

## Doctors and Their Transport, 1750–1914

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When, in 1841, he wrote that: “The country doctor’s horse is as indispensably necessary as himself to the pursuit of his practice”, the author of the leader in the *Lancet* was only stating the obvious.<sup>1</sup> Everyone knew that doctors, whether they practised in town or country, were utterly dependent on getting out and around if they wanted to make a living. So it is odd that when so much has been written on the history of medical practice, so little attention has been paid to doctors and their transport.<sup>2</sup>

In 1970, the historian F M L Thompson showed convincingly that “horses are as fit a subject for that study as past politics, past ideas, or past buildings”.<sup>3</sup> Similarly, although horses, carriages, railways, bicycles and motor cars are not the usual concern of historians of medicine, I intend to show that all of these played a conspicuous part in the lives of medical practitioners, and that changes in methods of transport between 1750 and 1914 had a profound effect on medical practice.

With today’s system of health centres, clinics, and appointments, it is easy to forget that before the First World War a large proportion of medical consultations were what the British call “home visits” and Americans “house calls”. There were, of course, always some patients who came to the doctor’s house or “surgery”.<sup>4</sup> For instance, in 1748, Richard Kay of Baldingstone in Lancashire (1716–51) wrote: “after

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<sup>1</sup> Anon., *Lancet*, 1841–42, ii: 95.

<sup>2</sup> Two notable exceptions to the general neglect of this subject are P Bartrip, *Mirror of medicine: a history of the British Medical Journal*, Oxford, British Medical Journal and Clarendon Press, 1990, pp. 148–56; and Anne Digby in two of her books: *Making a medical living: doctors and patients in the English market for medicine, 1720–1911*, Cambridge University Press, 1994, and *The evolution of British general practice 1850–1948*, Oxford University Press, 1999. There

is a short section on doctors and their transport in Irvine Loudon, *Medical care and the general practitioner*, Oxford, Clarendon Press, 1986, pp. 117–25. See also W J Bishop, ‘Transport and the doctor in Great Britain’, *Bull. Hist. Med.*, 1948, 22: 427–40.

<sup>3</sup> F M L Thompson, *Victorian England: the horse-drawn society*, an inaugural lecture at Bedford College, University of London, 22 October 1970, published by Bedford College, 1970.

<sup>4</sup> Despite the risk of anachronistic or inappropriate labelling, I will mainly use the word “doctor” in this paper in the broad colloquial sense which includes medical practitioners in general including the surgeon-apothecary, the general practitioner, the surgeon and physician. I shall likewise use the word “consultant”, even if the use is anachronistic, to describe physicians (in the British, not the American sense) and surgeons who held honorary appointments at the voluntary hospitals and who made part or most of their living by consulting practice.

attending for a while upon Patients at Home, I visited several sick Patients Abroad, which is my general Method of spending every Day".<sup>5</sup> However, the patients who came to the doctor's house or "surgery" were usually the poor, the working-class patients who were the least profitable members of the doctor's practice. Middle-class patients tended to avoid visits to the doctor's surgery if only to avoid the embarrassment of finding themselves sitting in a waiting-room shoulder to shoulder with their gardener or domestic servant. Thus, on most occasions when illness struck the local squire, lawyer, vicar, businessman, shopkeeper, genteel spinster or widow, or person of independent means, whether their complaint was trivial or grave, they and their families expected, and received, a home visit and paid the appropriate fee.<sup>6</sup> The round of visits was the essence of medical practice.

A general practitioner with a closely confined practice in a city might do his rounds on foot. Many did. But general practitioners in the country with patients ten or more miles from their house, were utterly dependent on transport which was reliable, fast, and practical; and also as inexpensive as possible because transport was the largest single item in the expenses of medical practice. The more efficient the transport, the larger the area that could be covered, the greater the number of patients who could be visited in a day, and the quicker the response to an emergency—and therefore, to state the obvious, the better the living they made.<sup>7</sup>

Beyond these practical considerations, there was also the question of public appearance and reputation. At one end of the scale the public might see with misgivings an impecunious doctor trudging through the rain with his black bag dangling from his hand. At the other, there was the rich consultant, warm and comfortable in an expensively equipped closed carriage driven by a top-hatted coachman. In terms of status, there was a whole world between them.

### The Early Days of Carriages

As early as 1747, the author of *A general description of all trades*, observed that "A physician . . . when he sets up in business, the first object of his care is a Chariot, the next an Apothecary, both with the same view, that of introducing him to his business. We shall omit any observations upon his Chariot, because it is, at worst, but a vanity and sometimes a necessary one too".<sup>8</sup>

In the eighteenth century, most of the carriage doctors would be found in cities and most were consultant physicians. In Bristol during the 1730s, Dr Middleton was

<sup>5</sup> W Brockbank and F Kenworthy (eds), *The diary of Richard Kay, 1716–51*, published for the Chetham Society by Manchester University Press, 1968. It is possible that by the word "Home" Kay meant visits to patients in Baldingstone, rather than attendances at his house. It is impossible to be sure.

<sup>6</sup> The increase in surgery attendances relative to home visits was accelerated first by the 1911 National Health Insurance Act after 1913, and even more by the introduction of the National

Health Service in 1948. The evidence can be found in the account books or "day-books" of pre-National Health Service general practitioners, which show numerous entries consisting of a name and address followed by "iter" (which means a journey) to indicate a home visit.

<sup>7</sup> See Digby, *Making a medical living*, op. cit., note 2 above, pp. 112–17.

<sup>8</sup> Anon., *A general description of all trades*, London, printed for T Waller, 1747.

the first to own a carriage but it was “a great lumbering thing without springs . . . the horses never went more than foot-pace . . . it was in fact a sort of genteel wagon”.<sup>9</sup> A few years later Thomas Shute, also a Bristol physician, bought “a small sulky, just large enough to hold him and that was all”.<sup>10</sup> In the 1770s, the surgeon John Townsend, a ceaseless worker who would “often eat standing up, a slice off the spit in a patient’s house”, had a contract with a firm to supply him with a coachman day or night for £100 a year. He had designed a special carriage that had pockets to hold tins of ointment, spatulas, surgical instruments and splints—“ready for any emergency”. Townsend could afford such extravagance because he earned around £1500 a year and left £62,000 when he died.<sup>11</sup>

Even more unusual was the Bristol apothecary, William (“Billy”) Broderip, who had a very grand “equipage”. The cost of such a carriage in the 1790s was around £93, but the addition of decorations and furnishings added another £100.<sup>12</sup> Billy Broderip, however, could well afford a carriage because he made the astonishing income of £4,000 to £5,000 a year in the 1790s, and flaunted every penny of it in pictures, furniture, a country house outside Bristol and his grand carriage. He was heartily loathed by the Bristol physicians for parading his wealth (and even more for earning more than they did) but they had the satisfaction of seeing Broderip end in bankruptcy.<sup>13</sup> Erasmus Darwin (1731–1802), the physician and the grandfather of Charles Darwin, is said to have travelled up to 10,000 miles a year by carriage. He invented a mechanism which made the turning of carriages much safer. Instead of the whole of the front axle turning, the front wheels turned on the end of the axle; and he added other improvements to the design of carriages.<sup>14</sup>

One thing seems clear. In the eighteenth-century, only a minority of doctors could afford the luxury of a carriage. In large cities, and certainly in London, most consultant physicians would rather be seen dead than on horseback. For them, a carriage, much grander than the kind used by general practitioners (but not so grand that a doctor could be accused of aping his betters) was an absolute necessity.<sup>15</sup> We will return to the subject of consultants and their carriages later on.

Doctors might also be judged by the quality of their horses. The temptation was to buy a good-looking horse, but reliability came first. In 1825, John Simpson MD, a young Bradford physician, was offered a beautiful animal by his uncle but it was known to be unpredictable. So, with sadness and common sense, he chose an ugly

<sup>9</sup> Bristol Record Office, *The Bristol Infirmary biographical memoirs* (BIBM), compiled by Richard Smith Jnr, vol. 1, 39.

<sup>10</sup> BIBM, vol. 2, 860. A sulky, so-named because it held only one person, had very large wheels with the driver perched high up above the axle.

<sup>11</sup> BIBM, vol.1, 95.

<sup>12</sup> W Felton, *Felton’s carriages*, London, Hugh Evelyn, 1962.

<sup>13</sup> BIBM, vol. 1, 46, vol. 2, 157–9 and 164.

<sup>14</sup> D King-Hele, *Erasmus Darwin: a life of unequalled achievement*, London, Giles de la Mare, 1999, pp. 62–4.

<sup>15</sup> The danger of too grand an equipage is stressed in the novel *Pendennis* by William Thackeray, where a military man criticizes the physician, Dr Goodenough: “Green liveries bedad”, the general said, “and as foin a pair of high stepping horses as ever a gentleman need sit behind, let alone a docthor. There is no end to the proide and arrogance of them docthors nowadays.”

horse with a long back and named it “Weasel”. It cost £20.<sup>16</sup> It was accepted that a horse and gig was more dignified and certainly more comfortable than horseback. In any given area, however, the choice between horseback or horse and carriage was often dependent on the local state of the roads.

### The State of the Roads

The poor state of the roads in the eighteenth century is a commonplace of history. The famous agriculturist, Arthur Young, wrote in 1790: “From Chepstow to the halfway house between Newport and Cardiff [the turnpike] continued as mere lanes of hugeous [*sic*] stones as big as one’s horse and abominable holes”, a “road in Essex close to London” was “the worst of all the cursed roads that ever disgraced this Kingdom in the very ages of barbarism”, and another near Bury St Edmunds consisted of “ponds of liquid mud and loose flints just sufficient to lame every horse which moves near them.”<sup>17</sup> And these were the main roads. Side roads were much worse.

Nevertheless, roads were improving in the second half of the eighteenth century.<sup>18</sup> Writing in 1906, a historian pointed out that such was the improvement of the roads that there was a revolution in transport:

The last quarter of the eighteenth century offers at once an analogy and a contrast to the last quarter of the nineteenth. Substitute mail coaches for railways, riding horses for bicycles, hackney coaches for cabs and motor cars, and it will be possible to understand the pride taken by the subjects of King George in the “flying coaches” (equivalent to our modern express trains) and other improvements in the mutability of mankind.<sup>19</sup>

Research by modern historians of transport has shown that whereas the journey from London to Manchester by stagecoach took 5 days or more in 1660, by 1760 it took half that time, and by 1784, when the Mail Coach was first introduced, the journey time had been halved again.<sup>20</sup> These road improvements were associated with the Turnpike Trusts (the first Turnpike Road Act was passed in 1663), which were able to borrow money and extract tolls, and often had their own engineers. The most famous and energetic were Thomas Telford (1757–1834), and his close contemporary John Loudon Macadam (1750–1836). They were, however, preceded

<sup>16</sup> E Willmott (ed.), *The journal of Dr John Simpson of Bradford*, City of Bradford Metropolitan Council, Local Studies Department, 1981.

<sup>17</sup> H McCausland, *The English carriage*, London, Batchworth Press, 1948, p. 15.

<sup>18</sup> Arthur Young reported in his Northern Tour in 1770 that half the turnpike mileage was excellent or good, and only one fifth bad, very bad or vile, although only a fifth of other roads could merit the description of good. J Chatters,

‘Road transport and economic growth in the eighteenth century’, in A Digby, C Feinstein, and D Jenkins, *New directions in economic and social history*, vol. 2, London, Macmillan, 1992.

<sup>19</sup> Mr Fairman Ordish, ‘The history of London traffic’, in *Report of the Royal Commission on Transport in London*, PP, 1906, XLII, pp. 887–908.

<sup>20</sup> Chatters, *op. cit.*, note 18 above. See also W T Jackson, *The development of transport in modern England*, London, Frank Cass, 1962.

by the little-known but astonishing John Metcalf (1717–1810), often known as “Blind Jack of Knaresborough”<sup>21</sup>

The importance of this brief diversion into the state of the roads is quite simply that improved road surfaces made it possible to design and produce in large numbers, light, well sprung, comfortable carriages, in stark contrast with the heavy, clumsy and bumpy carriages of the eighteenth century.<sup>22</sup> Some were designed for a single horse, others for a pair or more. There was, however, so much variation that only an expert on the subject (which the author is not) could nowadays distinguish with confidence between the barouche, brougham, britzschka, and cabriolet (from which the word “cab” is derived) or the dogcart, gig, landau, governess cart and victoria, let alone tell the difference between the Stanhope gig and the Dennett gig.<sup>23</sup>

At the beginning of the nineteenth century there were about 50,000 two-wheeled carriages in England. By 1874 there were said to be 285,000.<sup>24</sup> Doctors were amongst the many who profited by this profusion of light carriages, and four of the types commonly used by doctors are illustrated in Figure 1. The gig and the dogcart were much favoured by general practitioners. The dogcart was so named because of a slatted box or “boot” below the seat designed for carrying sporting dogs, which was easily adapted by medical men for carrying splints, surgical instruments, medicines, etc.

### **The Advantages of Horseback**

Before the use of gigs and dogcarts became common, horseback was the rule for most country doctors. Richard Boteler (1716–92) who practised for forty years in Kent “disliked horses so mostly walked upwards of twenty miles a day”.<sup>25</sup> But his attitude was exceptional. Riding allowed short cuts through fields and along bridle

<sup>21</sup> John Metcalf, sometimes called “the first road engineer” was blinded by smallpox at the age of six. He described himself as stone blind and there is no evidence he had any sight at all. Yet he grew into a man over six foot tall possessing extraordinary confidence and vigour who rode horses and won races, joined the army for a brief period, and once walked from Knaresborough (which is near Harrogate in Yorkshire) to London. When he took up road engineering he built many bridges and constructed 180 miles of excellent roadway in the North of England using a six foot staff to tap out the ground, judging the nature of the ground through his feet. When he died he was reputed to have 20 grandchildren and 90 great-grandchildren. *Dictionary of National Biography*, which ends his surname without an “e”, and G Hogg, *Blind Jack of Knaresborough*, London, Phoenix House, 1967, which ends his name with an “e”.

<sup>22</sup> Marylian Watney, *The elegant carriage*, London, J A Allen, 1961, revised edition, 1979.

<sup>23</sup> For details on carriages see especially Watney, op. cit., note 22 above; and also G A Thrupp, *The history of coaches*, London, Kerby and Endean, 1877; J Thompson (compiler), *Horse-drawn carriages*, Fleet, Hampshire, John Thompson, 1980; James Reid, *The evolution of horse-drawn vehicles*, London, Institute of British Carriage and Automobile Manufacturers, 1933; D Parry, *English horse drawn vehicles*, London, Frederick Warne, 1979; Felton, op. cit., note 12 above; and McCausland, op. cit., note 17 above.

<sup>24</sup> Thrupp, op. cit., note 23 above. From the 1790s, a two-wheeler costing less than £12 with “taxed Cart” painted on the side, was taxed at 12 shillings a year. More expensive two-wheelers were taxed at £3.17.0 a year. For the owners of several four-wheeled carriages, the first was taxed at £9.18.0 a year, the second at £9.18.0 and the third and subsequent ones at £11.0.0, pp. 75–6.

<sup>25</sup> Obituary notice, *Gentleman's Magazine*, 1792, vol. 62, part 1: 279–80.

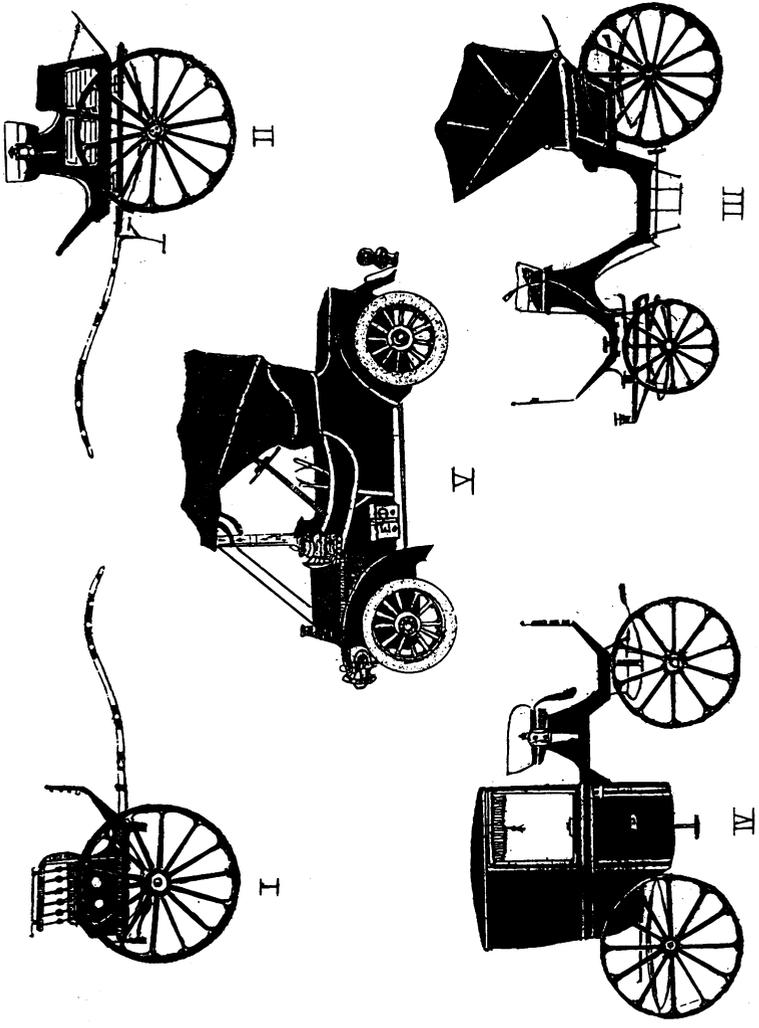


Figure 1: I and II are a gig and a dogcart respectively, and were the kinds of carriage used by general practitioners. III and IV are a victoria and a brougham respectively and were used by consultant physicians, but also by some of the more prosperous general practitioners. Both III and IV have a seat up front for a coachman. Figure V is a Wolseley 1906 motor car, illustrated in the *British Medical Journal*, 4 May 1907, as a "suitable car for medical men". (Etching by the author.)

paths or deeply rutted farm tracks which were impassable to anything except a heavy farm wagon. Horses were quick and versatile, and there are many stories of doctors' horses that could be trusted to find their way home from a visit while the exhausted doctor dozed in the saddle.<sup>26</sup> It is not surprising that doctors grew fond of their horses and treated them with care. William Carr from Yorkshire built a shed for his horse in the winter, and always carried “a pocket-full of corn” or “an oatcake” to keep his animal happy.<sup>27</sup> Matthew Flinders of Donnington in Lincolnshire, a man who rarely admitted to any trace of emotion, wrote in his diary in 1798:

My old pony, poor Taffy, died—he shrunk to a skeleton, having for above two months refused Hay and Corn and would eat only a little grass—he has carried me I think more than 5 years and I feel concerned for his loss.<sup>28</sup>

That these doctors (and their horses) were often exhausted is not surprising when one learns of the distances they covered. The Maurice family has provided successive generations of general practitioners in Marlborough from 1792 to the present. Around 1800, their practice covered an area stretching from Devizes, 13 miles to the west of Marlborough, to Hungerford, 10 miles to the east. To manage such distances in a day, a groom was sometimes sent with a fresh horse by a short cut over the downs, to meet the doctor at a pre-arranged point.<sup>29</sup>

In the late eighteenth century, ten miles distance enclosed most of the practice of William Goodwin in Suffolk but he would ride up to fifteen miles or occasionally more to visit a patient. In the same period, William Elmhirst in Yorkshire, who died from a fall from his horse, had a practice that was enclosed within a five mile radius from his house. In the 1830s, the highly active Norfolk surgeon, John Greene Crosse, recorded that “5 times within 10 days I have seen a patient 33 miles off and each day attended an extensive practice in and about Norwich”, and a Hanworth surgeon was so much engaged in practice that he was always seen getting on or off a horse and always dressed in top-boots and spurs.<sup>30</sup> There are many references to doctors visiting their patients by horseback, but the most vivid can be found in the diaries of Thomas Giordani Wright at the time when he was working in Newcastle upon Tyne.

### **Thomas Wright and his Horses**

Thomas Giordani Wright (1808–98), who became a prosperous doctor in Wakefield, was apprenticed at the age of sixteen to Dr James McIntyre, a surgeon in Newcastle

<sup>26</sup> John Brown, ‘Our Gideon Grays’, in *Rab and his friends*, Everyman Library, London, Dent, no date, originally published 1858–1861, p. 170. Gideon Gray was the doctor in Sir Walter Scott’s novel, *The surgeon’s daughter*, London, Routledge, 1831, who travelled about 5,000 miles a year on horseback. His horses “Pestle and Mortar” allowed Gideon Gray to sleep in the saddle as they found their way home at night. A real as opposed to fictional account of the same can be found in J L Mann, *Recollections of my early and professional life*, London, Rider, 1887.

<sup>27</sup> Wellcome Library, London, ‘Notebooks of the Carr family, surgeons near Leeds’, MSS 5203–7.

<sup>28</sup> Lincoln Archives Office, ‘The ledgers of Matthew Flinders, surgeon of Donnington, Lincs. (1755–1802)’.

<sup>29</sup> D Maurice and T Maurice, *The Marlborough doctors*, Stroud, Allen Sutton, 1994, p. 47.

<sup>30</sup> Digby, *Making a medical living*, op. cit., note 2 above, pp. 112–17.

upon Tyne who lived in the centre of town. Most of his practice was amongst the scattered coal-mining villages outside the town with at least one good turnpike to these villages on which a gig could be used. But many of the patients lived in places that could only be reached by horseback.

From October 1826 to April 1829, when he left for London to study medicine, Wright kept a remarkable diary that reveals a delightful, enthusiastic and well educated lad—especially in music—with literary ambitions. He possessed an eye for a good horse, and an eye for the girls. A fondness for purple passages, such as describing one of his horses as a “little frisky, fiery, fly away, foreign Flanders 5 year old filly”, and another as his “charger”, can be forgiven in an eighteen-year-old, and this diary is an exceptionally rich source on social, professional and clinical aspects of medical practice, and especially on problems of transport.<sup>31</sup>

When he arrived in Newcastle, Wright did many of his visits on foot, and was very particular about his dress, wearing the “dress black trowsers” of which he was very proud, and a respectable black coat.<sup>32</sup> For visits by horseback he always wore breeches. At the beginning of the diary it seems that McIntyre (the surgeon to whom Wright was apprenticed) had only two horses, with frequent difficulties when one of them was lame or ill or tired. “Rode the black horse today.” Wright recorded in 1826, “He is dead lame. Mr McI has had my mare away all night. I wish to goodness he would get another”.<sup>33</sup> He did get another, but it was unsatisfactory and was exchanged for a new mare, strong but temperamental, which was allocated to Wright:

My mare is getting a very bad habit of running away before I get mounted which she did today and after a deal of difficulty (notwithstanding I was laid across her like a calf on a butcher’s horse, length-ways), got me off. The shock completely deprived me of breath for a few moments, however I luckily came off in the end with a bruised finger, and a dirty great coat, which I got brushed at a patient’s house close by.<sup>34</sup>

McIntyre had at least three horses, a gig, and a groom. Horses were bought and sold at a horse market “on the moor” where McIntyre and Wright searched for an animal that was mild-mannered, but strong enough for a long day’s visiting on horseback and pulling the gig.<sup>35</sup> Eventually, Wright was given a pretty little black nag which had been used for month in the gig, a job now taken over by another horse. Where Wright’s previous mount had been difficult this one was docile:

By careful tuition and kind treatment I have brought this one already into a degree of docility I hope yet to improve upon. Though I have only ridden her 10 days the animal will follow

<sup>31</sup> Wright’s diary has been the subject of two publications: Alastair Johnson, ‘The diary of Thomas Giordani Wright: apprentice doctor in Newcastle upon Tyne’, *Med. Hist.*, 1999, 43: 468–84, and Alastair Johnson (ed.), with a foreword by Professor Roy Porter, *Diary of a doctor: surgeon’s assistant in Newcastle upon Tyne, 1826–1829*, Thomas Giordani Wright, Newcastle Libraries and Information Service in association with Tyne and Wear Archives, 1998. A transcript of the entire Diary will in due course be published as Alastair Johnson (ed.), ‘Diary of a

doctor: surgeon’s assistant in Newcastle upon Tyne’, The Surtees Society, vol. 205. With great generosity, Alastair Johnson sent me his entire transcript of Wright’s diary on a computer disk for which I am very grateful. The extracts in this paper come from that transcript.

<sup>32</sup> Transcript of diary, vol. 1, 7 Oct. 1826 and 20 Jan. 1827.

<sup>33</sup> *Ibid.*, Oct. 1826.

<sup>34</sup> *Ibid.*, 15 Oct. 1826.

<sup>35</sup> *Ibid.*, vol. 5, 14 Aug. 1827.

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me along the road without any hold of the reins and stand at the patients doors till I come out following me from one to another like a dog. As yet I dare not place much confidence in her fidelity but in a little while these qualities will be found extremely useful in a surgeons steed. The former practice too is useful on frosty days when a walk is pleasant to relieve the cold inactivity of the saddle. After puzzling my head in vain for a classic appellative for this favorite I at length fixed upon plain “Fanny” by which she is conscious of being spoken to.<sup>36</sup>

Unfortunately, a few days later the sweet-natured Fanny became lame and Wright was given a “pit galloway on trial for a day or two; but on my unfavourable report being seconded by the groom’s it was returned as deficient in action.”<sup>37</sup>

It seems that the gig (probably similar to the one shown in Figure 1) was used mostly by Wright’s master, McIntyre. It was also used when two doctors had to respond to a call together, such as the many and often dreadful mining accidents. Travel by gig was safer than horseback, especially in frosty weather:

I have been out at Benwell this morning and such a ride or rather slide. My mare not sharpened, and the roads with a mild thaw after the hard frost of yesterday and last night, are very slippery. I rode with my feet out of the stirrups almost all of the way, and my steed slid all ways but downwards. She did come down . . . once or twice in going downhill—I ought to go down to Heaton, Carville, after dinner, but I dare not ride the mare without sharpening.<sup>38</sup>

On another occasion his horse came down on top of him. He was saved from serious injury because “The curve of the saddle formed an arch over my limb which saved it from harm”.<sup>39</sup> Wright often rode long distances:

I have been a long ride this morning to Felling, Windy Neuck (Nook) and then after coming back over the bridge went to Heaton, Walker, Benton & Forest Hall near Killingworth. In all about 17 or 18 miles.<sup>40</sup>

There are several entries giving details of long days spent in the saddle.<sup>41</sup> Navigation across country at night was often difficult:

The roads were a complete puddle—I had to go thro’ several long fields—the night was hazy and the stars of the first magnitude & planets were barely visible—my eyes told me that I was on terra firma or something dark colored while my ears intimated that I was crossing some interminable river by the plodging of my horse’s feet . . . so that on the whole I had a bumping sort of ride there. I bled my patient & left her easier. My ride back however was somewhat different. The sky was clearer—the air mild if not almost warm and I began very unconcernedly to sing most lustily, frightening all the crows, magpies &c for half a mile round.<sup>42</sup>

Riding horses was often dangerous. In the eighteenth century, Richard Kay, who often rode between 20 and 30 miles a day, was returning in the pitch dark of a winter night, when he and his horse fell over the parapet of a bridge into the river

<sup>36</sup> *Ibid.*, vol. 6, 28 Nov. 1827

<sup>37</sup> *Ibid.* A pit galloway was a small, strong breed of horse, largely used for work in the coal mines.

<sup>38</sup> *Ibid.*, vol. 1, 28 Nov. 1826. “Sharpening” means a horse being shod with shoes containing a sharp iron spike to stop slipping.

<sup>39</sup> *Ibid.*, vol. 5, 30 June 1827.

<sup>40</sup> *Ibid.*, vol. 2, 28 Feb. 1827.

<sup>41</sup> *Ibid.*, vol. 1, 22 Nov. 1826.

<sup>42</sup> *Ibid.*, vol. 2, 1 Jan. 1827.

below—a fall of “six yards”. But he got his foot free from the stirrup, managed to pull the horse out of the river, and rode home. Neither Kay nor his horse received any harm.<sup>43</sup> Even the most experienced doctors could fall and sustain serious injury or even death. The useful life of a doctor’s horse was reckoned to be five to six years. Many country practitioners owned three or more horses as well as a carriage. An expert on horses explained in the 1890s that the town general practitioner needs:

a horse that is ready for work at all hours and looks none the worse for standing about in the rain . . . there is no doubt that the typical doctor’s horse, the horse of a hard working general practitioner, has a trying life . . . his work is never done, and he must be exceptionally sound and robust to stand the wear and tear of day or night . . . He may not look so well as the animal driven by the country medico, who generally takes a pride in his horseflesh, but he costs quite as much and does not last so long. Six years work is as much as can be expected of him.<sup>44</sup>

Transport for consultants, however, was another matter because “The man with a consulting practice wants a different horse to the humbler general practitioner. The consulting man must have a pair that go fast and well . . . and draw up at the door in a style which will inspire the patient and the patient’s friends with faith”.<sup>45</sup>

#### Transport for the élite Consultant Physicians and Surgeons

The established consultant, and some of the more prosperous town general practitioners, would usually have a carriage such as a brougham or a victoria (illustrations III and IV in Figure 1) each of which would need a coachman, suitably attired, and a groom at the stables.<sup>46</sup> Young consultants might choose a gig, or better still a cabriolet, which was owner-driven, fast, reputedly dangerous, and very fashionable with a padded platform behind the driver for a small groom known as the “tiger” because of his striped waistcoat. It was smart to have the smallest “tiger” that could be found.<sup>47</sup> Cabriolets were to the broughams as expensive sports cars to chauffeur-driven limousines—the vehicles of impetuous youth and staid middle-age respectively. As an example of impetuous youth, when in the 1820s a vacancy occurred in Worcester Infirmary due to the death of the senior physician it “made a great opening for the young physicians, Drs Hastings, Malden and Lewis who, to obtain a lead, made a grand exhibition of gigs, etc. to attract the attention of the inhabitants of Worcester!! The Gigs and highly decorated horses and footmen, were driven with such rapidity through the streets that ‘merciless death was never before so closely pursued’.”<sup>48</sup>

For consultant practice, the importance of owning the right sort of carriage could hardly be exaggerated:

<sup>43</sup> *The diary of Richard Kay*, op. cit., note 5 above.

<sup>44</sup> W J Gordon, *The horse world of London*, London, Religious Tract Society, 1893, pp. 121–2.

<sup>45</sup> *Ibid.*

<sup>46</sup> Coachmen were expected to wear top-hats, and were allowed to have side-whiskers but not

under any circumstances a moustache or beard. Watney, op. cit., note 22 above, p. 54.

<sup>47</sup> *Ibid.*, p. 23.

<sup>48</sup> Anon., *Gazette of Health*, 1825, 10: 338.

This is a comic glimpse of the youthful Charles Hastings, who later founded the staid and respectable British Medical Association.

## *Doctors and Their Transport, 1750–1914*

It is a very general and, I believe, a just opinion that a physician is never considered worthy of his fee unless he comes in a carriage. The carriage and liveries ought to be of rich colours, so that all the world may know to whom it belongs. Keep perpetually driving about in it; and though the appearance of the horses matters not, yet it is of great consequence that they go quickly . . . Nothing looks so business-like than the coach being well bespattered, and the horses covered with perspiration. You should seat yourself in it in a prominent attitude, and make it a rule to be employed writing. I always have mine filled with loose papers and notes . . . so that when I stop anyone in the street to speak to me, I look like a Cabinet Minister, that is to say fully employed. . . . The late Dr Heaviside always contended that his cream-coloured carriage picked out with sky blue, and a pair of grey horses, hooked many a patient for him as everyone knew his vehicle, it was so conspicuous.<sup>49</sup>

Dr Winslow advised physicians to go to the opera and be sure that messengers shouted loudly for their carriages when the performance was over; and to leave their carriages standing outside their house on a Sunday.<sup>50</sup> Not to be seen in a carriage could be fatal:

A peer labouring under a severe fit of gout had a surgeon warmly recommended to him by some friends, as possessing a specific for his complaint. On the medical man being announced, his lordship demanded of his servant, “Does this famous doctor come on foot, or in a carriage?” “On foot” was the reply. “Send the scoundrel about his business. Did he possess the secret he pretends to have, he would ride in his coach and six and I should have been happy to have entreated him to deliver me from this terrible disease.”<sup>51</sup>

In the 1850s, Dr Allarton could well remember when “the doctor was content to occupy the saddle or a simple gig” but now “the close carriage had become the measure of professional capacity”.<sup>52</sup> He wrote of “a medical man whose carriage was regularly near the station when the crack trains arrived from town . . . When a doctor’s carriage stands near a railway station for hours together, he is not always looking in to see a patient but looking out for one. A carriage is a very simple and a very essential thing to a medical man in practice; yet there are ways of employing even a carriage which smack of quackery—advertisement—and puff.”<sup>53</sup> Mocking pompous consultants was a popular sport in the nineteenth century so that it is difficult to know how many really behaved so outrageously. There is little doubt that many consultants and prosperous general practitioners valued a posh carriage, even if there were modest and sensible doctors who blushed at such silly nonsense.

### **The Impact of the Railways**

It might well be thought that the railways dealt a mortal blow to horse transport, and in one narrow respect this is true. The stagecoaches, the subject of so many Christmas and greeting cards and prints in hotels and pubs, with all the complex

<sup>49</sup> Anon., ‘Intercepted letters. Advice to a young physician’, Letter IV, *Lancet*, 1833–34, i: 797–8.

<sup>50</sup> F B Winslow, *Physic and physicians*, London, Longman, Orme, and Brown, 1839, p. 353.

<sup>51</sup> *Ibid.*, p. 354.

<sup>52</sup> G Allarton, *Mysteries of medical life, or doctors and their doings*, London, H Baillière, 1856, p. 60.

<sup>53</sup> *Ibid.*, p. 16.

and elaborate system of staging posts and coaching inns, had a short lifetime. They had virtually disappeared by 1850.<sup>54</sup> In all other respects, however, the railways stimulated the rapid growth of horse-drawn transport for the simple reason that: 'Without carriages and carts the railways would have been like stranded whales, giants unable to use their strength, for these were the only means of getting goods and people right to the doors of houses, warehouses, markets and factories'.<sup>55</sup>

The age of the railways was also the age of the horse and carriage. The bare statistics are striking. Between 1831 and 1872, the total number of horses (other than race horses) charged to duty in England rose from 338,343 to 857,048, although a small part of that increase was due to inclusion after 1870 of jobmasters and stage and hackney carriages, previously exempt from duty.<sup>56</sup> Likewise, between 1840 and 1870, the number of large carriages in England had increased four-fold to 120,000, while the number of light two-wheelers—the vehicles of the middle classes—had increased six-fold to 250,000 in 1870 and continued to grow to 320,000 by 1902, which was the peak year of horses and carriages before they declined with the competition of the motor car.<sup>57</sup>

How did the railways affect medical transport? Very little, as far as general practitioners were concerned.<sup>58</sup> But the railways had a profound effect on consulting practice. If, for example, a London consultant physician was asked to visit a sick Master of an Oxford College in the late 1820s, it would have meant a three-day visit by horse and carriage, with an overnight break at somewhere such as High Wycombe. In the 1840s the same consultation could easily be done in a day by train, with plenty of time for lunch and a leisurely consultation in Oxford, as well as time for the consultant when he got back to London to see one or two patients before dinner. Trains allowed consultants to travel much further and faster, enhancing their reputation and their income. In addition to the consultation fee, it was customary to charge two-thirds of the mileage in guineas as travelling expenses (thus a ninety mile journey would cost the patient sixty guineas). These were rich pickings.<sup>59</sup> And if there was not a convenient train at the right time, a consultant could order a special train, all for himself.

Dr C J B Williams, who succeeded Dr Elliotson as Professor of Medicine at University College Hospital in London, was earning £3,600 a year in 1848, largely from consulting practice. He travelled by train to see patients in Liverpool, Birmingham, Leeds, Marlborough, Torquay and Brighton. He also travelled to Woburn

<sup>54</sup> Thompson, *op. cit.*, note 3 above, p. 13.

<sup>55</sup> *Ibid.*

<sup>56</sup> *Report of Select Committee of the House of Lords on Horses*, PP, 1873, XIV, Appendix A, p. 334.

<sup>57</sup> Thompson, *op. cit.*, note 3 above, p. 16. The total number of horses in the UK rose from 1.2 million in 1811 to 3.2 million in 1901. "Private or pleasure" horses, which would include horses used by doctors, increased from 236,000 in 1811 to 600,000 in 1901. F M L Thompson (ed.), *Horses in European economic history*, Reading, The British Agricultural Society, 1983, p. 33.

<sup>58</sup> When my father was a locum in general practice in Moffat c. 1905, he sometimes was taken by the pilot engine which was used to pull the express trains over the Beattock summit, as a way to get to patients in the more distant parts of the hills. There are also anecdotes of general practitioners in hilly areas such as the Pennines, who, when the snow was deep, used trains to take them from one town or village to another and completed their journey to the patient by a gig waiting for them at the station.

<sup>59</sup> W Rivington, *The medical profession*, Dublin, Fannin, 1879, p. 52.

where he attended the Duke of Bedford. Occasionally, Williams ordered a special train all for himself, which he admitted was “a procedure which always struck me as something ludicrous—the parade of the great train with its engine, its noise and fuss, with steam and smoke . . . [and at the end of the journey] the array of guards and porters with their lanterns—the door opens—and out steps one little mortal!”<sup>60</sup>

Trains were highly efficient, but Williams still had to contend with bad roads for the last part of the journey. On one occasion he was summoned to a patient in the New Forest. He took the new railway line from London to Southampton and then “took a post-chaise through the forest, but such was the state of the road, that after much floundering through ruts and mud, the chaise got stuck in a hole, and could not be moved.” He set out to walk the last few miles but “was overtaken by the chaise, which, by the aid of some peasants, had been dragged from the slough.” The consultation over, “I set out to catch the night train from Southampton,” but once again the chaise “came down with a crash because of a broken spring”. Although it was dark, he was lucky enough to get a lift in another carriage to the station.<sup>61</sup>

One of Williams’ patients was “a certain noble lady” who was very demanding and insisted on being visited twice a day. This was difficult when she lived at Putney Heath, but beyond all reason when she moved to Brighton, even “with the offer of a special train” twice a day. Nevertheless, Williams and a colleague were once “imperiously summoned at midnight” by her Ladyship. They arrived “by a special train at Brighton at 3 in the morning, having sped from London in an hour” only to find there was neither a carriage in waiting nor one that could be hired at that hour; “so we had to trudge on foot to the further end of Brighton, a distance of four miles!” His longest journey was to visit (which he did on four separate occasions) a patient in Cornwall, near Land’s End.<sup>62</sup>

### **Too many Horses, too many Carriages, too many Traffic Deaths**

Although the replacement of stagecoaches by trains made travel much easier for out-of-town consultations, within the cities the massive increase in horse-drawn traffic was causing severe problems. In England and Wales at the start of the twentieth century, there were more than 100,000 public passenger vehicles and cabs, around half a million trade vehicles, and about half a million private carriages. There were about 14 private carriages per 1,000 inhabitants, a rate not reached by motor cars until 1926.<sup>63</sup>

With this enormous quantity of horse-drawn traffic it was necessary to scatter straw on the roads outside hospitals and the houses of the sick, to muffle the clatter of horses’ hooves and iron-clad wheels. But a more important nuisance was horse droppings. Thompson estimates that by the turn of the century, English towns had to cope with something like 10 million tons a year of horse droppings and countless gallons of horse urine. Men wore spats, and Victorian women favoured ankle-length

<sup>60</sup> C J B Williams, *Memoirs of life and work*, London, Smith and Elder, 1884, pp. 324–6.

<sup>61</sup> *Ibid.*

<sup>62</sup> *Ibid.*, p. 326.

<sup>63</sup> Thompson, *op. cit.*, note 3 above, p. 12.

outdoor coats, not out of fashion or modesty, but because of the splash of liquified manure whenever they ventured onto the roads.<sup>64</sup> An army of workers turned out every night to dump the horse manure “in the poorer quarters of towns [which] were turned into vast dung heaps, considerably aggravating the squalor, squelch, and unhealthiness of such parts of the urban environment”.<sup>65</sup>

With so many horses crammed into London, there was a shortage of stables and accommodation for grooms and coachmen. Many of the “carriage-trade”, including some medical men, preferred not to keep their own transport in London. Instead, they hired a carriage from “jobmasters” who delivered the horse and carriage to the door when required.<sup>66</sup> “Most of the doctors are horsed by the jobmaster,” wrote Gordon in 1893, and “some of the Harley Street and Cavendish Square men have half-a-dozen horses on hire . . . which are usually foraged by the jobmaster.”<sup>67</sup> The Royal Commission on Transport in London in 1906 was presented with overwhelming evidence, backed up by numerous statistics, of a city clogged with traffic jams of horse-drawn transport.<sup>68</sup> London’s transport was grinding to a halt, and it is with the greatest sense of irony that we, today, discover that 100 years ago the certain remedy for traffic congestion was seen to be rapid introduction of motor cars and other motor-driven vehicles. It was a matter of simple arithmetic. Cars took up less road space than a horse and carriage, and a single large lorry could pull a load that would require several teams of horses and wagons. And cars did not produce horse dung.

But there was another aspect that is easily forgotten. Motor cars were faster than horse-drawn vehicles, which suggests danger. In fact, cars were safer because they were easier to control, less likely to swerve or bolt, and better able to brake in an emergency.<sup>69</sup> This explains why the Victorians were increasingly disturbed, and with reason, by the number of road deaths. Today the number of deaths in England and Wales due to road-transport accidents is approximately 5,000 a year. Although we might imagine that road deaths were rare in horse-drawn days, *The Registrar General’s Report for England and Wales* recorded 2,424 deaths from horses and vehicles in 1905, and figures of the same order had been recorded annually from 1901.<sup>70</sup> This works out at an annual rate in round figures of 70 deaths per million

<sup>64</sup> *Ibid.*, p. 11. Spats is an abbreviation of “Spatterdash—a kind of long gaiter to keep the trousers and stockings from being spattered, esp. in riding”. *Oxford English Dictionary*.

<sup>65</sup> Thompson, *op. cit.*, note 3 above, p. 10. It has sometimes been suggested, but not very convincingly, that the decline in the number of horses, the amount of horse manure and the swarms of flies they attracted was one of the reasons why infant mortality began to fall after 1900.

<sup>66</sup> Gordon, *op. cit.*, note 44 above, p. 105.

<sup>67</sup> *Ibid.*, p. 121.

<sup>68</sup> A survey in 1905 found that in a period of 24 hours 15,194 vehicles entered Piccadilly of

which [horse-drawn] cabs were 5,504 (36 per cent), [horse-drawn] omnibuses 4,575 (30 per cent), carts, vans and other trade vehicles 3,341 (22 per cent), carriages 1,607 (11 per cent), and motor cars 167 (1 per cent). *Report of the Royal Commission on Transport in London*, PP, 1906, LX, LXI and LXII; LXI, p. 149.

<sup>69</sup> See, for example, the *Report of the Royal Commission on Transport in London*, PP, 1906, LX, para. 634, 14454, and 18971. As one witness remarked, “London is not subject to a 10 m.p.h. speed limit and speeds of 20 m.p.h and more are often attained [by motor cars].”

<sup>70</sup> *Registrar General’s 68th Report for England and Wales*, 1905.

population, which is not so far from the annual rate of between 80 and 100 deaths per million population for road transport accidents in the 1980s and 1990s.<sup>71</sup>

Too much should not be made of this comparison. The categories which make up these totals are not strictly comparable, and many who died from road injuries in 1900–5 might have survived with the accident services we have today. However, there are far more cars on the roads today than there were horse-drawn vehicles in 1900. If, therefore, one expresses road-transport mortality in terms of road deaths per 1,000 vehicles on the roads, it would seem that horses and carriages were a greater danger to the public in 1900 than motor vehicles in 2000.

For all these reasons, the transition to motor cars was seen in the early 1900s not only as inevitable, but urgent and essential. But how would the transition to motor cars affect the medical profession? Would they willingly give up their horses and gigs and dogcarts, could they afford cars, and would cars be sufficiently reliable for the demands of medical practice?

### **The Transition to Motor Cars**

An intermediate stage in the transition from horses to mechanical transport was the bicycle. Bicycles became practical during the 1870s as a result of three changes which made them look very much as they do today: the introduction of pneumatic tyres, the chain-driven rear wheel, and the use of the same size of wheels on the front and the back. Bartrip has shown that bicycles were “of great practical assistance, especially in rural areas” for clergymen and doctors.<sup>72</sup> Bicycles were also recommended for healthy exercise, especially by an eminent physician, Sir Benjamin W Richardson (1828–96), who set an example by riding a bicycle himself.<sup>73</sup> There is much evidence that cycling and cycling clubs were popular by the early twentieth century. In 1906 a traffic survey was carried out in London over a period of twenty-four hours. It showed that for every car that was counted there were five horse-drawn carriages and eight bicycles. The extent to which doctors used bicycles to do their rounds may be uncertain, but there is no doubt about the speed with which they took to the motor car.

When mechanically-powered road transport was introduced there were three kinds of engine. Electrical engines found their niche in trams, and steam in tractors and some heavy lorries; but the petrol engine was used almost exclusively for powering vans, motor cycles and motor cars.<sup>74</sup> The first petrol-driven cars were produced in Germany by Benz in 1878 and Daimler in the 1880s. Germany, France and the USA all had a head start on Britain so that many of the early cars were imported.<sup>75</sup> By the end of the nineteenth century, three classes of motor car were available to doctors:

<sup>71</sup> Office of Population Censuses and Surveys, series DH1 no. 25. *Mortality Statistics. Serial Tables. Review of the Registrar General on deaths in England and Wales, 1841–1990*, p. xiii, Figure F.

<sup>72</sup> Bartrip, *op. cit.*, note 2 above, pp. 139–51.

<sup>73</sup> Obituary notice, *Br. med. J.*, 1896, ii: 1612.

<sup>74</sup> *Autocar*, 7 Oct. 1899, 4: 888–96.

<sup>75</sup> H J Dyos, and D H Aldcroft, *British transport*, Leicester University Press, 1969. The first motor cycles appeared in the 1860s. *The Macmillan encyclopaedia*, London, Macmillan, 1995.

1. The motorcycle car, which was either a tricycle or quadricycle and possessed pedals to get it started and help it up steep hills. It was cheap but lacked power.
2. The second class had seats for two people and generally a hood to keep the rain off, costing between £150 and £200. This was the motorized equivalent of the horse and gig or dogcart (see illustration V in Figure 1).
3. The third was the motor for four to six persons, often chauffeur-driven and the equivalent of the carriage and coachman. These could cost as much as £600 to £900 and were too expensive for most doctors.

In Britain, cars began to appear very rapidly as a practical means of transport after 1896, when absurdly oppressive speed restrictions were repealed.<sup>76</sup> Statistics vary, but according to one source there were, in round numbers, 30,000 registered motor cars and motor cycles by 1904 and 250,000 by 1914.<sup>77</sup> According to the Royal Commission on Motor Cars in 1906, however, the numbers were higher: 26,877 private cars and 33,257 motorcycles had been registered in Britain up to September 1905, as well as 4,560 trade motor vehicles, and 1,011 “public motor conveyances”—a grand total of 65,705.<sup>78</sup> Indeed, the transition to motorized transport was so rapid that a survey in 1913 found that only 6 per cent of passenger vehicles in London were still horse-drawn.<sup>79</sup>

It is often said that motor cars were the “playthings of the rich” until cheap cars such as the Austin 7 and the Model T Ford appeared in the 1920s. This is not true. From the late 1890s, the motor car was seen as a practical proposition that was especially suitable for, amongst others, doctors and commercial travellers.

### Cars for Medical Practitioners

As far as medical practitioners were concerned, the timing of the transition to motor cars depended on the type of practice and the state of the roads, and the prosperity of the doctor. It was probably the younger and more adventurous doctors who were the early converts to motoring. One of the earliest was Dr Tuke of Harrogate who, in 1896, bought a 4-seater car with a hood and a four and a half horse power motor, which would tackle gradients of 1 in 8.<sup>80</sup> As the *Lancet* remarked in 1897:

Motor carriages should prove especially useful to the general practitioner, and particularly to the country one, on whose shoulders the burden of maintaining the two or three horses, with their attendant expenses, necessary for a large and scattered practice, falls very heavily.<sup>81</sup>

<sup>76</sup> Until 1896 the speed of “road locomotives” was limited to 2 m.p.h. in towns and 4 m.p.h. in the country. Bartrip, *op. cit.*, note 2 above, p.152.

<sup>77</sup> T C Barker, ‘Urban transport’, in M J Freeman and D H Aldcroft (eds), *Transport in Victorian Britain*, Manchester University Press, 1988, pp. 134–70, p. 163. The variation in statistics is probably due to the failure of many of the original sources to state whether they were referring to England, England and Wales, Britain or the UK.

<sup>78</sup> *Report of Royal Commission on Motor Cars*, PP, 1906, XLVIII, appendix A1, pp. 610 and 611.

<sup>79</sup> *Ibid.*

<sup>80</sup> *Br. med. J.*, 1897, i: 895.

<sup>81</sup> Anon., *Lancet*, 1897, i: 824. It was also noted that in 1896 a physician in Youngstown, Ohio, claimed to be the first medical man in the United States to use a car for working his practice.

Two years later, however, a leading article in the *Lancet* noted that: “Of all professions, the medical profession was the one from which the inventors of horseless carriages might well expect support . . . but so far they have not got to the stage of replacing the loving pride in a horse and trap.”<sup>82</sup> In 1897 Dr Lattey of Southam doubted if motor cars were sufficiently reliable so far, but doubtless would be in the future,<sup>83</sup> and an anonymous doctor wrote in 1899, “By all means keep a car for amusement, but keep the more reliable horse for work”.<sup>84</sup> In 1903, a correspondent who signed himself “A sadder and a wiser man”, said that he had purchased a car for £350, and it had been “one continued bother, worry, and annoyance in every way from the very first”.<sup>85</sup>

In the early days of medical motoring it is not surprising that there were sceptics as well as enthusiasts. It was, after all, a great risk to abandon the familiar horse and carriage for a vehicle that might break down and leave its owner stranded. But the number of medical motoring enthusiasts was growing rapidly by the end of the century. Proud of their spirit of adventure, they were eager to write of the way their lives had been transformed. Dr Irwin of Gloucester bought a Daimler in 1900 which could “climb anything a horse can drag a dogcart up” and allowed him to do his work in half the time. “Needless to say”, he added, “I do not keep to the 12 miles an hour limit”.<sup>86</sup> One of the most adventurous was a Scottish doctor who, in 1899, wrote to describe a fault-free journey by car from Paris to Edinburgh; the only delays occurred in loading the car onto the cross channel ferry.<sup>87</sup>

In October 1897, the motoring magazine, *Autocar*, published a special section on “motor cars for medical men”.<sup>88</sup> Unexpectedly, the two leading and generally austere medical journals, the *Lancet* and the *British Medical Journal* were, from the late 1890s, ardent advocates of the motor car. As well as leading articles and letters on motoring, the *British Medical Journal* took the unusual step in 1907 of publishing seven substantial articles by a motoring correspondent, illustrated with complex engineering drawings, in which the author described in considerable detail such matters as the calculation of horse power, the workings of the carburettor, the gear box, transmission, the differential gear, sparking plugs and valves, steering mechanisms, tyres, and so on.<sup>89</sup>

The reason for this series of articles was simple. There were few trained car mechanics. Most servicing and repairs would have to be carried out by the doctor himself.<sup>90</sup> It was therefore “essential that the owner [of a motor car] should be at some trouble to master the construction and working of the machine he selects. In

<sup>82</sup> Anon., leading article, *Lancet*, 1899, i: 1652.

<sup>83</sup> *Br. med. J.*, 1897, i: 956.

<sup>84</sup> *Br. med. J.*, 1899, ii: 283.

<sup>85</sup> *Br. med. J.*, 1903, i: 44.

<sup>86</sup> *Br. med. J.*, 1900, i: 1327.

<sup>87</sup> *Br. med. J.*, 1899, ii: 1240. The French had got even further. There was a motor car race from Paris to Bordeaux (the winner averaged 15 m.p.h.) followed by an exhibition (which included the winning vehicle) of motor cars in Paris in 1896. Leading article, *Lancet*, 1896, i: 613.

<sup>88</sup> *Autocar*, 7 Oct. 1899, 4: 888–96.

<sup>89</sup> *Br. med. J.*, 1907, i: 695–7, 757–8, 821–2, 883–6, 1001–4, 1069–72, 1133–5.

<sup>90</sup> Help might have been expected from the RAC and the AA. The RAC was founded in 1897 as the Automobile Club of Great Britain, but the rescue service was not introduced until after the First World War.

fairly level country an 8 h.p. car, or even a 6 h.p. would do, but in hilly country a 10 h.p. car would be best.”<sup>91</sup> A two-seater was preferable to a four-seater, and an openable hood rather than a saloon for reason of weight. Too heavy a car would have difficulties on steep hills. Too powerful a car wore out the tyres more quickly. “The most desirable car for the medical motorist . . . is one of 8 to 10 h.p. with two cylinders, two-seated” with a windscreen and hood similar to the car illustrated in Figure 1. The correspondent concluded that “The motor . . . does the work more quickly, and so either gives more leisure or enables its owner to do more work. A large number of medical men . . . declare that nothing would induce them to go back to horses again.”<sup>92</sup>

Nevertheless, for various reasons, including economy and fear of breakdowns, many general practitioners reserved their cars for distant visits, preferring to do local calls on foot, horseback, bicycle, or motor-cycle. In 1899, Dr Aldridge of Southampton preferred horses for town visits for two reasons: first, because the prospect of repeatedly having to re-start the engine was not to be taken lightly; secondly “because of the crowd which always collects”. So he used a car for country visits, and, like many practitioners in this period, he walked, used a cycle, or a horse for local visits, saving the motor car for distant visits where the patient lived near a road with a good surface.<sup>93</sup>

Dr Huskie took over a practice in Moffat in Scotland in 1891 and was expected to wear a silk hat and tailcoat when visiting on foot or in a dogcart with a coachman.<sup>94</sup> He soon started using a bicycle, which required changing into a bowler hat and a jacket. Dr Huskie often rose at 5 a.m. and started off on his bicycle to visit patients, often as far as 10 miles from his house. He then returned home for breakfast and had the rest of the day for longer visits in the dogcart. He bought his first car in 1905, for his practice extended 23 miles into Selkirkshire, and changed his clothes again to travel by horseback to patients high up in the hills where the roads (if any) were impossible for motor cars.<sup>95</sup>

Dr Clement Pryce Gunn started as an assistant to a general practitioner in Newburgh where there were four horses and two carriages. When he moved to his own practice in Peebles, he bought a dogcart. Claiming to be the first person in his area to buy a motor vehicle in about 1900—the year, as it happens, when the first Automobile Reliability Trial (a drive from London to Edinburgh) took place—he began his motoring career with a 2 h.p. motor tricycle, which was probably all he could afford.<sup>96</sup> Thomas English, a Yorkshire practitioner, walked his rounds at first, and when he could afford it bought two horses (used on alternate days) and a gig. He finally bought a car in 1911 to which some of his patients objected. They felt it made him inaccessible as he whizzed past at high speed. Not everyone, however,

<sup>91</sup> *Br. med. J.*, 1907, i: 821.

<sup>92</sup> *Ibid.*

<sup>93</sup> *Autocar*, 7 Oct. 1899, 4: 888–96, p. 889.

<sup>94</sup> The author’s father, Dr Andrew Loudon, was employed as a locum to Dr Huskie from about 1903. It was his first venture into general practice and he often travelled in the dogcart.

<sup>95</sup> David Huskie, ‘Valedictory address on “Impressions and experiences of a country doctor in the ‘Nineties and After”’, *Trans. Medico-Chir. Soc. Edin.*, session CXVII, 1937–38: 1–12, p. 9.

<sup>96</sup> Rutherford Crockett (ed.), *Leaves from the life of a country doctor*, Edinburgh, Moray Press, 1935.

changed to a car. A Yorkshire practitioner in Swaledale continued to use a horse well into the inter-war period.<sup>97</sup>

### Capital and Running Costs of Cars and Horses

Was changing to cars economically sound? The answer to that question was a resounding “yes”. In general, a motor car was no more expensive to buy than two horses and a carriage, and much less expensive to run. One doctor calculated that the cost of a horse, carriage, and harness lay between £135 and £165, whereas a new car of a kind suitable for general practice could be bought for £165 to £185, and a motor tricycle cost as little as £50 to £60.<sup>98</sup> But the real savings were in running costs. “A country practitioner” who changed to a car which cost him £180, found his running costs were one-third of the cost of his previous two horses and two carriages.<sup>99</sup> Another calculated that his previous costs of horse transport in the form of forage, a coachman, and stabling, came to £2.8.0 a week, while the running costs of his car, including “a man” to clean it and look after it, and rent for a “shed”, cost 38s. 6d. a week.<sup>100</sup> Likewise, Dr Charpentier MD found that a car cost about £180, the same as two horses and a victoria. But the running cost of horse-drawn transport was £98.5.0 a year compared with that of £36.19.0 a year for a car.<sup>101</sup>

In the 1890s and early 1900s when the mean income for a general practitioner established in practice for ten years was between £600 and £900,<sup>102</sup> the cost of buying a car was between a quarter and a third of annual gross income. That ratio appears to have remained more or less constant throughout the twentieth century. As far as running costs were concerned, petrol came to no more than 1d. a mile, but tyres wore out very quickly and were always the largest item. In addition there was the cost of repairs, and the employment of a “man” or a “boy”.<sup>103</sup> These costs usually added up to about £100 but were sometimes as little as £50 a year. The running costs of a horse and carriage which included forage, shoeing, the employment of a groom and stabling (two horses and a carriage took up much more room than a motor car) averaged between £150 a year with one horse, and £300 a year for two or three.<sup>104</sup> Thus a general practitioner in 1905 could expect to save at least £100 a year (roughly equivalent to £6,000 in 1999) by changing to a motor car.

### The Advantages of Cars for medical Practitioners

But there was more to it than money. Unlike horses, cars did not get tired or lame or catch colds. As a correspondent to the *British Medical Journal* said in the

<sup>97</sup> Digby, *Making a medical living*, op. cit., note 2 above, p. 117.

<sup>98</sup> Anon., ‘Horseless carriages for medical men’, *Lancet*, 1896, i: 613.

<sup>99</sup> *Autocar*, 7 Oct. 1899, 4: 888–96, p. 890.

<sup>100</sup> *Ibid.* See also evidence of Dr Tuke of Harrogate who estimated that he could travel 60 miles at a cost of  $\frac{1}{2}$ d to 1d a mile. *Br. med. J.*, 1897, i: 895.

<sup>101</sup> *Ibid.* See also the letter from Dr Phillips of Coventry, *Br. med. J.*, 1899, ii: 57.

<sup>102</sup> Digby, *Making a medical living*, op. cit., note 2 above, table 5.1, p. 143.

<sup>103</sup> The insistence at this time of employing a “man” or a “boy” when owning a car may have been a hangover from the custom of employing a groom and/or coachman in the past.

<sup>104</sup> *Autocar*, 7 Oct. 1899, 4: 888–96, 821–2.

1890s, “The “mechanical horse” is never sick or sorry, never tired. He will go on all day, and if need be all night. He does not require a stable. He does not grow ill or die. He will not run away. He does not deposit ordure on the roads”.<sup>105</sup> Cars were also much faster—faster, in fact, than we might expect today. The Royal Commission on Motor Cars in 1906 was told the results of measuring, by an “electrical timing device”, the speed of 2,131 cars on an open road in East Sussex. 51 per cent were travelling between 15 and 20 m.p.h., 40 per cent between 20 and 30 m.p.h., and most of the remaining 9 per cent were going over 30 m.p.h.<sup>106</sup> A Select Parliamentary Committee was assured in 1912 that a small popular motor car could drive from London to Brighton at an average speed of 23–25 m.p.h.<sup>107</sup> No horse and dogcart could hope to match such speed, let alone keep it up all day.

Speed and comfort mattered. It allowed doctors to travel much further, and with much less fatigue than their predecessors. General practitioners could visit more patients and expand their practice area, just as better roads in the early nineteenth century had allowed practitioners to travel further and faster in the age of the carriage. As early as 1896, Dr Tuke of Harrogate travelled 60 miles and visited 20 to 30 patients a day in his four and a half horsepower car at an estimated cost of around 1d. a mile.<sup>108</sup>

The car came into its own for night visits. In 1899, Dr Stedman of Worcester wrote “[My car] stands in the shed, always ready. I can walk up to it in the night and will have *driven* it out into the road, before the messenger can button up his coat and put his gloves on. I could never get my carriage [and groom] at the door under three-quarters of an hour.”<sup>109</sup> In 1906, Mr Lockwood, a surgeon, said of one of his patients that: “If I had had to rely on horses when called up at night, and turned out the horse and man . . . he would possibly have died. I had my motor car which meant the turn of a handle and I was off”.<sup>110</sup>

Medical practitioners who failed to be converted to motor cars by the outbreak of the First World War probably fell into several categories: those who loved their horses too much to contemplate change, those close to retiring age, those whose practice in cities was so compact it could easily be covered by foot or bicycle or, conversely, those who lived in such remote and mountainous country that cars were not practical. A few were too poor to afford a car, such as the doctors of the Highlands and Islands Medical Service in 1912–13. Here it was common for doctors to combine ferry trips with walking or sometimes horseback. Although the Dewar Committee concluded that “Motor locomotion by land and water would immensely increase . . . the working capacity of the existing medical service . . . the doctor cannot afford to purchase a motor car or motor boat . . . [although] a few of the younger men have provided themselves with motor cycles which, however, are far from suitable on Highland roads”. The average gross income of these doctors was only

<sup>105</sup> Bartrip, *op. cit.*, note 2 above, p. 152.

<sup>106</sup> *Report of Royal Commission on Motor Cars*, PP, 1906, XLVIII, p. 650.

<sup>107</sup> *Report of Select Committee on the Horse-Power Rating of Motor Cars*, PP, 1912–13, XLII, p. 243, q.144.

<sup>108</sup> *Br. med. J.*, 1897, i: 895.

<sup>109</sup> *Autocar*, 7 Oct. 1899, 4: 907.

<sup>110</sup> *Report of Royal Commission on Motor Cars*, PP, 1906, XLVIII, para. 12,448.

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£200 a year. Many earned as little as £100 and a few just £50 a year. No one at that level of income could afford a motor car.<sup>111</sup>

This paper has been confined to the revolution in transport in Britain. But it is probable that the same effects on medical practice occurred in other countries. Starr, for instance, has written that in the USA during the early years of the twentieth century, cars halved the time required for house calls: “It is the same as if the day had forty-eight hours instead of twenty-four” said one physician. Cars were less costly than horses in the USA just as they were in Britain. One calculation showed that the cost per mile of travel by horse was 13c., while by car it was only 5.6c. Cars widened the doctors’ market geographically and increased their incomes. Other technologies such as the telephone and motor ambulances increased the availability of medical care, and improved access to doctors led to greater dependency. Thus, Starr calculates that, in the mid-nineteenth century, physicians saw on average five to seven patients a day. By the 1940s the average was 18 to 22 patients a day.<sup>112</sup>

What would have happened if motor cars, vans, lorries and tractors had *not* been introduced at the beginning of the twentieth century and everyone had continued to rely on horses? According to Thompson, there were about 30 million horses in the USA in 1902, the peak year. Farm horses alone consumed all that could be grown on 88 million acres, which was about a quarter of the total crop area in the USA. If you add to this the crop area required for town horses, and even more for the substantial export of horse feed (countries like Britain imported a large amount of horse fodder from the USA), “any appreciably greater numbers of horses would have been quite literally insupportable”.<sup>113</sup>

### **Conclusion**

Throughout the whole period from 1750 to 1914 prosperous doctors such as the consultant physicians and surgeons travelled in relative comfort in closed carriages driven by coachmen, and later in the motor cars from the upper end of the market. By the 1930s, some London consultants had a Rolls Royce and a chauffeur. For these, the élite of the profession, the introduction of the railways was the most important factor in increasing the extent of practice and their incomes. But it was not trains, but changes in road transport that had a radical effect on general practitioners, especially those who practised in the country.

In the early phase of our period, visiting by horseback was a hard and exhausting life which involved travelling long distances every day, while fully exposed to the discomfort (and sometimes danger) of the weather. Where the state of the roads allowed it, the introduction of the gig and dogcart must have been a blessing. When everyone else in the professional classes was doing so, doctors would probably have

<sup>111</sup> *Report on the Highland and Islands Medical Service Committee*, (The Dewar Report), PP, 1912–13, XLII, pp. 13, 14 and 17.

<sup>112</sup> Paul Starr, *The social transformation of American medicine*, New York, BasicBooks, 1982, p. 70–1.

<sup>113</sup> Thompson, *op. cit.*, note 3 above, p. 19.

changed to motor cars in any case. But it was the factors I have outlined above which explain how the motor car transformed general practice. Cars were more comfortable, faster, and above all cheaper than the horse and a carriage. Cars allowed general practitioners to see more patients in a day. Cars allowed general practitioners in a market town surrounded by numerous villages to increase the size of their practice area and take over some of the small village practices. For reasons such as these, doctors in general, and general practitioners in particular, were early converts to the motor car, the most important change in medical transport since the beginning of medical practice.