fining. This starts to explain how he became involved not only in technological innovation but also legislative design, which forms the subject matter of the next part of this chapter.

Before moving on, it is worth mentioning a rather poetic coincidence that helps to link these two stages in Coffey’s career. In a passage of Chichester’s second pamphlet that dealt with the difficulties experienced by licensed small distillers, he drew on the example of John Thompson of Carrickfergus in Country Antrim. Thompson had been granted a licence in 1813 for a small still but was refused a renewal of this licence in 1816 ‘on account of a larger still being about to be erected in the town of Belfast’.[[55]](#footnote-55) In the event, however, Thompson’s appeal against closure was successful, and as Rothery relates, ‘later we find that this same distillery was the site for some of Coffey’s experiments’.[[56]](#footnote-56)

**Technology and the 1823 Act**

Aeneas Coffey may have lost the argument on townland fining, but his warnings about the fragility of the spirits excise were prescient. The report of a seminal enquiry into Irish distillery revenue, dated 30 May 1823, painted a stark picture:

… although no measures have been hitherto devised which have proved successful, in enforcing the due collection of this Revenue, consequences have arisen, in certain districts of [Ireland and Scotland], most injurious to the public peace, and to the morals of the People: these evils have lately extended themselves so widely, and have assumed a character so alarming, that the further interference of the Legislature has become a matter of immediate and imperative necessity.

In Ireland … parts of the country have been absolutely disorganized and placed in opposition, not only to the civil authority, but to the military force of the government …

In other words, the system of 1779 had collapsed, and this collapse threatened more than merely the non-collection of excise revenues. The diagnoses of the 1823 report are sensible. There were tensions between using the spirits excise to raise revenue and to reduce alcohol consumption.[[57]](#footnote-57) The higher the duty, the greater the temptation to make poitín instead.[[58]](#footnote-58) The 1779 system encouraged rapid distillation which made the compliance work of excise officials extremely difficult.[[59]](#footnote-59) The relaxations of the rules for small stills were extremely complicated.[[60]](#footnote-60) Ultimately, the existing system was beyond repair:

The evidence of Mr. Coffey, an officer of Excise in Ireland, shows, that no doubt is entertained by the Excise officers in Ireland, of the evasion of duty by the licensed distillers to a great, and under the present law, irremediable extent.[[61]](#footnote-61)

As to the possible options for reform, the approach of the enquiry was to

… dispatch … the Irish officers of Excise, who were in attendance on this Board, to Scotland, with instructions to examine the operation of the Scotch Distillery Law, especially with reference to its possible extension to Ireland.

These officers were Aeneas Coffey, by then an inspector-general of excise, and Daniel Logie, an official of the same rank who also happened to be Coffey’s brother in law. Despite admitting to the inquiry on 29 January 1823 that they were ‘acquainted with the Scotch system … [m]erely from reading the Act of Parliament, and that not very lately’, Coffey and Logie worked rapidly and reported back to the inquiry on 29 March 1823.[[62]](#footnote-62) As their report describes, the Scottish charge was calculated partly on the basis of the spirits capable of being produced by the wash[[63]](#footnote-63) used by the distiller and partly on the basis of the spirits actually produced.[[64]](#footnote-64) If the wash could be measured in a sensible way, however, the subsequent checks on ‘the spirits actually produced’ could be treated as ‘minor checks to secure the duty on small excesses arising from unusually good fermentation’.[[65]](#footnote-65)

The emphasis on accurate measurement of the inputs used by distillers had the advantage of levying duty on what was actually distilled rather than what the Irish excise rules deemed a given still capable of producing. However, it reintroduced some of the challenges that had been suppressed in Ireland by the minimum charge of 1779.[[66]](#footnote-66) Excise officials would have to carry out a regular survey of the wash actually being used by distillers, which in turn required skill, vigilance, honesty and competent record keeping. At first sight this seems to bear out the warning in Coffey’s earlier pamphlet reply to Edward Chichester that abolishing the townland fining system would revive all of the problems of the previous system. However, this would be to miss the vital point that technology had greatly improved since 1779. For a start, there were increasingly sophisticated ways of attaching locks to distilling apparatus that would prevent or at least discourage the surreptitious introduction of wash by distillers without informing excise officials.

Even more importantly, there was increased confidence in the ability of excise officials to measure the alcohol content of wash, and hence to track more precisely how much spirit was likely to be produced as well as to use unexpected fluctuations in alcohol content as a way of detecting evasion. This was done by means of a ‘saccharometer’ which measures the gravity of the wash,[[67]](#footnote-67) or in other words the relative weight of the wash to an equivalent volume of water. This exploits the principle that alcoholic spirits are less dense than water, that a given volume of spirits will therefore be lighter than the same volume of water, and hence allows distillers and excise officials a convenient method of measuring alcohol content at various stages of production.[[68]](#footnote-68) The first prototype saccharometer is reported to have been invented in 1784,[[69]](#footnote-69) and the instrument became popular amongst distillers though it was obviously of limited relevance to Irish excise officials under the 1779 regime that levied duties on still capacity rather than on the amount of wash actually distilled.[[70]](#footnote-70) The saccharometer became a formal part of the excise process in Scotland in 1816, and was being constantly improved to the extent that the saccharometer cited by Coffey in 1823 (Allan’s saccharometer) was soon superseded by a superior model (Bate’s saccharometer) for at least some purposes.[[71]](#footnote-71)

In spite of these technological advances, Coffey and Logie were still extremely concerned by what they saw in Scotland, despite their provisional view that a Scottish-style system based on actual rather than estimated produce could be introduced in Ireland.[[72]](#footnote-72)

The unfavourable opinion we have felt it our duty to express of the Scotch plan of survey, makes it almost needless for us to add, that we do not think it would be suitable for Ireland. We scarcely even see any regulation that could be advantageously borrowed from it in framing a survey system lor Ireland, except that which prohibits brewing and distilling at the same time. But this is a regulation of inestimable value as a revenue check; and we are quite confident that an efficacious system of survey may be grounded on it.[[73]](#footnote-73)

Coffey and Logie were particularly concerned by the opportunities for evasion that they identified in the Scottish system. The first and more serious risk was that distillers would exploit gaps in excise enforcement in order to use stronger wash than had been declared to the authorities, circumventing the protection given to the revenue by the use of saccharometers and allowing them to produce a greater quantity of spirits than had been charged with duty.[[74]](#footnote-74) Coffey and Logie’s preliminary research suggested that this mode of evasion was indeed widespread.[[75]](#footnote-75) A second risk was the clandestine introduction of wash into the stills. Coffey and Logie did not believe that this was prevalent in large distilleries and found no evidence of it in small distilleries either, but considered that it was still worth improving locking devices for stills in case effective measures against the first type of evasion should encourage distillers to attempt the second.[[76]](#footnote-76)

These concerns led Coffey and Logie to the categorical conclusion that ‘the present Scottish system for collecting the duty on spirits, could not, with advantage, be introduced into Ireland …’. It seems a bit incongruous, then to read the following presentation of their work in the main inquiry report:

The result of the examination of the two systems by these officers, contained in their Reports in the Appendix,[[77]](#footnote-77) has confirmed the opinion which the course of our personal inquiries, had led us to form, that the desired uniformity of system would be best obtained by adopting the principle of the Law now existing in Scotland.[[78]](#footnote-78)

How is this apparent inconsistency to be resolved? The answer is that Coffey’s and Logie’s negative opinion of the Scottish system only tells us half of the story. The other half is that both officers had been hard at work making more positive contributions to the technological and regulatory challenges of replacing the minimum charge of 1779. The technological aspect of this requires a short excursus before we return to the design and enactment of the 1823 Act.

Aeneas Coffey and Daniel Logie were described in the proceedings of the 1823 inquiry as being close colleagues of Charles Hawthorne, Chairman of the Excise Board in Dublin.[[79]](#footnote-79) A few years previously, Hawthorne had been requested by the Chancellor of the Exchequer – presumably Nicholas Vansittart – to carry our experiments on an invention of a Thomas Pottinger that was intended to eliminate the opportunities for distillers to avoid excise duties whilst still allowing them an opportunity to test the alcoholic strength of the product.[[80]](#footnote-80) Hawthorne asked Coffey to superintend these experiments, and Pottinger himself requested that Logie should also be included.[[81]](#footnote-81) The exercise was carried out next to Pottinger’s house in Carrickfergus near Belfast, in distillery premises belonging to John Thompson who has already been mentioned and whose operations Excise had tried to close down in 1816.[[82]](#footnote-82)

As Coffey explained in 1823, Pottinger’s apparatus was unsuccessful but was capable of improvement:

… it appeared, that Mr. Pottinger’s mode of measuring would not answer the purpose; it entirely failed; it struck me, while we were carrying on the experiments, that there was a different mode which might answer, which was afterwards tried, and I wrote to Mr. Hawthorne, stating, that although Mr. Pottinger’s plan had failed, I did not give up the thing as altogether hopeless; I thought there was a contrivance which might answer the purpose; but that situated, as I then was, I wished he would send down other inspectors general, to examine the apparatus, because I became so much personally interested in the matter, as contriver of the new invention, that I did not wish to be the person to report on Mr. Pottinger’s. in consequence of this, Mr. Taylor, the examiner of gaugers books was sent and shortly after, Mr. Hawthorne came down himself to Carrickfergus.[[83]](#footnote-83)

This is the first clear evidence of Coffey’s talent as an inventor. A couple of short reports in the names of Taylor, Logie and Coffey, dated January and May 1821 respectively, provide further technical details of Coffey’s contributions.[[84]](#footnote-84) They also confirm that the interest of Excise in Pottinger’s apparatus, as modified by Coffey, was stimulated by its potential usefulness in a new approach to distilling in which distillers would have the freedom to use smaller stills, work more slowly, produce better quality spirits and increase fuel efficiency, and would in turn be subject to more effective modes of Excise survey; in other words, the type of system that was subsequently favoured by the 1823 inquiry.[[85]](#footnote-85)

The Pottinger-Coffey apparatus was subjected to further testing in Dublin, whereby Taylor and Logie invited distillers to find ways of defeating the security features of the newly designed equipment.[[86]](#footnote-86) To their surprise the distillers did succeed in producing some spirits without detection,[[87]](#footnote-87) which may be one of the reasons why Coffey’s evidence to the 1823 inquiry did not rely heavily on locking devices, despite recognising their importance for some purposes.[[88]](#footnote-88) What Coffey did instead, along with Logie, was to make a series of practical recommendations to the inquiry on what a reformed system of Excise supervision for Ireland might look like. The importance of their contribution is attested by a tantalising observation by a group of Irish distillers in a report eight years later:

… the surprising increase in the quantity of Spirits brought-into-the Revenue Accounts in [Ireland and Scotland] is owing, in the first place, to the reduction of the Duty, and, in the next, to the Code of Regulations framed by Messrs. Logie & Coffey for the Distillery Law of 1823; Regulations so admirably contrived, that they almost enforce themselves, notwithstanding the lamentable ignorance and inefficiency which pervade the present Excise Department in all matters connected with distillation.[[89]](#footnote-89)

We have not been able to locate any such Regulations in the modern sense of secondary legislation or a non-statutory code. However, it seems that no strict separation was made at that time between an Act of Parliament and a Regulation,[[90]](#footnote-90) which raises the possibility that Coffey and Logie were seen as the authors of at least part of the seminal Act of 1823 that followed the Excise inquiry. There is no cast iron evidence of this, and the claim is not often advanced in the secondary literature, but there is nevertheless sufficient resemblance between the recommendations of the two excise officials and the Act to suggest that Coffey deserves a reputation not only as a technologist but as a law reformer.

The starting point for this claim is a passage in Coffey’s and Logie’s report on the Scottish system that is included as Appendix 32 to the 1823 inquiry documentation. This passage is separated into two columns, labelled “Observations” and “Proposed Regulations”. An example is as follows:

|  |  |  |
| --- | --- | --- |
|  | Observations | Proposed Regulations |
|  | These regulations would prevent the occurrence of these extraordinary disproportions in the produce of the wash, which appears in the Scotch distilleries. | If the actual produce in the spirit-receiver shall be greater by [left blank] per cent than warranted by the original gravity of the wash, at the rate of one gallon per centum of spirits for every five degrees of gravity, the difference to be set forth as a charge against the distiller in a column of “undue excesses” … |
|  |  |  |

The precise role of this regulation within the overall scheme recommended by Coffey and Logie is not critical for present purposes. The point to note is that it forms a central part of their response to the deficiencies that they perceived in the Scottish system during their researches in the first few months of 1823, and also includes the recognisable phrase “undue excesses”. It is therefore as clear a marker as any of Coffey’s and Logie’s distinctive contribution to the 1823 inquiry. If this feature and phrase can be traced in the 1823 Act, this provides strong evidence that the work of these officials contributed in a direct sense to the design of the legislation. In the event, this tracing process is not difficult. Section 60 of the 1823 Act is too long to reproduce in full but here is an excerpt:

LX. And be it further enacted, That whenever the Quantity of Spirits which shall be actually distilled or produced … shall exceed the Rate of One Gallon and One fifth Part of a Gallon of Proof Spirits from each and every One hundred Gallons of such Wort or Wash, for and in respect of every Five Degrees of Gravity of such Wort or Wash which shall be attenuated … then … the Officer shall keep a distinct Account of every such excess Quantity, and shall set forth the same in his Book or Books, and in his Return or Charge against such Distiller under the head of “Undue Excesses”

There is insufficient space to repeat this process for each of Coffey’s and Logie’s recommendations, but the imprint of their work on the legislation is unmistakeable and substantiates the further remark of the Irish distillers that ‘The whole of Messrs. Logie and Coffey’s report … should be read by those desirous of fully understanding the present distillery regulations’.[[91]](#footnote-91)

The Duties on Spirits Act 1823 was enacted on 18 July, and indeed reflected the preference of Coffey and Logie for an amended version of the Scottish system, supported by the use of saccharometers and additional checks from the Irish system. As McGuire explains, the 1823 Act established the charge as the highest of three separate assessments: first, the attenuation of the wash[[92]](#footnote-92); second, the amount and strength of the ‘low wines’ produced after the first distillation[[93]](#footnote-93); and third, the amount and strength of the final spirits produced after re-distillation.[[94]](#footnote-94) Effectively the idea was to gain an accurate picture of what distillers were producing by comparing readings from different stages in the distillation process. The Scottish prohibition on brewing and distilling at the same time was introduced in Ireland, again in line with Coffey’s and Logie’s preference, and the rates of duty were lowered significantly.[[95]](#footnote-95)

Although some of these changes may seem quite technical, their consequences for the Irish industry were revolutionary. On the one hand, the Act provided for a credible method of levying duties on the actual operations of distilleries, and on the other hand, it repealed the minimum charge regime of the 1779 Act. This change involved much closer Excise supervision of distilleries,[[96]](#footnote-96) but in turn, it removed the incentives on distillers to work at the highest possible speed with the smallest possible number of stills. From now on, distillers would have a much greater choice of how to operate and could if they wanted work more slowly, with additional or larger stills, and with an eye to quality as well as speed.[[97]](#footnote-97)

It is at this point in the story that histories of Aeneas Coffey start to become more speculative on account of lack of evidence, and our own work is no exception. However, before we move on, it is worth noticing three features of his subsequent activity that cannot be found in the 1823 documents, and the absence of which may be quite significant. First and most importantly, the system of three assessments just described makes little sense when applied to the continuous distillation systems that were starting to emerge at the time, which did not require batches of low wines to be redistilled and which therefore made the second of the three assessments impracticable. This might be a mere detail of the interplay between legislation and fast-emerging technology, except for the curious point that Aeneas Coffey has ended up being the most famous – and indeed only widely remembered – inventor of continuous distillation apparatus. The fact that a visionary piece of legislation partly designed by Coffey does not make sense, when applied to continuous stills, suggests strongly that this technology was not part of his vision in 1823. Indeed, as we shall see, he subsequently had to seek dispensation from Excise in order to operate his own stills under the 1823 rules that he had helped to draft.

The other two missing features in the 1823 can be dealt with more quickly. There is no sense at any point that Coffey was approaching the final year of his time at Excise, or that he had any dealings with Robert Haig, a member of a famous whiskey family who was interviewed extensively by the inquiry and whose distillery at Dodder Bank in Dublin Aeneas Coffey was soon to co-inhabit.

**Distiller and inventor**

Only a few months after the enactment of the Duties on Spirits Act 1823, Aeneas Coffey submitted his resignation, as attested by a document cited by Rothery:

‘Friday 12th March, 1824. Aeneas Coffey, Inspector General of Excise in Ireland, having desired leave to relinquish as by his letter of the 20th December, ordered that he have leave.’[[98]](#footnote-98)

Coffey’s next significant appearance in the records is in 1830 when he submitted his application for a patent for his continuous distillation apparatus,[[99]](#footnote-99) which was to become dominant in the production of grain whiskeys and industrial alcohol, though the older style of pot still is still used to produce malt whiskeys. This leaves a six-year gap in which it is quite unclear what Coffey was doing, how he decided to start experimenting with continuous distillation or how he might have been influenced by recent reforms to the excise system. Rothery explains the position as follows:

There is a gap in the records until 1827. In that year there is a record of the purchase of 800 acres of land in Co. Kildare by Coffey, Logie and an Edward Mooney. At this point it appeared that Coffey had decided to retire from active life. Nevertheless, in 1828 he established the firm ‘Æneas Coffey and Co.’, which survives and flourishes to-day under a different name. The Dublin Directory for 1828 gives the Company's address as: Distillery Offices and Stores, 27 Sth. King Street, Dublin. In 1829 we find Coffey acting as assignee in a bankruptcy case in Co. Meath. His patent application entitled ‘Apparatus for Brewing and Distilling’ is dated 1830 and he describes himself as Æneas Coffey of the Dock Distillery, Dublin, Distiller. Unfortunately, the record of the previous five years is very incomplete and we have no surviving record of his preliminary researches.[[100]](#footnote-100)

This is one of the more scholarly attempts at detailing this period in Coffey’s life, but it is not quite accurate. There are official records of the amounts of wash processed and spirits produced in the mid-1820s, and although they are incomplete, an 1826 document shows a “Canal Docks Distillery” as processing just under 1.3m gallons of wash in the year to 10 October 1826 and producing just under 130,000 gallons of spirits. The restatement of these figures in an 1831 document confirms explicitly that Aeneas Coffey had been proprietor of this distillery in 1826, and there is also an 1828 document confirming the same for the year to 10 October 1827. A further document of 1826 records Aeneas Coffey as not distilling anything in the year to 10 October 1825, hence we can date the beginning of his production to late 1825 or early 1826. Given that distilleries cannot be set up overnight, this suggests that Coffey moved into distilling relatively quickly after leaving Excise.

The Canal Docks distillery was located very close to the modern Grand Canal Dock DART station in Dublin, between Barrow Street, Grand Canal Street and the Grand Canal Basin. It is also very close to the point at which the minor south Dublin river, the river Dodder, flows into the Liffey and then into Dublin Bay. This has led a number of observers, including the present authors, to believe that the distillery is the same as that described elsewhere as the smaller of the two Dodderbank distilleries,[[101]](#footnote-101) the other of which was located less than a mile away near the modern Lansdowne Road stadium.[[102]](#footnote-102)

In the major 1823 inquiry report, both Dodderbank distilleries were listed as being under the proprietorship of Robert Haig; in a further major 1834 report, they are listed as being owned one by Robert Haig and one by Aeneas Coffey. However, all of the intervening documents refer to a single Dodderbank distillery owned by the Haig family, with the Canal Docks distillery being listed under Coffey’s name, later described by him as the Dock Distillery. The evidence is not unequivocal, but we therefore believe the smaller Dodderbank distillery, the Canal Docks distillery and Dock Distillery to have been the same place, and moreover in nearly the same location as the still manufactory at 3 Barrow Street with which Coffey was later associated. The complexity of Coffey’s distilling operations is terminological rather than real.

We will return to the Haigs shortly, but first, it is worth returning to the basic question of what it was that Coffey resigned from Excise in order to do. The lack of evidence on this point means that much of the secondary literature is extremely speculative, but we are unconvinced by the oft-repeated claim that Coffey entered into the distilling industry in order to experiment, ran a small concern and had no real commercial ambitions.[[103]](#footnote-103) The evidence is certainly that the Canal Docks distillery was one of the smaller in Dublin, yet distilling 1.3m gallons of wash in a single year is still a substantial undertaking. The more convincing explanation is the simpler one, that one of the key arguments in favour of the 1823 reform was that it would allow smaller competitors to enter the market for licensed distilling,[[104]](#footnote-104) that Aeneas Coffey was one of the very best placed individuals to know exactly when and how to take advantage of this new opportunity, and that he saw the ability to continue experimenting as an added bonus to his new venture. In particular, there is no evidence whatsoever that he handed in his notice to Excise in December 1823 in order to pursue continuous distillation, which would in any case be quite the turnaround from recommending in March 1823 a revolutionary new set of Excise rules without appearing to take continuous distillation into account whatsoever.[[105]](#footnote-105)

If there is no evidence that Coffey paid serious attention to the application of continuous distillation to whiskey manufacture in the early 1820s, his interest in anti-tampering and measuring apparatus is well-documented and has already been reviewed above.[[106]](#footnote-106) It would have been understandable for Coffey to have wanted to pursue further experiments in this direction after 1824, perhaps in order to secure a more sizeable financial reward than would have been possible as an Excise official. However, except to the extent that he was to include security features in his designs for continuous distillation, there is little evidence that he attempted to make money out of locking devices. The coverage in the Excise archives of developments in this area focus on a protracted and occasionally quite entertaining rivalry between a Mr Pontifex and a Mr Rudkin,[[107]](#footnote-107) whilst Given explains that Excise ultimately adopted as standard the locks of Andrew Gottlieb.[[108]](#footnote-108) The close resemblance of these to the design developed by Coffey following the Pottinger experiments was pointed out by Logie in 1834,[[109]](#footnote-109) but Coffey seems neither to have sought to nor to have received the credit from anyone else. This again supports the simplest explanation, that Coffey left the Excise service in order to become a distiller, taking advantage of the new rules that he had advocated and which made entry into the industry easier than it had been for over 40 years.

The importance of this 1823 Act is not only that it facilitated competition. It did so on grounds other than the speed of production. The reader will remember that under the pre-existing system, distillers were charged a fee based on the estimated production of their still, with an additional charge on actual production that was largely nominal in practice. This encouraged them to work as fast as possible, in order to exceed the estimate and to evade the duty on the excess. After 1823, the minimum charge was abolished and duties were levied on actual production alone, which left ‘the manufacturer in a great measure at liberty to distil spirits of the quality suited to the taste of the consumer, by a process comparatively economical and convenient …’.[[110]](#footnote-110) Of course the technological incentives under the old system had been anything but economical and convenient, and had encouraged enormous fuel waste, high temperatures, the addition of soap and sometimes sulfuric acid to the wash and the flattening of stills in order to speed production.[[111]](#footnote-111) One of the important freedoms created by the 1823 Act was therefore to develop the technology of stills in ways that furthered objectives other than speed. The same point can be put the other way around by saying that the 1779-1823 system severely suppressed and distorted technological development, and that the removal of this impediment in 1823 offered distillers the overdue freedom to experiment with ways of making better whiskey more efficiently.

Our proposal is therefore to reverse the standard but unevidenced narrative that Aeneas Coffey left Excise in order to experiment and operated a distillery business as a sideline. Instead, we suggest that he worked as a distiller for the usual reasons of wanting to produce and sell whiskey, and that the new rules not only made this possible but made it commercially viable to pursue technological advances that would have been largely a waste of time – or at most of academic interest – under the old system. The advantage of this interpretation is that it makes sense of Coffey’s career direction without the evidential leaps of existing theories, but it still does not explain how and when he started to work on continuous distillation. The evidence really does run out at this stage, so the most that we can do is to point out that by this stage Coffey was almost as well-networked as it was possible to be without being born into one of the major whiskey families. Not only had he been a close colleague of Charles Hawthorne, as detailed above[[112]](#footnote-112); we have also seen that his distillery was in such close proximity to the Haig-owned Dodderbank distillery that some reports describe them as being in the same place.[[113]](#footnote-113)

The Haigs were a Scottish distilling family who had interests in Ireland and were also closely related to the Stein distilling family, whose most recent famous member is the former Prime Minister, David Cameron.[[114]](#footnote-114) There seems to have been an element of competition between the Haigs and the Steins,[[115]](#footnote-115) but the important point for present purposes is that Robert Stein was one of two British inventors who secured a patent for continuous distillation before Aeneas Coffey, the other being a rectifying distiller of French origin named Jean Jacques Saintmarc, sometimes also spelled St Marc.[[116]](#footnote-116) All the evidence reviewed so far suggests that Aeneas Coffey was a man with an enquiring mind and who would have wanted in any case to keep abreast of technological developments. Yet it is tempting to speculate that he might have heard of Stein’s inventions through his close neighbours at the Haig distillery and then set about improving them as had had done with Pottinger’s inventions several years previously. This interpretation is supported by the fact that the Haig-owned Dodderbank distillery was subsequently one of the first adopters of the Coffey still,[[117]](#footnote-117) but is also consistent with the contents of Coffey’s patent.

The basic advantage of continuous stills, as the name suggests, is that they remove the need to process wash in batches. The older pot still design requires the distiller to introduce a batch of wash into the still, the distillation of which makes an intermediate product known as ‘low wines’, which are then re-introduced into the still a second time for redistillation. Irish pot still whiskey is typically triple distilled. By contrast, a continuous still allows spirits to be produced in one operation, with wash being added and spirits being produced continuously rather than on a batch basis. The St Marc still was patented in 1825,[[118]](#footnote-118) and was not technically a continuous still but rather a pot still with a rectifier installed on top,[[119]](#footnote-119) thus allowing spirits to be distilled and redistilled in one operation but presumably still in batches. Robert Stein was granted patents in 1827 and 1828, and his system [DMDC to elaborate]. Aeneas Coffey’s own system was patented on 5 Aug 1830 and [DMDC to elaborate with any necessary technical detail relegated to footnotes including resemblance to Cellier-Blumenthal].

Continuous distillation has significant efficiency savings over pot still distillation and allows high-purity spirits to be produced cheaply. It has accordingly become dominant in industrial distillation as well as the production of grain whiskeys and various other spirits. This purity comes at the expense of a loss of some of the flavour of whiskey, and therefore pot still distillation remains in use for malt whiskey production. Almost all continuous stills in use today are variations on Coffey’s original design. The story of how his invention became dominant is related elsewhere and has only a limited connection with excise duties, but it is interesting to note for present purposes that Coffey’s skill as an inventor is entirely of a piece with his skill as an administrator and legal reformer. In no part of his career was Coffey the first person to come up with an entirely original scheme, and the idea that he was a genius ‘blue-sky’ thinker seem quite wide of the mark. What he excelled at was optimisation of existing ideas, or perhaps the ‘development’ part of ‘research and development’.

This can be seen throughout Coffey’s changing career. As a mid-ranking official in the northwest of Ireland, he was almost embarrassingly persistent in his defence of the moribund 1779 rules and their enforcement against poitín makers through the townland fining system, but he had a clear vision of how they could be made to work tolerably well. Once the demise of these rules an their replacement by a version of the Scottish system became inevitable, Coffey was unenthusiastic but had such a deep understanding of how to make the new system workable that many of his recommendations were translated almost unaltered into the 1823 legislation. He did not invent Pottinger’s locking system but knew how to alter them in order to make them workable, even if Andrew Gottlieb took credit for the system that was ultimately adopted by Excise. Finally, the principle and much of the technical detail of continuous distillation predated Coffey’s own involvement, but he was the individual who knew how to turn a good idea into a practical success. None of this is exactly blue-skies thinking, but the sheer consistency of his ability as an administrator, law reformer, distiller and inventor is extremely impressive and fully justifies his high reputation.

There is one final moment of comedy before Coffey’s story passes beyond excise duties and therefore beyond the scope of this chapter. The reader will remember that the 1823 system, based on Coffey’s and Logie’s recommendations, required measurements to be taken of the wash introduced into the still, the low wines produced after the first distillation and the final spirits produced. The Coffey still, in common in this respect with the Stein and Saintmarc stills, does not produce low wines and hence cannot easily be assessed under the 1823 rules. Aeneas Coffey wrote to the Commissioners of Excise on 26 July 1832 in a letter that is worth reproducing in full because it ties together his interest in anti-evasion, locking technology, excise rules and technical invention.

Pray it please your Lordships. I am the inventor of a new distilling apparatus whereby much fuel is saved and spirits of great purity are manufactured, for which I have obtained the Patents for England, Scotland, Ireland and the Colonies.

This apparatus, in common with all others constructed on modern principles, converts the wash into finished spirits at one operation, and its use is in consequence liable to be obstructed by a regulation in the Excise Law, which, being founded on an assumption that finished spirits could not be made by a single distillation, has chalked out the manner in which the subsequent distillations (presumed to be necessary) are to be carried on.

Under this regulation spirits made with my apparatus, although running from the worm perfectly pure and of full strength in the first process, must be conveyed into what is technically called the "Low Wines Receiver", and must undergo the form of a second distillation before they can find their way to the Receiver for finished spirits – a proceeding trying and vexatious as regards the Manufacturer using the improved apparatus, while as a revenue regulation it is the very reverse of useful, inasmuch as the law makes an allowance of 5 per centum between the charge arising from the Low Wines Receiver and that from the Finished Spirit Receiver, and to that extent affords opportunities for evasion, which would not exist were the spirits seen directly into the latter vessel.

Your Lordships were pleased some time hence to authorise the Excise Department to dispense with this regulation as to distillation in the distilleries wherein the patent apparatus commonly called St Marc's Still is used.

More recently this dispensation has been extended to the patent apparatus of Mr Robert Stein of Scotland and I come now before your Lordships an honourable supplicant for a similar indulgence.

I beg respectfully to to observe that what I ask, although it is absolutely necessary to the fair and advantageous use of mine as well as St Marc's and Stein's apparatus, is no relaxation of any existing security for the Revenue, but the very contrary. I expect that every distiller who may adopt my apparatus will be required to provide the proper fastenings and securities for preventing the surreptitious introduction of wash – every fastening and security, in short, that is required in the ordinary apparatus. The boon I ask is, that the Manufacturer using the apparatus thus secured may be allowed to put his perfect and finished spirits into the Receiver provided for finished spirits, without being compelled to distil them unnecessarily again. And so far is this from being objectionable in a Revenue view, that I will venture to say, were a new law now about to be made on the subject, every intelligent Excise Office would recommend that it should be made compulsory on distillers using these improved stills to do that which I am now asking permission to do, viz - to convey the finished spirits produced by these stills at once into the locked up Spirit Receiver.

Respectfully submitted by Your Lordships' obedient and faithful servant Aeneas Coffey Dock Distillery, Dublin. 26 July 1832.[[120]](#footnote-120)

Coffey’s request to be spared the consequences of his own rules was approved on 17 September 1832, although as McGuire notes, continuous distillation remained technically illegal until the legislation was finally amended in 1860.[[121]](#footnote-121)

**Conclusion**

The period from 1779 to 1823 was an extraordinary period, not exactly of interaction between tax and technology but rather the distortion of technological development by well-intended tax rules that did not work properly. The imposition of a minimum charge based on estimated still capacity encouraged extreme speed in distillation at the expense of enormous wastage, modifications of stills that were otherwise useless, the use of soap and sulfuric acid in production and ultimately a poor-quality product. The 1823 reforms that imposed duty on actual production were revolutionary, but rather than giving any positive stimulus to invention, they should be seen more simply as removing the unfortunate incentives of the old system, allowing technology to develop at its own pace with much-reduced interference from the excise rules. Aeneas Coffey was intimately involved in every stage of this story and has offered an invaluable window into a formative period in the history of whiskey. It is ironic that he is best remembered for an invention that was technically illegal under the rules that he had recommended only seven years previously. Nevertheless, this seems rather typical of a man who was not always conspicuous for forward-thinking but who was invariably able to rise to the occasion.

1. This chapter is about Ireland, so the Irish spelling ‘whiskey’ is used instead of the Scottish spelling ‘whisky’. [↑](#footnote-ref-1)
2. [Provide legislative reference]. [↑](#footnote-ref-2)
3. [Chichester but also elsewhere]. [↑](#footnote-ref-3)
4. [Cite Rothery and others, cross-reference to coverage below]. [↑](#footnote-ref-4)
5. Citations but note low quality of some of these. [↑](#footnote-ref-5)
6. Page 98 and 99 of 1805 report. [↑](#footnote-ref-6)
7. 1809 document 176-7. [↑](#footnote-ref-7)
8. 178-9. [↑](#footnote-ref-8)
9. ‘1806’ document p 252. [↑](#footnote-ref-9)
10. Cited in Ashworth p 223. [↑](#footnote-ref-10)
11. 1812 doc 25-26. [↑](#footnote-ref-11)
12. 1779 Act title. [↑](#footnote-ref-12)
13. Morewood *Inebriating Liquors* p560 [↑](#footnote-ref-13)
14. McGuire p 103. [↑](#footnote-ref-14)
15. McGuire p 99, also see material on hydrometers and saccharometers. [↑](#footnote-ref-15)
16. McGuire p 127. [↑](#footnote-ref-16)
17. McGuire p 130-4. [↑](#footnote-ref-17)
18. Use of word evade is proper given that it was only a minimum charge. [↑](#footnote-ref-18)
19. McGuire p 127-8. [↑](#footnote-ref-19)
20. Though still useful for distillers, see eg McGuire 136. [↑](#footnote-ref-20)
21. McGuire p148. [↑](#footnote-ref-21)
22. Morewood 573. [↑](#footnote-ref-22)
23. Morewood 667, McGruite 179 [↑](#footnote-ref-23)
24. McGuire 394. [↑](#footnote-ref-24)
25. McGuire 133-4, can also find legislation if needed. [↑](#footnote-ref-25)
26. Coffey tract. [↑](#footnote-ref-26)
27. 1816 p 115 [↑](#footnote-ref-27)
28. 1816 p 122 [↑](#footnote-ref-28)
29. 1816 p 111 [↑](#footnote-ref-29)
30. 1816 p 115 [↑](#footnote-ref-30)
31. 1816 p 114 [↑](#footnote-ref-31)
32. 1816 p 109-111 [↑](#footnote-ref-32)
33. 1816 p 124 [↑](#footnote-ref-33)
34. 1816 p 123. [↑](#footnote-ref-34)
35. 1816 p 127 [↑](#footnote-ref-35)
36. Cross-refer above. [↑](#footnote-ref-36)
37. Chichester I reference. [↑](#footnote-ref-37)
38. Chichester first few pages. [↑](#footnote-ref-38)
39. Cite Coffey pamphlet. [↑](#footnote-ref-39)
40. Eg the potential for Chichester to gain from illicit distillation. [↑](#footnote-ref-40)
41. Second letter p3 and elsewhere. [↑](#footnote-ref-41)
42. Rothery p 56. [↑](#footnote-ref-42)
43. Coffey pamphlet 49 ff, Chichester II 31 ff, 1819 document on Newman. [↑](#footnote-ref-43)
44. Chichester II p 3. [↑](#footnote-ref-44)
45. Cross-refer to his evidence to the Select Comm. [↑](#footnote-ref-45)
46. Rothery p 56. [↑](#footnote-ref-46)
47. Chichester 95-96. [↑](#footnote-ref-47)
48. Coffey 1819 letter to Hawthorne p.3 [↑](#footnote-ref-48)
49. Coffey 1819 letter p 3 emphasis in original. [↑](#footnote-ref-49)
50. Coffey 1819 letter p 3 emphasis in original. [↑](#footnote-ref-50)
51. Coffey 1819 letter p 4. [↑](#footnote-ref-51)
52. Chichester II 58 [↑](#footnote-ref-52)
53. 59 Geo. 3. c. 98 but see other legislation in the timeline. Dawson p 285. [↑](#footnote-ref-53)
54. Use Dawson to nod to the emergence of the Revenue police here, act as hook into future Stebbings piece. [↑](#footnote-ref-54)
55. Chichester II 41, see also 1816 Select Committee 84. James Hewitt licence granted inadvertently. [↑](#footnote-ref-55)
56. Rothery p 56. [↑](#footnote-ref-56)
57. 1823 p 4 [↑](#footnote-ref-57)
58. Ibid. [↑](#footnote-ref-58)
59. Ibid, 6. [↑](#footnote-ref-59)
60. Ibid, 7. [↑](#footnote-ref-60)
61. Ibid, 8. [↑](#footnote-ref-61)
62. Appx 32 1823. [↑](#footnote-ref-62)
63. Cross ref to definition above. [↑](#footnote-ref-63)
64. 1823 p 99. [↑](#footnote-ref-64)
65. Ibid. [↑](#footnote-ref-65)
66. This is consistent with Coffey’s warning in his reply to Chichester, cross-refer. [↑](#footnote-ref-66)
67. The fermenting mixture of yeast and mashed grains, cross-refer above. [↑](#footnote-ref-67)
68. The usual name for instruments that gauge the gravity of spirits is ‘hydrometer’. A saccharometer is a type of hydrometer that is specially adapted for distillers’ wash: 1823 p13, 330, Morewood p 684, McGuire 59. [↑](#footnote-ref-68)
69. Morewood 684. [↑](#footnote-ref-69)
70. McGuire p 60 “adjunct”, see also 1823 305 and 307 which give an indication of what this means. [↑](#footnote-ref-70)
71. McGuire 62, Morewood 684, though note that Allan’s still being used in 1840: see Thomson pamphlet of that date. Refer to parallel technological and legislative developments in standard hydrometers that measure strength of finished spirits in Ashworth, though not relevant to this story and will tend to obscure. [↑](#footnote-ref-71)
72. 1823 Appx 30 p. 97, 29 Jan 1823, survey based on Scottish system could work. [↑](#footnote-ref-72)
73. 1823 105. [↑](#footnote-ref-73)
74. 1823 102-103. [↑](#footnote-ref-74)
75. 1823 102, 110-11. [↑](#footnote-ref-75)
76. 1823 103. [↑](#footnote-ref-76)
77. This relates to Appendices 32 (written by Aeneas Coffey and Daniel Logie) and 92 (written by the Scottish excise officials James Watson and John Wharton). [↑](#footnote-ref-77)
78. 1823 13. [↑](#footnote-ref-78)
79. 1823 74. [↑](#footnote-ref-79)
80. 1823 77, 1821 January p 1, Kerr article p 33. [↑](#footnote-ref-80)
81. 1823 77. [↑](#footnote-ref-81)
82. Cross-refer above. [↑](#footnote-ref-82)
83. 1823 77. [↑](#footnote-ref-83)
84. Jan and May 1821. [↑](#footnote-ref-84)
85. May 1821 pp 4-5. [↑](#footnote-ref-85)
86. 1823 77, note dispute 77-78. [↑](#footnote-ref-86)
87. 1823 77. [↑](#footnote-ref-87)
88. 1823 95, 98, 103, 106. [↑](#footnote-ref-88)
89. 1831 20 (fn). Note that this is from Irish distillers so quite positioned. [↑](#footnote-ref-89)
90. For instance, the preamble to a contemporary Act of Parliament on English distillation, the Duties on Spirits Act 1825, (6 Geo. 4) C A P. LXXX., explains that the function of the legislate was ‘to repeal the Duties payable in respect of Spirits distilled in England … to impose other Duties in lieu thereof; and to provide other Regulations for the Collection of the said Duties …’. These regulations are contained within the body of the Act rather than being enacted separately as secondary legislation. [↑](#footnote-ref-90)
91. 1831 again. [↑](#footnote-ref-91)
92. Cross-refer to tech explanation of this above. [↑](#footnote-ref-92)
93. Ensure technical explanation given. [↑](#footnote-ref-93)
94. McGuire 215-16. [↑](#footnote-ref-94)
95. [↑](#footnote-ref-95)
96. McGuire 217, think Ashworth also says this. See also key passage at McGuire 223. [↑](#footnote-ref-96)
97. 1823 p 13 [↑](#footnote-ref-97)
98. Rothery p 58. [↑](#footnote-ref-98)
99. Rothery Appendix. McGuire 39. [↑](#footnote-ref-99)
100. Rothery p 58. [↑](#footnote-ref-100)
101. McGuire 342, Kullmann, lost Distilleries of Ireland. Three Whiskies and a Coffey, Author(s): Kurt Kullmann, Source: Dublin Historical Record, Vol. 71, No. 1 (Spring / Summer 2018), pp. 75-84, Published by: Old Dublin Society, Stable URL: https://www.jstor.org/stable/44984624, Accessed: 23-04-2022 11:48 UTC. [↑](#footnote-ref-101)
102. Strictly Aviva. [↑](#footnote-ref-102)
103. Find citations. [↑](#footnote-ref-103)
104. Ie because didn’t have to distil at breakneck speed, only paid for what you actually made, less of a strict decision between being enormous and making poitín. [↑](#footnote-ref-104)
105. Cross-refer above and below. [↑](#footnote-ref-105)
106. Find evidence of his interest in sweetened liquor measurement, also some of the secondaries on locking eg the Given PhD. [↑](#footnote-ref-106)
107. Cite TNA docs. [↑](#footnote-ref-107)
108. Given PhD 168, note Logie trying to do the right thing. [↑](#footnote-ref-108)
109. Given. [↑](#footnote-ref-109)
110. 1823 p 13 on relevant aspects of Scottish system that were adopted for the 1823 Act. [↑](#footnote-ref-110)
111. Ref, note that flattening had been prohibited by Act of Pt. [↑](#footnote-ref-111)
112. Cross-reference. [↑](#footnote-ref-112)
113. Cross-reference. [↑](#footnote-ref-113)
114. Reference needed. [↑](#footnote-ref-114)
115. 1834 in Stein evidence. [↑](#footnote-ref-115)
116. Sometimes referred to as St Marc. [↑](#footnote-ref-116)
117. Reference. [↑](#footnote-ref-117)
118. Morewood p 635. No, even Morewood is guessing. It’s 28 June 1825 as per Bennet Woodcroft. [↑](#footnote-ref-118)
119. 1909 Appx 251. [↑](#footnote-ref-119)
120. TNA own transcription from copperplate. [↑](#footnote-ref-120)
121. McGuire 233 and 243. [↑](#footnote-ref-121)