
The doctor in the Industrial Revolution

MICHAEL E. ROSE

Department of History, University of Manchester

W. R. Lee, in his paper on Robert Baker published in a previous issue of this journal, has described Leeds, the home of both Baker and Charles Turner Thackrah, as 'the cradle of industrial medicine'.¹ Leeds was doubtless unique in nurturing two such eminent practitioners of this branch of medicine, but many of the other expanding towns of the late 18th and early 19th centuries could claim to be the dwelling place of doctors keenly interested, if not in industrial medicine, at least in social medicine, in the application of their professional skills and knowledge to the problems of an industrializing and urbanizing society. Thus Manchester could boast Thomas Percival, John Ferriar, James Phillips Kay and Peter Gaskell; Liverpool, James Currie and William Duncan; Edinburgh, William Alison; and Sheffield, George Calvert Holland.² In London the names were legion but included Southwood Smith, Neil Arnott, William Farr, Thomas Wakley, Edward Smith and John Simon prominent amongst them.³ Amongst smaller towns, Chester had its John Haygarth and Bristol its William Budd, and doubtless similar if less well known examples could be found in most urban communities of any size in this period.⁴ It is the object of this paper to assess the reasons for the growing interest and involvement of medical practitioners in the problems of social reform created by the first Industrial Revolution.

One of the most important, vital and disturbing features of this process was the growth of the industrial town. Manchester, Leeds, Birmingham and their fellows symbolized in many ways the increasing power and wealth of the industrial and commercial middle class, presenting as they did a challenge to the long established social and political supremacy of the landed classes, the aristocracy, the squirearchy and the clergy of the Church of England. The architecture of the new towns, their factories and warehouses, chapels and town halls, and later their railway stations gave expression in

concrete form to this increasing wealth, power and self-confidence. Weekly newspapers like the *Manchester Guardian*, the *Leeds Mercury* or the *Bradford Observer* voiced the opinions and demands of the urban middle classes. Literary and Philosophical Societies, Statistical Societies and Chambers of Commerce were formed to promote discussion of problems and to form opinion on them. In these aspects of urban development, the medical profession played a prominent role. In Leeds, it was a paper on 'Town Halls', read to the Leeds Philosophical and Literary Society by the secretary of the Leeds Improvement Society, Dr. J. D. Heaton, which launched the campaign to build a new town hall in Leeds, a development which Asa Briggs has described as a 'case study in Victorian civic pride'.⁵ Robert Baker was a member of Leeds Town Council in the 1830s, and G. C. Holland an alderman of Sheffield in his later years.⁶

'Lit. and Phil.' and Statistical Societies were frequently dominated by professional men, with doctors well to the fore. Holland, a member of Sheffield Literary and Philosophic Society, remarked that of its 86 proprietors, subscribing two guineas per annum each, only 19 were commercial men, 'the remainder being generally professional gentlemen or persons in easy circumstances'.⁷ C. T. Thackrah became the first secretary of the Leeds Philosophical and Literary Society after its formation in 1819.⁸ In Manchester, Thomas Percival and John Ferriar played an important part in the debates of the Literary and Philosophical Society in the 1790s, whilst some 40 years later James Kay was one of the founder members of the Manchester Statistical Society.⁹ In Liverpool, James Currie helped to revive the Literary Society and became its president.¹⁰

Yet, despite their prominent role in the activities of the new industrial towns, many doctors did not subscribe unreservedly to the creed of economic, religious and political freedom which some of their

wealthier inhabitants expressed, nor to the idea of a society open to free competition in which a hard working, enterprising man could pull himself up by his own boot straps, the ideas which Harold Perkin has described as constituting the 'Entrepreneurial Ideal'. The civic pride of many doctors was severely tempered by their realization of civic deficiencies. 'Here in the most advanced nation in Europe', wrote William Farr of Manchester in 1846, 'in the midst of a population unmatched for its energy, industry, manufacturing skill – in Manchester the centre of a victorious agitation for commercial freedom – aspiring to literary culture – where Percival wrote and Dalton lived – 13 362 children perished in seven years over and above the mortality natural to mankind'.¹² C. T. Thackrah held that the air of a large town was always in 'an unnatural state', and that less than 10% of its inhabitants enjoyed good health.¹³ Peter Gaskell described life in the industrial town as 'one long disease and death the result of physical exhaustion'.¹⁴ 'The only memorials of your active minds in relation to the poor are the large, well lighted and ceaseless working factories', G. C. Holland told the 'millocrats'.¹⁵

Medical men saw that behind the façade of commercial and civic buildings lurked new and massive social problems created by rapid industrialization and urbanization. The 'large, well lighted and ceaseless working factories' created new patterns of work and, employing as they did a high proportion of female and child labour, placed a heavy strain on the traditional structure of the working class family.¹⁶ New industries brought with them dangers to health and safety from unguarded machinery, dust-laden atmosphere and pollution of air and water. The population of the manufacturing towns swelled rapidly due to immigration and higher birth rates. In such circumstances living conditions deteriorated as more people crowded into existing houses, filling them from cellar to garret. Cheap back-to-back houses were run up on small, expensive plots of land close to the factories. Little or no provision was made for shops, churches, parks or schools, frequently none even for sewage or refuse disposal. Such areas rapidly became slums, breeding grounds for disease, crime and hatred of the wealthy employer.

In their reaction against such conditions, medical men were inevitably influenced by the growing humanitarianism of the age. 'I speak as a medical man and a friend of humanity', Thackrah told the Parliamentary Select Committee on the labour of children in factories in 1831.¹⁷ Such humanity was frequently tinged with the religious moralizing common to Evangelical Christians. Thackrah strongly condemned the intemperance of high wage earners.¹⁸ Baker waxed strong on the immorality of mill girls.¹⁹ In such attitudes, the doctors were far from alone, being joined by other professional men

like Richard Oastler, aristocrats like Lord Ashley, and manufacturers like John Fielden or John Wood.

Yet it was more than charitable, humane, moral feelings which drove medical men to examine and attempt to tackle the social problems of the new industrial society. Charity, as Thackrah saw, was too easy. 'To examine the habits of workmen is indeed less agreeable to most persons than a subscription for the relief of distress', he wrote.²⁰ The doctor frequently knew far more of the condition of the labouring classes than could be gained from service on a charitable committee. Young doctors were often compelled from financial necessity to serve as parish or town surgeons, treating the sick poor in return for a miserly salary paid by the overseers of the poor. Thackrah and Baker both served for a time as town surgeons in Leeds.²¹ Others began their medical careers as club doctors, treating the members of a workingmen's sick club or friendly society in return for a low remuneration. It was by this means that Dr. Pomfret of Hollingworth came to discover the awful conditions of life and work for railway navvies excavating Woodhead Tunnel through the wild Pennine moors in the early 1840s.²² Even charitable work involved doctors in more than mere financial donations. They were called upon to give of their professional skills by serving at the charitable dispensaries established in working class areas of many large towns to give cheap medical advice and treatment to the poor. James Kay was medical officer to the Ardwick Dispensary in the 1820s and William Alison, physician to Edinburgh's New Town Dispensary after 1815.²³

Those who worked in such situations were often shocked by the conditions they encountered. Yet, by and large, they did not give vent to their feelings in emotional outbursts against industrial capitalism. In this they differed from contemporaries like Richard Oastler or William Cobbett, men confused and perplexed by industrialization who reacted by striking out blindly against it. Works like C. T. Thackrah's *Effects of Arts, Trades and Professions . . . on Health and Longevity*, J. P. Kay's *Moral and Physical Condition of the Working Classes* or Peter Gaskell's *Artisans and Machinery* were not mere tirades against the industrial system but attempts to investigate the lives of the urban working classes and to isolate evils by enquiry and experiment. The skill with which several of them used the infant science of statistics proved invaluable in this effort. From Percival's proposals for 'more accurate and comprehensive bills of mortality for Manchester' in the 1780s, through Baker's cholera map of Leeds in the 1830s, to William Farr's herculean labours in the Registrar General's Department in the 1840s, '50s and '60s, the medical profession stressed the value of the statistical approach to social problems.²⁴

Having investigated, medical men published their

findings, if not in book form, then through the debates of the Literary and Philosophical or Statistical Societies of which they were members, through articles in, or letters to, newspapers, through pamphlets, or in evidence to Parliamentary Select Committees or to Royal Commissions. By such means, the public became aware of the social evils they had exposed and began to demand legislative action. One of the most outstanding examples of this approach is Edwin Chadwick's *Report on the Sanitary Condition of the Labouring Population of 1842* to which doctors in all parts of the country contributed the fruits of their investigations into the state of public health in their own locality.

In attempting to explain this keenness for rational, scientific enquiry, two points are worthy of note. In the first place, as M. W. Flinn has shown, many of the doctors most prominent in the development of social medicine were graduates of the Edinburgh medical school which was expanding rapidly in the late 18th and early 19th century.²⁵ John Haygarth, Thomas Percival, John Ferriar, James Kay, Southwood Smith, G. C. Holland, James Currie and William Alison were all Edinburgh trained. Edinburgh and Glasgow Universities, in the second half of the 18th century, were the home of scholars who have been called the "classical sociologists" of the 18th century Scottish historical school.²⁶ Academics like Adam Ferguson, Adam Smith, William Robertson and John Millar were investigating the relationships between government, society and the economy and developing early theories of class structure. Through the medium of teachers like Dugald Stewart, Professor of Moral Philosophy at Edinburgh, some of this interest in social investigation was conveyed to students of the medical school.

Secondly, there is the close connection which several doctors, particularly those who trained or practised in London, had with an even more potent intellectual influence, that of Benthamism or Utilitarianism.²⁷ The young disciples of the ageing Bentham in the 1820s and early 1830s preached the doctrine of utility, of testing all institutions by the criterion of their usefulness in promoting 'the greatest happiness of the greatest number'. The best way to discover this seemed to be by rational scientific enquiry, and by the use of the expert in government instead of the haphazard amateurism of aristocratic ministers and gentlemanly justices of the peace. It is perhaps significant that one of the earliest schools in the new University of London, whose establishment in 1828 was strongly encouraged and influenced by the Benthamites, was a medical school which numbered William Farr among its first graduates.²⁸

With their horror of waste, idleness and corruption and their idea of justification by service to society, the Benthamites, as Perkin has shown, made a con-

siderable contribution to the development of the Professional Ideal, the ideal which held that success in life lay through intensive training, expert ability and a high standard of service regardless of pecuniary motives.²⁹ Such an ideal posed a challenge to the Entrepreneurial Ideal. Manufacturers, Thackrah wrote in 1832, were 'acquainted far less with physiology than with political economy, their better feelings will be overcome by the opportunity of increasing profit.'³⁰ Doctors who embraced this professional ideal felt that high urban death rates or the apparently unnecessary disease and mortality caused by bad working conditions cast a slur upon it which must be eradicated. Thus they provided ideal public servants for the new style of government which was slowly and painfully emerging in the 1830s, government which was not only passing social legislation but establishing the machinery for its enforcement through the medium of the inspectorate. Robert Baker in the factories, Southwood Smith and John Simon in public health, Edward Smith in the poor law, and James Kay in the poor law and in education were prominent amongst the early officials of this type of government.³¹

There remains, however, one further factor to consider in this discussion of the role played by doctors in early 19th century social reform. It was during this period that the medical profession itself emerged in the face of severe difficulties to full social recognition. Up to the end of the 18th century, only the highest order of medical practitioners, the aristocratic physicians, had been granted the status of a gentlemanly profession. The surgeon and the apothecary had been regarded in much the same light as the tradesmen from whose ranks they had sprung.³² By 1800 the status of the surgeon was improving rapidly and even that of the lowly apothecary received a boost as a result of the Apothecaries Act of 1815.³³ There remained, however, formidable obstacles to be overcome. One of these lay in the conservative attitudes of senior members of the profession, and particularly of the Royal Colleges in London. Thackrah, and later Robert Baker, in their struggles with the hierarchy at Leeds Infirmary call to mind the difficulties encountered by George Eliot's Dr. Lydgate with the senior medical men of Middlemarch.³⁴

Another barrier to professional progress was formed by those who denigrated the medical profession, particularly those in authority, from the War Office to the parish overseers of the poor. In their desire to keep down taxes and rates, such men required young doctors to give their services for a pittance and frequently ignored their advice, particularly where this involved further expenditure of public funds. In the campaign against such attitudes a prominent role was played by Thomas Wakley, the London surgeon, who in 1823 founded the

radical medical journal *The Lancet* which, for the next 40 years, launched regular broadsides against those, whether inside or outside the medical profession, whose attitudes seemed detrimental to its progress.³⁵ Thus the apparently minor representation given to doctors on the local boards of health established to combat the cholera outbreak of 1831-2 roused the ire of *The Lancet*. 'Ye powers! The "Local Boards" of Health are to be composed of "the chief magistrate, the clergymen, two or three of the most respectable inhabitants, and *one or more of the medical men*"(sic) . . . as a kind of ballast or makeweight'.³⁶

In seeking greater recognition and better treatment for their own profession, doctors were liable to be sympathetic to the oppressed of other classes who seemed like them to be suffering at the incompetent and ignorant hands of corrupt vested interests. Their active pressure for social reform might in some cases form a part of their own struggle for improvement. An excellent example of this is the campaign waged by poor law medical officers from the 1840s onwards for better treatment of the sick poor, particularly those confined in workhouse infirmaries.³⁷ In this campaign, which bore fruit in the 1860s, *The Lancet* played an important part, but the heat and burden of the day was borne by a number of unsung, half forgotten provincial doctors like Dr. Richard Griffin of Weymouth, founder of the Poor Law Medical Officers' Association, Dr. Robert Tatham of Huddersfield and Dr. Garlick of Halifax.³⁸

Their professional training and experience, their intellectual contacts, their aspirations and their grievances all helped to make medical practitioners intensely aware of the social problems created by industrial and urban development, and keen to use their professional skills to help solve them. This frequently proved a difficult if not impossible task. Thackrah, Baker, Kay, Wakley and their colleagues should not be regarded as 'Eminent Victorians' whose success was assured, but as radical crusading young men who often had to take hard knocks for the cause. Thackrah had aspersions cast on his private character, Baker was attacked as a 'Tool of tyranny' by Richard Oastler, the 'Factory King', Dr. Pomfret was threatened for having 'shamefully betrayed his employers'.³⁹ Yet their perseverance helped to make of medicine what, one hopes, it still is, a radical profession dedicated to human betterment.

'Lydgate did not mean to be one of those failures, and there was the better hope of him because his scientific interest soon took the form of a professional enthusiasm; he had a youthful belief in his bread-winning work, not to be stifled by that initiation in makeshift called his 'prentice days; and he carried to his studies in London, Edinburgh and Paris, the conviction that the medical profession as it might be

was the finest in the world; presenting the most perfect interchange between science and art; offering the most direct alliance between intellectual conquest and the social good. . . . There was another attraction in this profession; it wanted reform, and gave a man an opportunity for some indignant resolve to reject its venal decorations and other humbug, and to be the possessor of genuine though undemanded qualifications'.⁴⁰

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References

The paper as it stands is based largely upon secondary sources and I owe a particular debt to two works, viz.

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J. P. Kay (later Kay-Shuttleworth) (1804-1877). M.D. Edin. Secretary of Manchester Board of Health (1832). Asst. Poor Law Commissioner (1836). Secretary to Education Committee of Privy Council (1839). Author of *The Moral and Physical Condition of the Working Classes Employed in the Cotton Manufacture in Manchester*. Ridgway, London (1832). Assisted Arnott and Southwood Smith in enquiry into causes of fever in London (1838). Fully absorbed in educational work after 1839. (D.N.B. Frank Smith, *The Life and Work of Sir James Kay-Shuttleworth*. Murray, London (1923).)

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