



This evocative view of the interior of the ticket office at Rhyll was taken officially in the late 1960s and illustrates perfectly the contents of an unreformed 'Edmondson' office. Two booking windows were in regular use here, that nearer the camera for the down direction (towards Llandudno and Holyhead), the one in the background, where the clerk is standing,

for up stations to Chester and beyond. Relevant tickets would have been arranged in the racks to suit these two positions: note the greater number of tickets stored near the far window which served more destinations. At the extreme left notice that the bottom row of the rack is arranged to store a greater number of tickets for popular destinations (which would

have included Colwyn Bay and Llandudno). The customary layout of equipment, including dating presses, cash drawers, calendar and the ubiquitous bulldog clips holding special notices are seen. In this picture alone some 400 different types of ticket are visible. All this complexity can now be dealt with by a single, simple machine. (Author's Collection)

'PLEASE SHEW ALL TICKETS!' THE LONG LEGACY OF THOMAS EDMONDSON

It is given to few people to have their family name immortalised as a generic title: W. H. Hoover, László Biró and John Loudon McAdam (*sic*) come to mind, but in railway circles one name stands out, that of Thomas Edmondson (1792-1851). If railways were

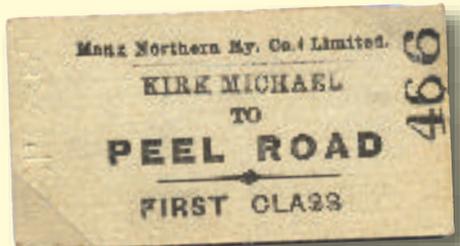
BY GEOFFREY SKELSEY

'Britain's gift to the world', Edmondson's ticket system was almost as universal. Apart from British-influenced undertakings in the Empire, Edmondson tickets found at least a toehold in the republican Americas and were widespread in Continental Europe. 170 years after the system was first established, this article outlines its distinguishing features and some of its many applications.

The theory of ticketing

Any transport ticketing system needs to ensure that a remote official accounts for journeys sold and hence cash received, transactions often being unsupervised. The system also needs to ensure that a passenger is certified to undertake travel, as well as any other entitlements, to the extent only of the value purchased. Both principles need to be capable of systematic audit and the ticketing process needs to be speedy, reliable and cheap. Each ticket must therefore be designed to inform the passenger — and railway staff — of the exact itinerary for which payment has been made and other considerations such as the class of travel,

the category of traveller, and the tariff applicable. To facilitate regulation of traffic and prevention of fraud, the ticket should be



In their early days Edmondson-style tickets were austere and contained the minimum information. This elegant Manx Northern Railway ticket would have been printed by Waterlow & Company in far older style some 70 years before its issue in September 1960, long after the railway had been absorbed by the larger Isle of Man Railway and indeed after Peel Road station had been closed! The ticket carried an advertisement on the back and was dated with impressed characters rather than printed ones.



Class of travel was a vital aspect of the passenger ticket and was important in an era of more pronounced social distinction, when three or more classes were normal throughout the railway network. This Festiniow Railway ticket is prominently marked 'Parliamentary', the cheap fare mandated by the Railway Regulation Act 1844. Section VI of the Act required the operation of the so-called 'Parliamentary Train' over all lines opened after 1st November 1844, running at not less than 12mph inclusive of stops, at a third class fare of no more than one [old] penny a mile. The FR issued Parliamentary tickets until 1924, but seldom discarded its withdrawn stocks before 1955.





The ticket dating press was a long-lived part of the Edmondson process, using removable type and an inked ribbon to print the date. Alternative versions, which impressed the date unalterably, were also produced by Edmondson and other firms. (Author)

designed to be easily read and identified by inspecting staff, sometimes hastily and in poor light.

The Edmondson ticket fulfils some of these purposes better than others. For example, the limited size, especially of two-coupon return tickets, prevents a full or even partial statement of the conditions of issue and also limits the extent of routing and other information which could conveniently be displayed, one reason for the use of large-format paper tickets in some circumstances. On the other hand the small size facilitated safe-keeping (in earlier times at least) in hat-bands and gloves!



Transition between successive railway administrations inevitably meant a period of design instability for passenger tickets. After 1948 the old GWR printing works produced tickets largely to pure GWR form apart from the title. Even the compositor's initials (in this case 'W.D.', for William Davis) still appear, as a precaution against fraud. The duplication of the station names in small type made it possible to cut the ticket diagonally for issue at half fare to a child. Railways were generally required to state fares on tickets from 1889 (but they were often not subsequently corrected, as here).

Simple transport applications require little elaboration of ticketing: payment can be certified by reusable metal tokens and these were employed in canal and turnpike operations and on some early railways such as the Leicester & Swannington and London & Greenwich. This principle continued on some flat-fare rapid-transit systems of North America where no ticket, as such, was required but a token activated entry gates. Conversely complex travel itineraries, with other entitlements such as meals and accommodation, required a sequence of vouchers certifying each requisite: this remained the practice throughout the lifetime of ocean passenger shipping and was used for much (but not all) international railway travel. Between these extremes lies the territory colonised by Edmondson, journeys involving one or more operators, usually between fixed points, with provision for different tariffs, classes of travel, eligibility and conditions of use. Such interrelated factors are all expressed in the appearance of the tickets themselves. What is most remarkable is that the original concept expanded into what would later be called a complete business system, for the simple, standardized ticket was, as we shall see, adapted to certify a multitude of purposes apart from travel.

Edmondson's life and invention

Only the salient details need be given here of Edmondson's rich personal, business and religious life. Born to a Quaker family, his career began with apprenticeship to a cabinet-maker in Lancaster, but his subsequent business failed and at the relatively late age of 44 — seeking to repay his creditors — he became in 1837 clerk-in-charge at recently-opened Milton station on the Newcastle & Carlisle Railway. (Milton became Brampton Junction in 1870 and remains open.) Most early railways presumably followed the established ticketing techniques of road and shipping operators, and the turnpike trusts and canals, in issuing paper permits or receipts analogous to waybills. The station clerk wrote out particulars of the passenger, the train, the destination, the fare paid and the date on vouchers printed in multiple on each page of a ledger. He tore a voucher out for the traveller, repeating the data on a counterfoil which was retained in the ledger. Apart from its weakness from an audit point of view, the drawbacks of the ledger system were practical ones: the volume and pace of railway traffic far exceeded that of predecessor modes, requiring rapid issue of tickets if the whole system wasn't to grind to a standstill. In addition, as the length of journeys and range of destinations grew, more certain certification of receipts and a means of rapidly determining fares became essential.

Edmondson's undemanding duties at his remote station left him time to consider these emerging techniques, especially as the N&CR's counterfoils gave no positive check on the journeys sold, nor the cash received, which was simply handed to the guard of the relevant train. His Quaker probity perhaps jibbed at the laxity of this and he set up a personal procedure of pre-prepared vouchers, serially numbered to act as audit receipts and inscribed with the origin, destination and fare. With this and the associated 'hardware', he effectively founded

the 'Edmondson system'. This aided both speed and accountancy: tickets were ready to hand and could be issued and dated rapidly. Each tube bore the fare, so that the clerk instantly knew what a journey cost and, as the serially numbered tickets were recorded as stock, their sale could be accurately attested. Tickets could above all be issued quickly and reliably: one nineteenth century account, perhaps apocryphal, recounts that a single London & North Western Railway clerk at Chester General station in 1884 issued mixed tickets to 800 passengers in an hour, or about thirteen tickets each minute. Modern systems are intrinsically slower, but the main impediments to speed today are sclerotic systems of electronic charging in place of cash.

At first Edmondson's tickets were handwritten and cut from thin card, but it occurred to him whilst out walking (he remembered) that, using a simple wooden plate or 'forme', he could produce elementary printed tickets. He next turned to a Carlisle clockmaker who helped him devise a metal dating-press and a printing machine which also serially numbered the tickets. His skills as a cabinet-maker produced issuing racks, storage cabinets and associated furniture. At first his racks operated on the converse of the familiar system, that is to say tickets were pressed upwards, with the first to be issued on top. Later the ticket 'tubes', each holding a stock of one type of ticket to a destination, worked by gravity and the clerk removed the bottom ticket. Edmondson introduced the ingenious principle of beginning the numbers of each batch of ticket at '000', so that the last ticket visible in each tube indicated the number of tickets actually sold. By checking the tubes after each traffic day (originally after each train) and writing the closing numbers on a slate strip inset above each tube, it was easy to calculate the number of tickets sold and hence the cash accountable. Skilled clerks had a clever trick: as they pulled the bottom ticket out of a particular tube, their adjacent finger pulled the next one slightly forward. Scanning the racks at the end of the shift, they could immediately identify amongst the hundreds or thousands of ticket tubes the types of ticket they had issued. This procedure survived for 150 years: it can be seen in short but evocative scenes in the British Transport Films productions *Terminus* (1961) and *This is York* (1953), the latter also including a sequence showing a clerk 'calling off' closing ticket numbers for entry in the daily proof book.

The use of cardboard instead of paper not



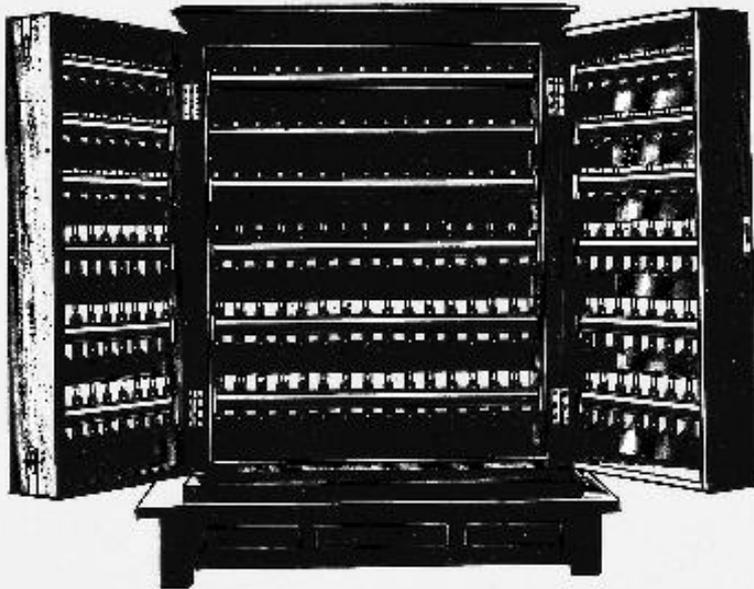
British Railways adopted a clear and elegant standard style, such as this child's single with an unusual routing. The red 'child' overprint was especially prominent and the design perhaps owed most to the former GWR designs. British Railways centralised all Edmondson ticket printing at Crewe in 1967 and in 1956 'second class' replaced third.



JOHN B. EDMONDSON, MANCHESTER.

RAILWAY TICKET ISSUING CASE

(THOS. EDMONDSON, INVENTOR).



The above is a representation of a Railway Ticket Issuing Case, which is made at my establishment at Knowsley street. Each tube holds differently printed tickets, according to their value and destination. Sixty fixed sizes are made for use on railways, the space occupied depending on the number of tubes in the case, and the quantity of tickets each holds. They are made of any variety of wood; the best seasoned timber is used, and only skilled workmen employed in their manufacture. For standing foreign climates a special kind of material is selected, generally teakwood.

I supply cases containing any number of tubes, arranged in rows, each holding a different quantity of tickets, to suit my customers convenience.

Further particulars and prices for Ticket Label Cases given on application.

SPECIAL PRICES QUOTED FOR LARGE ORDERS.

LONDON, GLASGOW, DUBLIN.

The ticket rack was an indispensable part of the booking office scene for 150 years. This illustration, from Edmondson's catalogue, shows one of the mid-range designs, with folding, lockable 'wings'. Usually racks were six or seven ranks high (as far as an average clerk could reach) and contained up to 427 different tubes and about 25,000 tickets. A large office might have several dozen such cases. (Author's Collection)

only produced more durable tickets but also facilitated their insertion into the patented dating press, with its biting action as the ticket is pressed into the aperture. Edmondson's various patents, granted from 1839 onwards, covered ticket printing and serial numbering apparatus, dating presses and issuing racks.

One distinctive feature of ticketing in these islands was almost universal staffing of even minor stopping places and hence absence of on-train issuing of tickets. The 'conductor' who 'worked' a train was largely unknown, not least because most trains were non-corridor, and there was never a widespread practice of ticketing designed for on-train issue. Although unstaffed halts, notably on the Great Western Railway, required 'fareboard'-type tickets

echoing street tramway practice, these were exceptions. The huge paper tickets used by American railways to cater for passengers boarding at the many 'non-agency' stops never appeared.

The topology of Edmondson tickets

Let us look at some of the properties of Edmondson tickets, remembering that they were all contained within a single system so that the storage, issue and recording of each form of ticket followed one set of procedures.

Size

The tickets produced for the Manchester & Leeds Railway in 1839 measured 2 in by 1 in (30.5mm x 57mm). An explanation of this

peculiar size is, perhaps, that it enabled tickets to be cut economically from a single 'demy' sheet, a handy and easily procurable size. This dimension, amazingly, became and remained almost universal.

Classes of travel

Easy verification of class of travel (originally four or more) was a prime requirement of passenger ticket design. Passengers had to be clearly distinguishable both on trains and, in earlier times, for admission to separate waiting and refreshment rooms. After 1889 fares also had to be stated on tickets.

Types of tariff

A wide range of ticket types was offered, reflecting the growth in the number of exceptional tariffs and requiring instant recognition of varying restrictions imposed. Apart from the 'ordinary' ticket, single and return, the range of discounts was astonishing, beginning with the 'parliamentary' tariff introduced in 1844, the 'Workmen's' — later 'Early Morning' — Return of 1883, the cheap 'Monthly Return' of 1933 and extending to the many variant fares of recent times. The Railway Clearing House promulgated agreed exceptional tariffs, including both those publicly advertised and generally available on particular trains (such as Day Excursions), and special fares which required vouchers or other authority. The RCH's annual 'buff statement' listed a bizarre range of some 90 different categories of special traveller, ranging from hand bell ringers to mourners, all qualifying for differing discounts. In theory each category required appropriately-printed tickets. Even in 1958 British Railways offered nearly 60 different types of reduced fare. As will be seen from the illustrations, these variants were all reflected in ticket design. For different periods of validity to be checked, tickets had to be dated on issue.

Colour

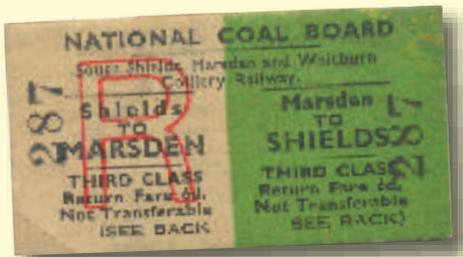
Different colours, sometimes for different parts of the same ticket, and stripes were the clearest features denoting class or availability and had the merit of being instantly recognizable even if the ticket could not be read, either in bad light or through illiteracy. Edmondson's early patent specifications refer to distinctive colours and patterns, with the system introducing colour-coding to business practice. The GWR used ten different card colours in 1910, British Railways fourteen in 1957, but more garish variants were widespread, especially for abnormal tariffs. Numerical or other overprints were further distinguishing features.

Layout

Horizontal layouts were common but not universal and the arrangement of lettering and direction of printing varied from company to company. A vertical format for return tickets was favoured by the North Eastern Railway (amongst others) and remained widespread in continental Europe. The provision of two (or occasionally three) perforated parts for return tickets was also not universal and 'one piece' return tickets were well known in Europe and were used in special circumstances in Great Britain.

Accompanied traffic

Victorian travellers were more encumbered than their modern counterparts and the range



The normal British return ticket was in two-coupon, horizontal format, perforated to facilitate detachment of the outward portion at destination. Varied-coloured outward and return halves was once common, as was the skeleton overprinted letter denoting ticket type, but on this ticket are non-standard colours. The National Coal Board inherited the South Shields, Marsden & Whitburn Colliery Railway from the Harton Coal Company in 1947 and continued a public passenger service (with appropriate Edmondson tickets) until 1953. In South Shields two different nationalised industries sold railway tickets!

and nomenclature of their impedimenta is fascinating. In particular there were stringent exceptions to what might be counted as luggage and thus be carried free: supplementary tickets were sold to cover the carriage of an incongruous list of items, including various animals, perambulators in all their forms, cycles of several kinds, bass viols and even coffins. Sometimes these tariffs were set on a zonal basis with charges for each range of distances from the station of origin.

Supplementary activities additional to rail carriage

There was a plethora of activities for which advance payment could be made at the time of booking and for which supplementary tickets were issued. These had to be clearly distinguishable from travel tickets. Some examples are illustrated.

Edmondson prevails

Edmondson's contribution — and the source of his fortune — came from being in the right place at exactly the right time to promote his invention. The Newcastle & Carlisle Railway did not, as sometimes stated, wholly spurn him — it adopted his system late in 1838 — but he was offered better terms by the Manchester & Leeds Railway in 1839 and it was there that his system was fully developed. Other companies

soon learned of it: one may perhaps guess how when we find that it was a deputation of Quakers who came from the Birmingham & Gloucester in 1839 to inspect the “system of ticketing [which] is both more economical and a greater security against frauds...” By 1847 74 of the 80 principal British railway companies had adopted the Edmondson system and he had left the railway industry to set up in business with his brother, son and nephews in Manchester, London, Glasgow and Dublin. Apart from the sale of equipment and tickets, Edmondson charged the participating companies a licence fee of ten shillings (50p) per mile of track. Edmondson's system also spread abroad, initially to France, and through the then Crown Agents for the Colonies to British possessions overseas, thus turning this into a worldwide system .

The establishment of the Railway Clearing House in 1842, which included amongst its functions the apportionment of receipts for passenger journeys involving two or more member companies, encouraged standardisation of ticket forms to ease the gargantuan task of sorting and accounting. If Edmondson provided the technical innovation, the RCH set up the institutional framework which in practice confirmed the dominant system throughout these islands. The RCH's system of revenue allocation also facilitated single-coupon ticketing between two or more companies' lines and avoided the need (as in the United States at the time) for separate tickets for each company's sector. Edmondson never had a monopoly, though. Many larger companies printed their own tickets, of distinctive style but variable quality, and there were other big printers, but the universal presence of ticket racks and dating presses of Edmondson's dimensions in effect mandated indefinitely his original concept and design. The Edmondson printing firm itself continued in existence until 1960 but the principles outlasted the company.

416 tons of paper

The survival of a ticket ledger from Shipley (Great Northern Railway) station illustrates the scale of ticket stock required at a modest station. With traffic in May 1882 of just over 9,000 bookings a month (around 400 a day),

Brampton Junction station (photographed in 1967), where Thomas Edmondson began his railway career in 1837. (Stations UK)



The Edmondson ticket was a pioneer business system and its cards could be used for many purposes apart from travel. Before security obsessions became overwhelming, a popular activity encouraged by steamship companies was to arrange tours of the public areas of ships in port, with a view to awakening interest in future cruises. This ticket was issued by the LMSR in association with Cunard-White Star for a visit to a liner docked at Liverpool. The 'audit number' at the lower right (133) indicates that the ticket was issued at Birmingham New Street.

the office issued printed tickets that month to 46 different destinations and in 72 different forms. The great majority of these (50 out of 72) were issued less than once a day and six only once in a month. Most bookings were to four local stations, at fares of 3d or less. Generations later, records from Kegworth (BR London Midland Region) give a similar picture. In the 1950s the station held printed tickets to 59 destinations in 192 different forms, but only fourteen stations accounted for nearly all the station's traffic and some printed tickets were sold less than once a year, a few never. In 1962 alone 31,450 pre-printed tickets were delivered to Kegworth, several times the number of annual passengers; many were never used. At the diminutive end of the scale the little station at Waenfawr (*sic*) on the North Wales Narrow Gauge Railway, with six departures a day, held printed tickets to eight destinations in 30 different forms.

Even after considerable simplification the British Transport Commission in 1958 specified nearly 200 different forms of standard ticket, with about 300 different titles; in theory all these could have been available at any one major station, printed to each of a wide range of different destinations in both adult and child forms. Taking only ordinary single and return tickets, of two classes and for both children and adults, a relatively modest list of five hundred destinations requires stocks of at least 4,000 different forms of printed ticket, to



which must be added many hundred more types of special (such as privilege, forces and accompanied traffic), reduced fare and blank tickets. The scale of holdings at major stations, such as Crewe with its wide range of directly-reached destinations, beggars belief.

In 1957 British Railways printed 524 million tickets (weighing 416 tons!). When BR's Camden Town, Paddington, Dorking and Glasgow plants were closed and ticket printing was centralised at Crewe in 1967, 250,000 different ticket formes were still required. The Crewe printing works, using 36 modernised machines, initially printed about 300 million tickets each year. Many were wasted: in 1957 it was found that 40% of all tickets in stock were 'non-moved' in the winter months and a survey showed that one typical agency sold only from one to 23 of a range of printed ticket types in a month.

Because even in these cases most possible journeys had to be catered for by the use of 'station to blank' tickets, each booking office also needed registers of fares to other stations and had to correct these regularly as fares increased or conditions changed. The supporting documentation behind the Edmondson ticket was equally vast. The little station at Llandedwyn on the Tanat Valley Light Railway, whose fare book dated October 1923 survives, maintained fares of different types and classes to 58 different stations, while at the other extreme the Southern Region's 'via London' fares manual of the 1960s contained data for calculating about 6,500 fares, including the wide range of variable routings for which different rates were chargeable.

These particulars indicate some of the major shortcomings of the Edmondson system. Ordering, printing, storing and auditing ticket stocks on this scale called for an army of experienced and reliable staff at considerable recurrent expense. The blank ticket procedure, in particular, required the issuing clerk not only quickly and legibly to complete the ticket itself but also to complete by hand two or three additional records, and demanded constant policing if abuse was to be avoided. The massive task of sorting and tabulating used and collected tickets was a necessary part of the audit process. Printed tickets could represent a sizeable cash value and their theft and misuse — for instance, by appropriating tickets out of order and disposing of them illicitly — was hard to guard against. Measures were needed to prevent fraud by printers, who could lucratively dispose of high-value over-runs. In

In 1939 Leopold Wiener produced this illustration of a Newcastle and Carlisle Railway ticket, which shows that even in 1837 minor stations on the line were supplied with ticket ledgers. Edmondson didn't invent railway ticketing, but he transformed it. (Author's Collection)



a busy office it was difficult to identify the actions of a particular clerk in assigning responsibility for error or fraud. Alteration and forging of tickets by travellers were not unusual. Such problems were never entirely eliminated.

On the other hand the basic simplicity, adaptability and comprehensiveness of the Edmondson system, and above all its speed of operation, were compelling advantages.

Mechanisation and the end of the Edmondson

The sheer bulk of the pre-printed ticket system, and the vast audit and accountancy work associated with it, encouraged mechanisation once suitable systems became available. The growing volume of railway passenger traffic made such an expedient more urgent. As early as 1909 the International Railway Congress sought the views of member railway administration on the problems arising from what threatened to be the overwhelming volume of pre-printed tickets. The survey found some 47,000 different ticket forms in stock at the Anhalter station in Berlin and recommended mechanisation "... to reduce as far as possible the number of tickets ..." Their prize exhibit was the Regina machine installed by the Prussian-Hessen State Railways at Kalk station on 1st September 1907, capable of printing 1,280 different forms of Edmondson-sized tickets to 324 different destinations. Such machines were installed at the new Birmingham Snow Hill station of the GWR in 1911.

In Great Britain the Underground Electric Railways of London pioneered general mechanisation, driven by volume of traffic and the practical impossibility of accommodating all necessary pre-printed tickets in the confined space of their ticket offices. Coin-operated devices issuing a single pre-printed ticket form from each machine, on the model of chocolate machines, were introduced from 1904. 165 such machines were in use by 1928. Quicker manual booking was facilitated by adopting a simpler ticket form, abandoning the straight 'station to station' format which had characterised Edmondson systems. Starting in 1911 the 'Bakerloo' railway adopted the so-called 'scheme' ticket, which stated a list of stations from a particular origin which could be reached for the same fare. This system was extended in 1914 to the City & South London and between 1922 and 1927 to the rest of the Underground system, including the independent Metropolitan Railway. Some

30,000 different ticket forms were withdrawn in consequence. Scheme tickets were eventually replaced by 'Station of Origin' tickets stating only a fare applicable from the issuing station and the Underground adopted coin-operated machines and mechanised booking office equipment, although a large range of conventional tickets was required for higher fares and special issues.

Remarkably little development occurred on the British main line network before 1939, although platform tickets were an early subject of mechanical issue: in 1925 'penny-in-the-slot' machines of two types were in use at 96 LMSR stations. The LNER introduced AEG Multiprinter machines at Newcastle upon Tyne in 1931 and a Westinghouse equivalent at Liverpool Street in 1935. However, as early as 1926 1,200 AEG and Siemens machines were in operation at principal stations in Germany, each housing up to 2,500 printing plates, and by 1945 the Reichsbahn used such equipment very extensively, mainly manufactured by AEG or Pautze. Despite intelligence investigations and reports by the Allied Control Commission early in 1946, there was no immediate British response. The long survival of the pre-printed ticket in Great Britain can be accounted for by the almost invariable practice of ticket sale at stations and the relatively high cost and complexity of machines which would be unjustified at the majority which handled relatively little traffic. In 1957 it was optimistically expected that the Edmondson ticket would be eliminated in five to ten years and from 1959 British Railways at last adopted the Multiprinter at some principal stations and



A zonal system for accompanied traffic simplified ticket-issuing and recording and reduced ticket stocks. This is an LNER ticket for a dog's return journey of 150 to 200 miles from Carlisle. Other 'small animals' were also catered for: the SECR issued tickets for cats. Further to complicate the ticketing system, and enlarge the stocks required, reduced rate tickets were produced for issue to railway staff for items accompanying them.



It is difficult to imagine now that the huge volume of travel on London's underground railways was once catered for by the issue of dated card tickets: it's not surprising that they were an early field for mechanisation. 'Scheme' tickets were introduced on the City & South London Railway in 1914 to minimise printing and storage and this one covers a range of destinations, two of them involving a change of line.





The most widespread reduced-fare tickets were 'Workmen's Returns', issued almost universally at fares generally mandated by Parliament under the Cheap Trains Act 1883. Renamed 'Early Morning Returns' they survived until a general restructuring of fares in 1959-62. Although long-period season tickets were printed on larger card, weekly 'Early Morning' tickets were issued on some lines using normal Edmondson-type tickets. The large numerical overprint on this BR ticket printed to Southern railway design is the 'secret' week number, which identified valid tickets clearly to the ticket collector. In 1950 most people worked a six-day week.

other forms of issuing machine, especially in suburban service. From 1965 the busy Southern Region widely installed cash register-like NCR 21 machines to print date and price on pre-printed Edmondson-type tickets. Such machines greatly simplified accountancy by recording details of sales and totalling cash received.

The crucial preliminary to full mechanisation was a means of electronically storing a substantial volume of fare data, thus eliminating at a stroke most of the laborious paper records previously mentioned. Not until economical microprocessor-based issuing machines became available, and the majority of remaining stations were unstaffed, did the universal introduction of mechanisation become practicable. The credit falls to the ever-innovative Ffestiniog Railway for pioneering such equipment in Great Britain in 1981. After trials beginning in 1980 the British Railways Board authorised in 1983 a sophisticated computer-based Accountancy and Passenger Ticket Issuing System (APTIS), in a range of capabilities both station- and conductor-operated. After initial difficulties this was widely introduced in 1986, with most of the surviving staffed stations converted in 1988-9 at a cost exceeding £38 million.

The last BR-printed Edmondson tickets were produced at the end of 1987 and the last were sold (by a travel agent) in 1990.



This LNER-design privilege ticket illustrates the long survival of the inter-company 'joint lines' and their managing committees, in this case the Great Central & North Staffordshire joint line between Macclesfield and Marple, after 1923 administered by the LNER and LMSR but using the former's style of ticket. More than 30 of these 'joint committees' survived to be listed in Schedule III of the Transport Act 1947 and many of them were named on tickets printed by one or other of the partners.

Elsewhere in Western Europe some 'Edmondson'sche' (*sic*) tickets remained in use at least into the late 1990s, being finally displaced from Germany (for instance) in 1999 by the accounting cataclysm accompanying the introduction of the Euro. The spread of mechanisation around the world, with at least a hundred different systems, destroyed for ever the remarkable and long homogeneity of the Edmondson system. However, in India the Edmondson system continues in parallel with modern computer-based systems: in January 2006 an example was issued, and dated using a traditional dating press, at Bolpur-Santeniketan station on the Eastern Railway, 170 years and many thousands of miles removed from Brampton. The shade of Thomas Edmondson would surely be gratified.

Acknowledgements and bibliography

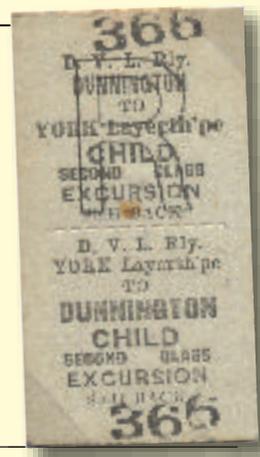
Robert Darlaston kindly reminded me of the celebrated sign at the entrance to GWR stations (and its spelling), reflected in the title.

My thanks are due to Mr. R. L. Courtney, station master at Northfield (LMR) in the late 1950s, who instructed me in the mysteries of traditional ticketing not long before they began to disappear, and to innumerable booking clerks who tolerated my persistent enquiries for unusual tickets from their racks. A few of those acquired are illustrated here. I am grateful to my colleague David Hall for background information on the Society of Friends and its close connection with early railways, and to Cambridge University Library, London Guildhall Library, the National Archives, Kew, and the St. Bride Library.

The Transport Ticket Society has been most helpful. The Society provides a wide range of publications and information, details of which are given on its website: www.transport-ticket.org.uk

There are several informative general monographs on railway ticketing, amongst them:
Maurice I. Bray: *Railway Tickets Timetables and*

The Derwent Valley Light Railway, south of York, was closed to passengers as early as 1926, although the railway survived as an independent entity into modern times. Its tickets were evidently produced by the neighbouring North Eastern Railway and resembled its standard designs, in this case in a vertical format.



Handbills (Ashbourne, 1986).

Gordon Fairchild and Peter Wootton: *Railway and Tramway Tickets* (Shepperton, 1987).

Derek Harris: *Collecting Railway Tickets From the British Mainland* (Colchester, 1989).

Lionel Wiener: *Passenger Tickets* (London, 1939).

The final parts of Wiener's monumental work were not included in the edition reprinted by the *Railway Gazette* in 1939, but are contained in three later editions of the *Monthly Bulletin of the International Railway Congress Association New Series*, Vol. XXI (1939) pp673-733, Vol. XXIII (1946) pp267-285 and 325-341, and Vol. XXIV (1947) pp685-704.

Other works consulted have been:

John B. Edmondson: 'To Whom are we indebted for the Railway Ticket System?' in *English Mechanic and World of Science*, Vol. XXVII, No. 697, pp524-6 (2nd August 1878).

Michael Farr: *Thomas Edmondson, Transport Ticket Pioneer* (Weston-super-Mare, 1982).

Michael Farr: *Thomas Edmondson and His Tickets* (Andover, 1991).

D.G. Geldard: *The First Fifty Years* (n.p., 1984).

Charles E. Lee: *Passenger Class Distinctions* (London, 1946).

Edward H. Milligan: *Quakers and Railways* (York, 1992).

Smaller stations would hold tickets for fewer destinations and thus needed relatively small ticket racks. This is Ince, near Wigan, on the former Lancashire & Yorkshire line, photographed on 1st April 1965; the scene is little changed from pre-grouping days, even down to the gas lighting. Ticket stocks would be kept in the drawers and cupboards beneath the counter. Note the framed photograph of the station. (V. R. Anderson Collection)

