



Reinvention, Renewal, or Repetition? The Great Western Railway and Occupational Safety on Britain's Railways, c.1900-c.1920

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In 1913, the Great Western Railway introduced an occupational safety education campaign that appeared to be a radical break with all previous methods of promoting safety in the British industrial workplace. In this paper, I assess the extent to which this “new” campaign reinvented occupational safety education in Britain. I argue that the Great Western combined new techniques of communicating safety messages with the relatively traditional content of those messages. Rather than a simple repetition of previous attempts or an absolute reinvention of safety, “Safety First” was a renewal of existing conceptions of occupational safety education. I examine both the methods of conveying safety messages and the messages themselves, and place the campaign within the broader context of power relationships among union, state, and company.

Occupational health and safety, as a subject of historical study, has suffered from a perception that it is somehow “peripheral” to other areas of inquiry. This seems to be as true of business history as it is of every other branch of history, in the United States and in Britain. The relative neglect is perhaps surprising, as safety issues were (and, indeed, still are) an important factor in relations within the workplace. We can partly explain such a dearth of attention by the relatively hidden nature of occupational safety. Unlike matters concerning the consumer, workplaces were obscured from public view; those who were directly affected by health and safety issues tended to lack a political (or even a public) voice, and were consequently unable to articulate the shortcomings of their work environments.¹

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However, within approximately the last twenty years, health and safety issues have received increasing attention by historians. This is true of business history, with studies emphasizing the interaction of state, technology, and company in producing safe (or unsafe) work conditions.² It has been recognized that occupational safety is an area in which it is possible to identify distinct changes in approach and mentalities over short periods of time, and thus it can make a particularly valuable contribution to our understanding of the development of business practice. Existing accounts examining occupational safety have tended to focus on political issues, analyzing state regulation of dangerous industries such as mining, manufacturing, and railroads.³ There is a danger in constructing the role of business in this process as a rather simplistic binary, opposing government action with economic and parliamentary or federal influence. In this paper, I aim to nuance such views, demonstrating that, although business could oppose external intervention, at times it went further and attempted to provide its own solutions to some of the perceived problems. In this way, it is possible to see that “safety” as a concept and practice was socially constructed. The paper further extends the place of occupational safety

Cooper-Harvey for their constructive comments and suggestions on this paper.

¹ Roger Cooter, “The Moment of the Accident: Culture, Militarism and Modernity in Late-Victorian Britain,” in *Accidents in History: Injuries, Fatalities and Social Relations*, ed. Roger Cooter and Bill Luckin (Atlanta, Ga., 1997), 112; Judith Green, “Accidents: The Remnants of a Modern Classificatory System,” in *Accidents in History*, ed. Cooter and Luckin, 69.

² For example, see Steven Usselman, *Regulating Railroad Innovation: Business, Technology, and Politics in America, 1840-1920* (Cambridge, U.K., 2002); Elisabeth Cawthorn, *Job Accidents and the Law in England's Early Railway Age: Origins of Employer Liability and Workmen's Compensation* (Lampeter, Wales, 1997); Mark Aldrich, *Safety First: Technology, Labor and Business in the Building of American Work Safety 1870-1939* (Baltimore, Md., 1997); Eric Tucker, *Administering Danger in the Workplace: The Law and Politics of Occupational Health and Safety Regulation in Ontario, 1850-1914* (Toronto, 1990); Arthur McIvor and Ronnie Johnston, “Reinvention or Renewal? The Coal Dust Problem in British Coal Mining before and after Nationalisation, c.1930-1975,” paper presented to the Business History Conference, Minneapolis, Minn., May 2005.

³ For example, see Graham K. Wilson, *The Politics of Safety and Health: Occupational Safety and Health in the United States and Britain* (Oxford, U.K., 1985); Peter Bartrip, “State Intervention in Mid-Nineteenth Century Britain: Fact or Fiction?” *Journal of British Studies* 23 (Autumn 1983): 63-83; Arthur McIvor, “State Intervention and Work Intensification: The Politics of Occupational Health and Safety in the British Cotton Industry, c.1880-1914,” in *Labour, Social Policy and the Welfare State*, ed. Ad Knotter, Bert Altena, and Dirk Damsma (Amsterdam, 1997), 125-39; Gerald Rhodes, *Inspectorates in British Government: Law Enforcement and Standards of Efficiency* (London, 1981); Bridget M. Hutter, *Regulation and Risk: Occupational Health and Safety on the Railways* (Oxford, U.K., 2001); Peter Bartrip and Paul Fenn, “Factory Fatalities and Regulation in Britain, 1878-1913,” *Explorations in Economic History* 25 (Jan. 1988): 60-74.

in business history by considering not only the production of understandings of “safety,” but also how particular understandings were communicated to a labor force within a corporate environment. This aspect has received little attention from historians or sociologists.⁴

I shall explore the role of occupational safety within business history by concentrating on the Great Western Railway (GWR). The approach to safety adopted by the company forms a particularly illuminating example, as the GWR was one of the largest institutions in early twentieth-century Britain. At the time, the railroad industry faced many organizational challenges: labor relations and the recognition of trade unions; declining profitability and increasing costs, with a concomitant lack of investment in infrastructure and stock; competition from motorized road transport; and the post-1919 restructuring of the industry under state direction. Employee safety was therefore only one issue with which the railroads had to contend. Yet, the railroads were remarkably proactive in this area; the GWR responded to the challenge and transformed its approach to occupational safety. Through analysis of that shift, and the reasons behind it, I will provide insight into the transfer of business practice among nations and some of the factors affecting the decision-making process in business.

Employment on the railroads was extremely dangerous for the manual grades: the factory staff and the operational staff, such as the footplate crew, those men working on the railroad lines, and brakemen.⁵ Comparatively, the danger that the clerical and managerial staff faced was negligible; consequently, the post-1913 “Safety First” campaign concentrated only upon the manual staff. I follow that distinction.

In examining how the GWR attempted to convey their safety messages between approximately 1900 and 1920, I argue that, with the introduction of the “Safety First” campaign in 1913, the GWR attempted to make their safety messages immediately “accessible” to the staff. The American origins of the campaign highlight the process

⁴ Although Mark Aldrich, Kurt Wetzel, and Dianne Bennett and William Graebner make brief mention of occupational safety education techniques, such references simply list the various media used to convey safety messages; detailed analysis of the ways in which the safety education was supposed to work is lacking. See Mark Aldrich, “Safety First Comes to the Railroads, 1910-1939,” *Railroad History* 166 (Spring 1992): 7-33; Aldrich, *Safety First*, 136-41, 199-202; Kurt Wetzel, “Railroad Management’s Response to Operating Employees Accidents, 1890-1913,” *Labor History* 21 (1980): 351-68; Dianne Bennett and William Graebner, “Safety First: Slogan and Symbol of the Industrial Safety Movement,” *Journal of the Illinois State Historical Society* 68 (June 1975): 243-56.

⁵ For example, in an impressive analysis, Ewan Knox has disaggregated Board of Trade statistics for numbers of employees killed and injured for selected manual grades. To take one grade, between 1908 and 1913, an average of 30 shunters were killed and 926 injured each year; this represents a fatality rate of 22 per 10,000 and an injury rate of 670 per 10,000; Ewan Knox, “Blood on the Tracks: Railway Employers and Safety in Late-Victorian and Edwardian Britain,” *Historical Studies in Industrial Relations* 12 (Autumn 2001): 6-7.

of cross-cultural transfer involved in the introduction of this system of safety to Britain. In examining the content of the “Safety First” campaign, I question the assumption that “Safety First” was a radical reinvention of occupational safety, not only on the railroads, but also within British business as a whole. While the methods of dissemination changed, the safety messages themselves remained unaltered. Thus, in repeating the pre-1913 messages through a reinvented technique, the GWR actually renewed occupational safety.⁶

Occupational Safety on British Railroads Prior to 1913

Before 1913, GWR management, in common with that of all British railroads, relied on very formal methods to communicate occupational safety messages. These methods consisted of the Rule Book, circulars discussing specific points (and usually reiterating the relevant rule), and supervision of the men at work.⁷ Although the available statistics on employee death and injury are highly problematic, they are at least indicative of the scale of the problem confronting the GWR and other railroad companies.⁸ Between 1900 and 1913, the annual average of railroad employees killed and injured was 485 and 20,737 respectively, with figures rising between these dates.⁹ The companies’ continued reliance on the Rule Book and circular to promote workplace safety seems to have had a limited effect in preventing accidents. An examination of the formality of these methods is productive.

As shown in Figure 1, the Rule Book was not designed to be attractive; it was compulsory. The reader was unlikely to read the solid mass of text except when compelled to do so. The tone of the text offered little encouragement, using official, legalistic language; it appeared to be a top-down lecture from the management to the worker.¹⁰ For example, according to Rule 273(d):

⁶ Mike Esbester, “‘Dead on the Point of Safety’: Employee Safety Education on the Great Western Railway, 1913-1939” (Ph.D. thesis in progress, Institute of Railway Studies and Transport History, University of York).

⁷ The use of the gender-specific “men” is deliberate; at this date, the railway did not employ women in the manual tasks under discussion. As a result of this, the “Safety First” campaign was (self-consciously or not) highly gendered, a theme that I shall explore in future work.

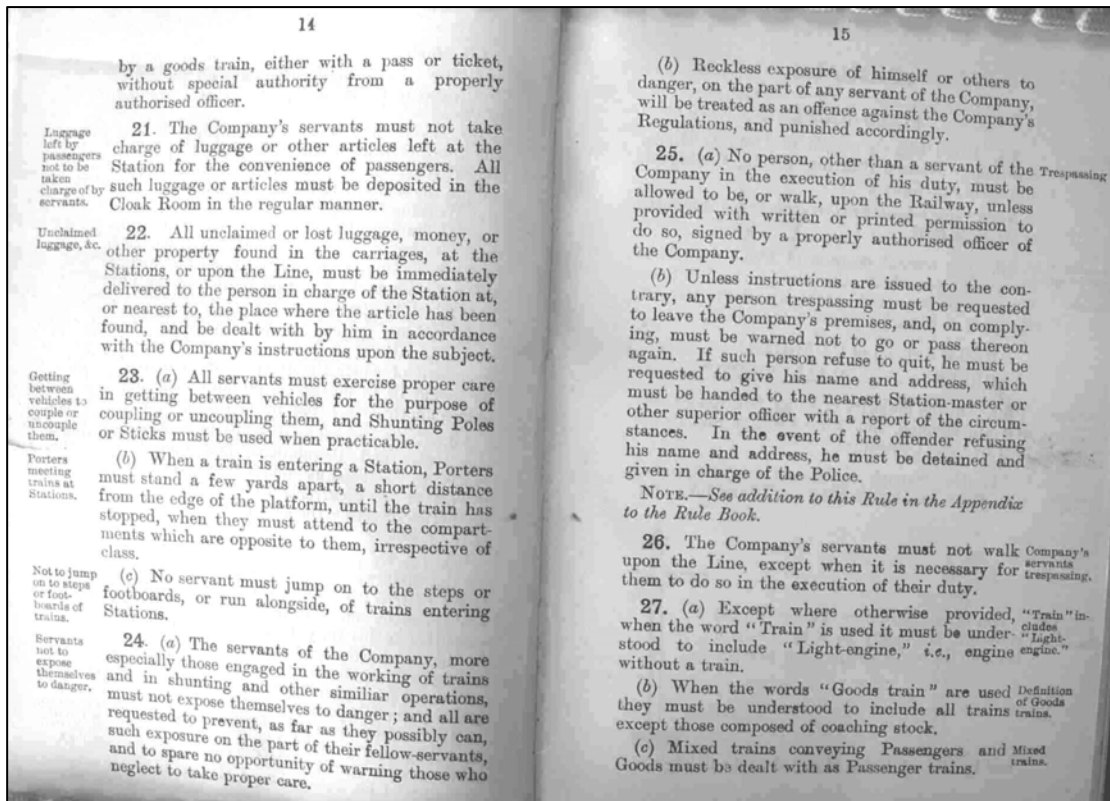
⁸ There is no guarantee that all injuries were reported; the increases caused by the tightening definition of “accident” in 1895 and 1906 indicate that prior to those dates some work-related injuries went unrecorded. See also the comments of Knox, which are applicable to the statistics used in this paper; Knox, “Blood on the Tracks,” 5-8.

⁹ Figures aggregated from *General Report to the Board of Trade upon the Accidents that have occurred on the Railways of the United Kingdom* for the years 1900-1913 inclusive. Although beyond the scope of my paper, possible reasons for the increases in casualties include the intensification of work and “speeding-up” and increases in traffic density on the railroad network.

¹⁰ Even the layout of the Rule Book echoed that of the statute book, with the abbreviated form of the rule in the margin, and the full explanation as the main body of the text. The perception of Rule Book and circular as legalistic was not confined to the workers; in 1915 management publicly recognized the

The men must . . . desist from work in cases of fog or falling snow when the Foreman, Ganger, or Leading Man considers that they would not have sufficient warning of the approach of a train, provided such discontinuance of work does not endanger the safety of the trains.¹¹

FIGURE 1
GWR 1905 Rule Book, pp. 14-15.



Source: Courtesy of the National Archives of the UK (PRO): ref. RAIL 1134/163.

There was no expectation that employees would engage with the Rule Book: it was a condition of employment that they were required to abide by.¹² However, such formality was dramatically altered in 1913.

difference of the new style of "Safety First": "We made straight, plain, homely talks on the subject [safety] a special feature of ['Safety First']. There was none of the Notice-is-hereby-given style about them." *Great Western Railway Magazine* [hereafter, *GWRM*] (June 1915), 152. Unless otherwise acknowledged, I viewed all sources in the National Railway Museum, England.

¹¹ The National Archives of the UK (TNA): Public Record Office (PRO) RAIL 1134/163, GWR Rule Book (Paddington, U.K., 1905), Rule 273(d), 154.

¹² "Engage" is a problematic term; however, it can be taken to imply some sort of a mental stimulation induced in the reading of the item.

This change was not a spontaneous reinvention of occupational safety, but rather was rooted in American developments.

The American Origins of “Modern” British Occupational Safety Education

In 1910, Ralph Richards initiated “Safety First” on the Chicago and North Western Railway, a movement that spread rapidly across the U.S. railroad system and ushered in a new safety culture. Transfer of “Safety First” was swift, both within the United States and across the Atlantic to Britain. The period from 1910 and 1912 was one of establishment and acceptance (at least by management) within the United States.¹³ Between 1913 and 1915, “Safety First” was established and accepted in Britain (again, at least by management).¹⁴

Proportionately, greater scholarly attention has been paid to the East-West transfer between Europe and the United States.¹⁵ There is less documentation of the British look toward North America in the late nineteenth and early twentieth centuries.¹⁶ The British railroad industry made substantial use of American innovations at this time; Robert Irving, David Howell, and Geoffrey Channon have explored the

¹³ For example, three years after its introduction in 1910, “Safety First” had spread over approximately 70% of U.S. railroad mileage. TNA: PRO, RAIL 1005/426, “R.C. Richards and the Safety First Movement,” in *Chicago and North Western Railway Traffic Department Monthly Bulletin 2* (Nov. 1913): 16.

¹⁴ Although it does not appear that Britain produced similar statistics, we see the acceptance of this type of safety education by other railroad companies in the uptake of the safety movement. The GWR made its safety literature freely available to other companies. Those reported as having adopted the format and style of “Safety First” included the London and South Western, Great North of Scotland, Midland and Great North Joint, Wirral, Rhymney, Cambrian, Cardiff, and Isle of Wight Central Railways. See *GWRM* (June 1915), 152-53. Other companies known to have produced “Safety First” material at this time include the North Eastern Railway and the Hull and Barnsley Railway.

¹⁵ See for example Daniel Rodgers, *Atlantic Crossings: Social Politics in a Progressive Age* (Cambridge, Mass., 1998); James Kloppenberg, *Uncertain Victory: Social Democracy and Progressivism in European and American Thought, 1870-1920* (New York, 1986).

¹⁶ Brief mention is made in Albert Kenwood and Alan Lougheed, *The Growth of the International Economy, 1820-2000* (1971; London, 1999), 130; David Jeremy and Darwin Stapleton, “Transfers between Culturally-Related Nations: The Movement of Textile and Railroad Technologies between Britain and the United States, 1780-1840,” in *International Technology Transfer. Europe, Japan and the USA, 1700-1914*, ed. David Jeremy (Aldershot, U.K., 1991), 39, 45; Jonathan Zeitlin, “Introduction,” in *Americanization and Its Limits: Reworking US Technology and Management in Post-War Europe and Japan*, ed. Jonathan Zeitlin and Gary Herringel (Oxford, U.K., 2000), 1-2; Jonathan Zeitlin, “Americanizing British Engineering? Strategic Debate, Selective Adaptation, and Hybrid Innovation in Post-War Reconstruction, 1945-1960,” in *Americanization and its Limits*, ed. Zeitlin and Herringel, 126, 180.

transfer of American techniques and technology to Britain.¹⁷ Although this pre-1913 transfer did not include safety, the precedent of information flow was established, and it prepared the way for the diffusion of American safety culture. The case of railroad and industrial safety education is a clear demonstration of the transfer of business practice from the United States to Europe.¹⁸

The rapid spread of the “Safety First” movement was a product of several factors. The cultural similarities between Britain and America facilitated exchange. David Jeremy and Darwin Stapleton have commented that transfer was “relatively quick and effective, presumably because they were closely related culturally shared language, legal and economic systems; and they enjoyed a common technical heritage.”¹⁹ Various channels of transmission existed between the nations, including first-hand observation (through research visits and personnel exchange), publication (in technical journals and the like), and direct exchange of information (by request).²⁰

The GWR certainly used these transmission channels when introducing the “Safety First” campaign to British railroads. Technical journals and books were the initial source of information for the GWR. A memorandum of March 1913 suggesting that the GWR imitate the American “Safety First” campaign referred to the *Illinois Central Railroad Magazine* and George Bradshaw’s 1912 book, *Prevention of Railroad Accidents*.²¹ By 1910, the American journal the *Railway Age Gazette* was published every Friday in New York, Chicago, Cleveland, and—significantly—London. It contained articles and material relating to “Safety First” in America.²² There were similar reports on American

¹⁷ Robert J. Irving, *The North Eastern Railway Company, 1870-1914* (Leicester, U.K., 1976), esp. 211-27; David Howell, *Respectable Radicals: Studies in the Politics of Railway Trade Unionism* (Aldershot, U.K., 1999), esp. 48, 71-76; Geoffrey Channon, *Railways in Britain and the United States, 1830-1940: Studies in Economic and Business History* (Aldershot, U.K., 2001), esp. 267-78.

¹⁸ This is not to ignore the subsequent re-export of the GWR’s Anglicized version of “Safety First” to North America (see note 26).

¹⁹ Jeremy and Stapleton, “Transfers between Culturally-Related Nations,” 31; see also Kenwood and Loughheed, *International Economy*, 128.

²⁰ For example, see David Jeremy, “Introduction: Some of the Larger Issues posed by Technology Transfer,” in *International Technology Transfer*, ed. Jeremy, 1; David Jeremy, “Introduction: New and Old Problems in the Transfer of Technology,” in *The Transfer of International Technology: Europe, Japan and the USA in the Twentieth Century*, ed. David Jeremy (Aldershot, U.K., 1992), 3; Jennifer Tann, “Diffusion of Management Thought and Practice, 1880-1970,” in *The Transfer of International Technology*, ed. Jeremy, 203.

²¹ TNA: PRO, RAIL 1005/426, “Prevention of Accidents,” 1 March 1913; George Bradshaw, *Prevention of Railroad Accidents* (New York, 1912).

²² The first reference to the fledgling campaign came in the 1 April 1910 issue; subsequent references proliferated with the extension of the campaign; see *Railway Age Gazette*, 1 April 1910, p. 905. It was observed in one British

safety practice in British-based periodicals.²³ The library of the London School of Economics housed American texts on safety.²⁴ Evidently, there was widespread and rapid diffusion of information on the “Safety First” movement, easily accessible in Britain.

In addition, the Great Western Railway requested information on “Safety First” directly. Two letters from American railroads, written in response to GWR inquiries, have survived with accompanying material from the “Safety First” campaign in North America, documenting the free exchange of information.²⁵ The American “Safety First” campaign was incontestably the initial basis for the British safety movement. We see further evidence in the techniques used on both sides of the Atlantic. The similarities in general railroad culture ensured that it was possible to use the same methods of disseminating safety messages. Articles in staff magazines, books, talks, competitions, and posters were all in use on both continents. American railroad safety culture found its way to Britain through processes of diffusion and through active propagation by the GWR.²⁶

1913 and Beyond: “Safety First” in Britain

After 1913, then, the American-style “Safety First” campaign seemed to reinvent safety education in Britain. The campaign was a huge contrast to the formality of the Rule Book. It used techniques more akin to journalism in order to convey its message: in particular in articles

railroad company magazine that “The familiar phrase [Safety First] ‘leaps to the eye’ from almost every page of every American railway periodical.”

North Eastern Railway Magazine [hereafter, *NERM*] (May 1914), 109.

²³ For example, two weeks after a feature in the 1 April 1910 *Railway Age Gazette*, the British-based *Railway Gazette* reprinted verbatim a report on “Safety First;” see *Railway Gazette* (15 April 1910), 433. See also: *NERM* (April 1913), 98; *ibid.* (Nov. 1914), 287; *Great Central Railway Journal* [hereafter, *GCRJ*] (May 1914), 252; *GCRJ* (Dec. 1914), 178; *Great Eastern Railway Magazine* (Dec. 1917), 264.

²⁴ The booklets bear their original accession numbers, indicating that the library added them when published. LSE HE1 (73) D20, Ralph Richards, “Prevention of Accidents,” May 1911 [original number: p17459]; LSE HE1 (73) B6, Ralph Richards, “What the Safety Committees of the Chicago and North Western Railway have done for the Conservation of Men,” 1912 [original number: p17460].

²⁵ The GWR file entitled “‘Safety First’ movement,” now held in the National Archives, contains fifteen items, of which eleven relate to North American railroads. These include two letters from American companies, written in response to Great Western Railway inquiries. TNA: PRO, RAIL 1005/426, “‘Safety First’ Movement,” various items, 1913-1916.

²⁶ Note that there were differences between the American and British versions of “Safety First” from as early as March 1914 that grew increasingly significant over time. I have explored this aspect in the paper from which this section is drawn: “The Transfer of American Railway Safety Culture to Britain, c.1910-1930: ‘Save us from American Railroad Methods,’” paper presented to the International Association for the History of Transport, Traffic and Mobility annual conference, Detroit, Mich., Nov. 2004.

published in the staff journal, the *Great Western Railway Magazine*.²⁷ Even the use of the *Magazine* was significant, as it attempted to make the safety messages attractive to the employees; this was a fundamental shift in prevailing business practices. In comparison with the formality of the Rule Book, the articles were revolutionary. The GWR actively portrayed itself as reinventing safety: “We made straight, plain, homely talks on the subject a special feature of [‘Safety First’]. There was none of the Notice-is-hereby-given style about them.”²⁸ These were articles designed with the employee in mind, demonstrating a new approach to safety.²⁹

Promotion of interest and accessibility was through the use of the visual, a recognizably modern technique. In terms of immediate impact, it is informative to compare the Rule Book (Figure 1) with some sample pages from the GWR’s safety campaign (Figures 2 and 3). It is evident which is the more striking and attractive; the modern “Safety First” offered a stark contrast with the old form of safety information.

Figures 2 and 3 demonstrate the prominence of photographs within the campaign; their use resembled what we know in the twenty-first century as “photo-journalism”: the communication of ideas through photography. This was of enormous significance: for the first time a business attempted to make safety messages immediately accessible and comprehensible. A common technique used two images, one illustrating the “incorrect” method of working, the other illustrating the “correct” method. Figure 3 illustrates this binary; the central photograph is atypical in that it depicted the consequences of “incorrect” working.

Among the many techniques used to focus attention on important points found in the text of the campaign articles were the use of capitalization or italics to stress certain points (Figure 4). In Figure 5, the print was reoriented. In doing so, it displayed both a relevance to the article—this was the viewpoint of the man who was “lying injured on the ground”—and the active involvement of the reader, who would have had to turn the *Magazine* to read the text, thereby assuming the position of the injured man.³⁰ Such visual emphases all attempted to reinforce the ideas found in the articles; the intention was to force workers to notice the safety messages. Although the “new journalism” of the popular press used such techniques in the 1890s, their

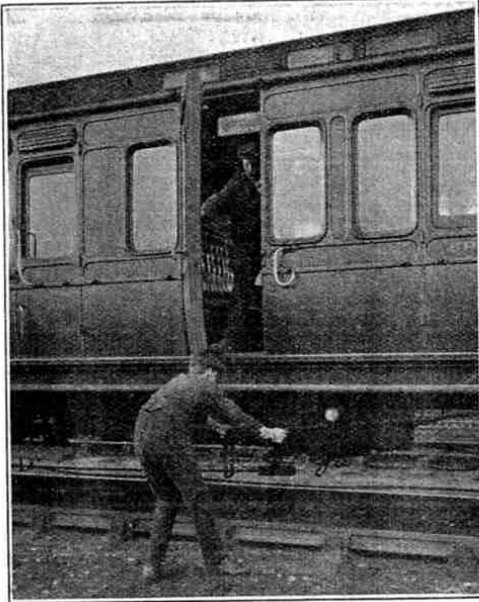
²⁷ The means of communication will have had a significant impact upon the effectiveness (or potential effectiveness) of the safety message; for further consideration of this factor, see Mike Esbester, “Consumption Habits and the Production of Workplace Safety: The role of the *Great Western Railway Magazine*, c.1913-1930,” paper presented to the Social History Society annual conference, Dublin, Ireland, Jan. 2005.

²⁸ *GWRM* (June 1915), 152.

²⁹ Or, indeed, to communication within business.

³⁰ *GWRM* (Feb. 1914), 35.

FIGURE 2



A Picture which speaks for itself.



The Man inside the Carriage should look out before opening the door.

wrong place at the right moment. The accidents shown in these pictures really happened.

Here's another case that shows the sort of luck some fellows get. A ganger at Washford wanted to measure a bolt in a pair of points. It would only take him a few seconds, and he didn't think it worth while to tell the signalman. But the very moment he put his hand to the bolt, the signalman happened to turn the points. His finger was caught between the switch tongue and stock-rail and badly crushed. What's the moral? Isn't it this? Don't trust to luck. Don't take chances —be they ever so small. Make SURE of SAFETY.

* * *
We've wandered from the point. 'Twas the New Year we were talking about. Let's return to our muttons. Give "Safety First" a look-in with your

resolutions. Start right away at taking no more risks. Look the thing in the face. Be fair to yourself. Be fair to the men who work with you. Go one better. See that they are fair to you. Don't let them play ducks and drakes with your safety.

* * * * *
We want your help in this movement. Talk

about it. Praise it. Blame it. Criticise it. Laugh at it. Ridicule it. Do anything you like with it. It'll all help to keep it fresh in fellows' minds. That's our aim. And we've enough confidence in the common sense of the men to know that whatever may be said about "Safety First," they'll see that it's for their good. The more they hear about it the more they're likely to remember it at the moment they most need it.

1914

Motto for the Year ;
Daily Resolve ;
Hourly Endeavour ;

SAFETY FIRST.

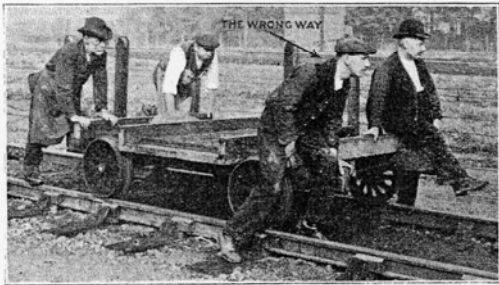
FIGURE 3

The "Safety First" Movement

It's no use jacketing a man who has injured himself. His suffering is enough of a penalty for him. And it's wasting breath to tell him what he ought not to have done. He knows it. It might

waste-water pipe. It's up to the loco. men to be careful about this hot water business.

* * *
An ounce of care on the job is worth a ton of regret when you're crippled.
* * *



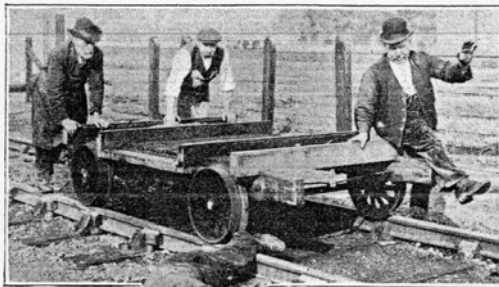
Never get on a moving trolley at the front.

There's another bit of our advice that wants repeating. Don't use the shunting pole as a brake stick. It's against the rules, besides being risky. A Cheltenham man got injured in attempting this about a month after we pointed out its danger.

* * *
Read your Rule Book. The men who compiled it were thinking of your safety.
* * *

have been his own fault—he might even have been playing the fool. Never mind. We give him sympathy and a helping hand. Don't pile on the agony with advice. He'll become a "Safety First" man of his own account. But we can profit by his experience. Don't let us wait for a like injury to bring home to us where the danger is. It's a pretty stiff job, though, to make some men careful. They want an awful lot of telling. Advice goes in at one ear and out of the other, and they only begin to see the force of it when the ambulance men are busy with them. That's not a dig at the ambulance men. Their movement's one of the best. There's a better one, though. That's the "Safety" movement. They relieve suffering, but we go one better, and prevent it. All honour to them! But we'd like to do them out of every job we could all the same. That's what we're out for. We'd stand a better chance of success if some of the fellows didn't forget our advice as fast as we give it. Read on, and you'll see that that's the trouble we're up against.

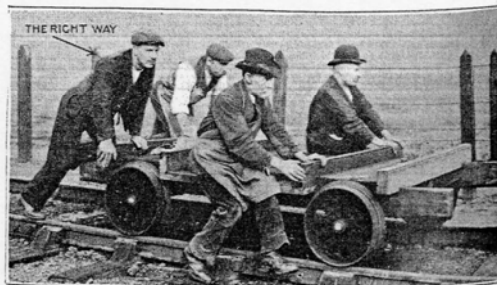
Now for some tips to the platelayers. Don't jump on to the front of a moving trolley. Always count on the possibility of slipping. Don't jump on at the side either. It's nearly as dangerous as at the front. The only difference is that you may get one wheel over you instead of two. Get on behind. If you slip then there won't be much harm done. It's better to fall behind the wheels than in front of them. Quite recently a man, in attempting to jump on at the side, fell and got his leg fractured by the wheel running over it. The man in the picture has obliged us by showing how it happened.



If you happened to slip—!!

* * *
About picks and shovels. When you're swinging them keep clear of your mates. Don't stand too close together. Spread out a bit. And when another fellow's busy with a pick or a shovel give him a wide berth if you have to pass him. He may not see you coming, and give you a nasty cut. Don't let him have the chance. Keep clear. Some fellows have a long reach. Don't judge too finely the length of their arms. Give them an extra foot or two, and be on the safe side.


* * *
A First-aid'er's treatment came in very handy at Birkenhead the other day. But it wouldn't have been wanted if the advice we gave a couple of months ago had been followed. An engineman, standing by his engine, got both his legs badly scalded through the fireman turning on the injector and sending out hot water and steam from the



Always get on at the back.

Source: *Great Western Railway Magazine* (Nov. 1913), 356; National Railway Museum, England.

FIGURE 4

<p>day quite a number of Great Western men meet with injuries that the "IS-IT-SAFE?" precaution would avoid? It's a fact. We want to drive this home to you. Making allowance for those who do not see these articles, it comes to this: <i>At the lowest estimate, more than a hundred men who to-day are reading this, as you are, will be injured, and one or two killed, before the end of the present month.</i> Next month we shall be telling you how the "IS-IT-SAFE?" plan would have saved them. Will you run risk of being amongst them, or will you cultivate the "IS-IT-SAFE?" habit?</p> <p style="text-align: center;">* * * *</p>	
	2 of

Source: *Great Western Railway Magazine* (March 1914), 70, National Railway Museum, England.

FIGURE 5

* * * *

Walking in the Up direction on the sleepers of the Up loop line at Bradford-on-Avon an Engineering department man got overtaken by a train. The engine knocked him down. 'Twas a mercy he wasn't killed. Everybody knows the peril of walking on the line is that a train may come up from behind. The other road—where you'd be facing an oncoming train—is bad enough. 'Tis best to keep off even that if you can. Guard against danger before it's on you. When you're lying injured on the ground it's too late to ask yourself, — — — — —

* * * *

Source: *Great Western Railway Magazine* (Feb. 1914), 35, National Railway Museum, England.

application to safety education marked the start of the modern era of occupational information provision.³¹

Supplementing the visual emphasis was the writing tone. The "Safety First" articles were extremely informal—something previously unknown in official communication. Epitomizing this was the December 1913 article, which opened:

Human lives are cheap. Dirt cheap. *Men risk them for nothing.* They sell them like old corks. . . . There's no 'gammon' about this. . . . You've just got to overlook the

³¹ For more on the "new journalism," see Joel Wiener, ed., *Papers for the Millions: The New Journalism in Britain, 1850s to 1914* (London, 1988).

possibility of a slip . . . and you're done for before you can say 'Jack Robinson.'³²

The intention of the informality of the text was to echo a talk between people: a conversation, not a lecture as in the Rule Book.

FIGURE 6



Source: *Great Western Railway Magazine* (March 1925), 103, National Railway Museum, England.

Figure 6 depicts the “pocket token,” introduced in 1916. The men were supposed to keep it in their pockets at all times, among their loose change; it was the size of an old penny, about three centimeters across. Every time money was used, then, the token would be brought out and it “would attract your notice at divers times and in all sorts of circumstances . . . all this would tend . . . to cultivate the habit of readily recalling to mind the vital question [‘Is It Safe?’]”³³ Whether or not it did so is debatable, but the inventive technique of conveying the safety message is the important factor. What is clear is that this campaign appeared to signal a radical reinvention of occupational safety, from the formality of the Rule Book to the highly visual and highly informal “Safety First.” This was nothing short of a transformation in existing business practice.

Understanding 1913

This change begs the question: why 1913? What does the introduction of “Safety First” suggest about the motives behind the development of occupational safety in British business? There seems to have been virtually no public demand for improved railroad employee safety, although we must not discount the power that the public voice could have on industries. It is possible that the GWR grew increasingly

³² *GWRM* (Dec. 1913), 386.

³³ *Ibid.* (Sept. 1916), 209. This also addresses the extension of the Company into the employee’s life: the token was supposed to work off-duty as well as on-duty.

concerned with the mounting human cost of its operations, something that the campaign itself certainly emphasized. However, other factors were of greater importance in influencing the transformation of safety practices.

Although the surviving records make little reference to the economic cost of occupational death and injury, I suggest that finances played a significant part in informing the GWR's approach to safety. The "Safety First" campaign was a social solution to the safety problem. Technological solutions were also available, but they were extremely expensive; for example, an estimate by the railroad employer's association put the cost of installing automatic couplings at "several million" pounds.³⁴ By comparison, the cost of an educational campaign was negligible, yet the perception would be that the company was actively addressing the issue.³⁵

Through "Safety First," we can understand some of the decision-making processes that shaped business practice and see how employee safety on the railroads was a product of social considerations. The timing of the campaign's introduction highlights the complexity of the decision-making process and the limits of company autonomy. Pressures external to the GWR played an important role in bringing about "Safety First." Businesses were sensitive to government intervention in their organization and in their labor process. This was particularly true of the railroads, which repeatedly claimed that interference in matters of discipline would erode safety standards.³⁶ Trades union pressure on employee safety issues increased in 1911 and 1912, and included calls for the compulsory introduction of (expensive) automatic couplings. Throughout 1913, trades union agitation called for the appointment of a Royal Commission to investigate the safety of railroad employees. The state was not willing to concede a Royal Commission, but instead placated the unions with a lesser Departmental Committee on the subject, agreed to in February 1914.

³⁴ The figures were produced by the Railway Companies' Association in 1899 and cited in Knox, "Blood on the Tracks," 16. The Associated Society of Locomotive Engineers and Firemen (ASLEF) opined in their monthly journal in 1921, "in all . . . cases of accidents occurring at the present time, the incidence of cost, rather than the value of human life, is the first consideration." See *Locomotive Journal* (July 1921), 258. The financial aspect continued to play a determining role in the various companies' considerations of safety well after 1920; the Unions continued complaining about the lack of automatic couplings into the 1950s.

³⁵ Although I have been unable to locate any records of the costs involved, I believe that the expense may simply have been included in the "normal" production costs of the *Great Western Railway Magazine*.

³⁶ One of the highest-ranking company officials, Frank Potter, as chief assistant to the general manager, in 1909 publicly stated of "Rules affecting safety" that "the tendency of recent railway legislation, more particularly as affecting the staff of railways, has been in a direction which has . . . actually had the effect of weakening discipline." See Frank Potter, "The Government in Relation to the Railways of the Country," GWR (London) Lecture and Debating Society, 11 Feb. 1909.

The railroad companies were concerned that what they termed state “interference” would increase and that the state would determine how work should be carried out on the railroads. It is no coincidence, then, that the GWR introduced its safety campaign in *August* 1913. Although at this time the state had yet to declare its interest, it was possible for the companies to foresee the appointment of some sort of investigative committee. The threatened state investigation thus seems to have played at least some part in determining the timing of the introduction of the “Safety First” campaign in Britain. The company could demonstrate, when necessary, that it was voluntarily attempting to improve employee safety. In this context, it is clear why the campaign needed to look and feel different from previous attempts to influence employee safety. Thus, the GWR did not simply attempt to block external intervention; rather, it provided an alternative locus for action, retaining some degree of control for the company. The same process has been observed by Arthur McIvor and Ronnie Johnston in the nationalized British coal industry, in relation to occupational health: “The National Coal Board . . . fully realised that it could only stave off the implementation of broader national regulations for dust control if it could show that it had the dust problem under control.”³⁷

The GWR claimed that “Safety First” addressed the needs of its employees. Yet it was using the campaign to address constituencies beyond the employees: the trade unions and the state. In such negotiations it is possible to see how “safety” was socially constructed, a product of power relationships among union, state, and business.

The First World War intervened and the Departmental Committee was never reconvened. British business faced severe challenges in the postwar period. The apparent decline in British economic performance, in comparison with the United States and European countries, featured prominently in national debate. With reference to the railroads, the postwar years saw enormous structural change, with a state-imposed reorganization of the entire industry. In light of such immediate and fundamental concerns, occupational safety was relegated to lesser prominence by both the state and the trade unions. Consequently, the well-established “Safety First” methodology of occupational safety education went uncontested. This left control of safety messages firmly in the hands of business management.³⁸ The entire railroad industry and other business concerns rapidly adopted the model; by 1918, a “British Industrial Safety First Association” was established. The managerial control of occupational safety was reflected in the ideology underwriting “Safety First.”

³⁷ McIvor and Johnston, “Reinvention and Renewal,” 18.

³⁸ McIvor and Johnston have observed a similar situation. Methods instituted before nationalization in the British mining industry were taken as “natural” and continued in the post-nationalization era. Options and patterns of thought developed within the pre-established channels, which greatly restricted the available choices. This was not quite so deliberate as the railroad companies’ use of “Safety First,” but the parallels are interesting; see McIvor and Johnston, “Reinvention and Renewal,” 9.

Renewing the Safety Message: Responsibility

Having examined the techniques that the Great Western Railway used to impart its safety messages, we now turn to the content of those messages. Rather than totally reinventing occupational safety, the “Safety First” campaign repeated existing safety conceptions, in effect renewing occupational safety. A large number of messages were present in both styles of safety literature, including claims to authority, legitimacy, and knowledge, and ideas of co-operation, “duty,” and paternalism. On paternalism, it is important to note that “Safety First” was presented as a further aspect of “welfare capitalism,” linked to the provision of other “benefits” by the companies. We will concentrate on one component of the campaign messages: responsibility.

The belief that workers were responsible for their own safety was well established among the managerial grades by the 1870s.³⁹ Managers came to see the provision of the Rule Book as their sum duty of care toward employees; if the rules were followed, the worker would remain safe. According to circular no. 1,769, issued in March 1898, the directors of the GWR were “satisfied that much more can be done [to reduce risks] . . . by the exercise of greater care and by a more strict observance of those Regulations which are intended to prevent accidents to the staff.”⁴⁰ This understanding created what Ewan Knox has called “a culture of blame towards the workforce.” In the management view, accidents resulted from carelessness and a neglect of duty.⁴¹ The preamble to a circular of July 1905 stated “Several accidents . . . have recently happened to members of the staff having been clearly caused by a neglect of those Rules and Regulations of the Company which have been framed in the interests of safety.”⁴² Within this statement, there was an underlying assumption that the provision of the means of safety—the rules and regulations—was the company’s responsibility. Beyond this, the act of safety—the observance of the rules and regulations—was the responsibility of the individual. In providing the rules, management perceived itself as having discharged its duty to the staff.

Of the period before 1910, Knox notes that the figure of the “careless worker” was “a central plank in the railroad companies’ strategy for avoiding responsibility for the safety of the workforce.”⁴³ Discipline was central to the managerial interpretation of safety as individual

³⁹ In 1875 George Findlay, chief traffic manager of the London and North Western Railway, stated that “knowing that self-preservation ought to influence a man in the performance of his duty, I do not think that we [the company] can do much more than point out the desirability to the men of avoiding danger.” See Royal Commission on Railway Accidents, *Minutes of Evidence*, C.1637-II, *Parliamentary Papers* (1877) 48, Q. 31.027.

⁴⁰ TNA PRO RAIL 253/319, p. 310, GWR Circular 1,769, “Accidents to Company’s Servants,” March 1898, p. 2.

⁴¹ Knox, “Blood on the Tracks,” 22-25.

⁴² TNA PRO RAIL 253/319, p. 461, GWR Circular 2,016, “Accidents to Company’s Servants,” July 1905, p. 1.

⁴³ Knox, “Blood on the Tracks,” 23.

responsibility. Rule 24(a) of the 1905 Rule Book stated, “The servants of the Company . . . must not expose themselves to danger.”⁴⁴ This rule covered every contingency and ensured that potentially any accident could be found to be the fault of the employee. Company accident investigations were conducted “to secure that any disregard of Rules or Regulations which may have contributed to the mishap, shall be brought to light and suitably dealt with.”⁴⁵ It was therefore incumbent upon workers to protect themselves while at work. These themes were repeated in the “Safety First” campaign after 1913, a fact that undermines the apparent total reinvention of occupational safety.⁴⁶ Although the techniques were radically altered, the company’s conception of safety as the responsibility of the worker was consistent.

From the outset, “Safety First” attempted to define occupational injuries as “personal accidents”—with the attendant implication of the individual employee’s responsibility. The “blame culture” was not confined to the railroads. Attributing blame to the victim was certainly known in the 1810s.⁴⁷ Carson has identified the “displacement of responsibility onto servants” as a feature of the conventionalization of the violation of safety laws in factories.⁴⁸ Similarly, in reference to the cotton industry, McIvor records “There existed a long tradition of blaming the victim—of ascribing responsibility for health and safety at work to the individual worker concerned.”⁴⁹ Within this context, it is therefore unsurprising that the railroads also adopted this convenient and established mode to evade potentially costly responsibility.⁵⁰ The first article in the campaign, in August 1913, claimed “many a man in

⁴⁴ TNA PRO RAIL 1134/163, GWR Rule Book (Paddington, U.K., 1905), Rule 24(a), p. 14.

⁴⁵ TNA PRO RAIL 253/319, p. 361, GWR Circular 1,822, “Accidents to Company’s Servants,” March 1900.

⁴⁶ This is not to suggest that “Safety First” replaced the rule book; rule books continued beyond 1913, and indeed took precedence over “Safety First.” As the analysis demonstrates, “Safety First” could be considered simply a new way of conveying the old messages found in the rule book. The rules themselves underwent relatively little alteration before the Second World War: a 1933 Rule Book is almost indistinguishable from a 1913 one.

⁴⁷ Roger Cooter and Bill Luckin, “Accidents in History: An Introduction,” in *Accidents in History*, ed. Cooter and Luckin, 3.

⁴⁸ Wesley George Carson, “The Conventionalization of Early Factory Crime,” *International Journal for the Sociology of Law* 7 (1979): 53.

⁴⁹ McIvor, “State Intervention and Work Intervention,” 130; Richard Bedington, “The Growth and Awareness of Health and Safety at Work” (Ph.D. diss., University of Aston, 1983), 9, 288, 381.

⁵⁰ The idea of personal responsibility was seen in representations of health as well as safety, on the railroads and beyond. According to the *Great Western Railway Magazine*, “It is the duty of all to be healthy, and to do observe the laws of hygiene that he may contribute to the full measure of his individual well-being to the public good.” See *GWRM* (Dec. 1892), 24. Bedington, “The Growth and Awareness,” 381, sees this as giving the employer a further means with which to control the workers, legitimized by contemporaneous ideas of “self-help.”

usual and simple duties places his life and limb . . . in peril through sheer want of ordinary care.”⁵¹ This motif was echoed throughout the campaign. In March 1920 it was claimed that the “greatest problem is to find a way of getting you to be always mindful of the need for care and forethought.”⁵² The management author told the employees “We’re out to get you to help yourselves.”⁵³ This was to be achieved through “Safety First”; it was “up to our readers to put the advice into practice.”⁵⁴ As with the Rule Book and circulars, the provision of the “Safety First” campaign was the limit of the GWR’s responsibility; the responsibility for practice lay with the individual. In this, the supposedly reinvented campaign was based on the same premise of employee responsibility as the pre-1913 safety measures.

Nowhere was the message of individual responsibility more evident than in the “watchword” chosen to signify the ideals of the “Safety First” movement. The question “Is It Safe?” (seen on the 1916 pocket token, Figure 6) was the epitome of individual responsibility.⁵⁵ Employees were supposed to ask “Is It Safe?” before performing any duty. The company was not providing direct advice; it was very clearly the duty of the individual to judge the situation and respond. Accompanying the phrase “Is It Safe?” was the managerial belief that accidents were a consequence of needless risk-taking by employees. This was an understanding derived from the pre-existing conception that railroad work was safe as long as the correct procedure was followed. In 1916, it was argued that the employees “must contrive to give a thought to Safety before they heedlessly step foul of an avoidable risk or thoughtlessly set a danger-trap for themselves.”⁵⁶ Such rhetoric was self-reinforcing. It denied the value of technological solutions to accidents, implying that “Safety First” education would render mechanical safety devices unnecessary. By using a new format, “Safety First” renewed occupational safety education, but reinforced the message of personal responsibility.

As with the Rule Books before 1913, the management perceived “Safety First” as fulfilling their safety obligations toward the staff. The employees were told “We [the management] can’t do more than point out the ‘safety’ method. It’s up to you to adopt it.”⁵⁷ That “Safety First” did not signal a true shift in the managerial conception of responsibility is demonstrated in the use that was made of the Rule Book. “Safety First” was based on the Rule Book and therefore embodied the managerial conceptions of responsibility built into the rules. Rule 24(a), ordering the employees not to expose themselves to danger, was

⁵¹ *GWRM* (Aug. 1913), 256.

⁵² *Ibid.* (March 1920), 49.

⁵³ *Ibid.* (Feb. 1914), 36.

⁵⁴ *Ibid.* (June 1915), 152.

⁵⁵ This had significant implications for the power relationships between employee and employer, as it left control of the work environment in the hands of the worker; I explore this theme in depth in my Ph.D. dissertation.

⁵⁶ *GWRM* (Sept. 1916), 209.

⁵⁷ *Ibid.* (Oct. 1913), 321.

explicitly written into the campaign in 1913.⁵⁸ This was by no means an isolated example. The GWR management consistently presented safety as an individual rather than a corporate responsibility.

Conclusions

I have explored the place of occupational safety in business history, discussing cross-cultural transfer of ideas and practices, and some of the factors involved in the decision-making process in the early twentieth century. I have demonstrated that while the Americanized “Safety First” campaign might have introduced innovative techniques for conveying messages into British business practice, the content of the messages remained essentially unchanged. Such a combination of new and old was not confined to the railroad industry. McIvor and Johnston came to the same conclusion with regard to the British coal mining industry and employee health after 1946.⁵⁹ I have dealt with only a fraction of the material in terms of both the techniques and strategies used in the campaign and the messages contained within the GWR’s articulation of “Safety First.” I have largely considered the managerial perspective. This is not to deny the importance of the employees’ and trade unions’ responses to “Safety First”; rather, it is to recognize that appropriate attention to the complex, and at times contradictory, responses of those groups demands another article.

“Safety First” on the railroads did not signal reinvention, but neither did it demonstrate simple repetition. By combining existing content with new techniques, “Safety First” represented a renewal of occupational safety on the railroads of Britain. In many ways, this was the birth of modern occupational safety education. Today British businesses use videos and the Internet to reach employees, following the same ideals of “accessibility” promoted by the GWR over ninety years ago. Whether or not the same articulation of responsibility is contained within today’s employee safety education is debatable, but it is an area that demands serious attention if safety at work is to be improved.⁶⁰

⁵⁸ Ibid. (Aug. 1913), 256-57.

⁵⁹ McIvor and Johnston, “Reinvention or Renewal?” 35.

⁶⁰ Some scholars suggest that in 2005 businesses still place responsibility for occupational safety with the employee rather than the employer. For the British experience, see Theo Nichols, *The Sociology of Industrial Injury* (London, 1997); for the Canadian experience, Charles Reasons, Lois Ross, and Craig Paterson, *Assault on the Worker: Occupational Health and Safety in Canada* (Toronto, 1981).