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“Inscribed on the Body: Reading Industrial Disabilities in the Age of Kafka and the Wizard of Oz”

Carroll has a thing about Franz Kafka’s short stories—which is surprising given his generally sunny disposition (Carroll’s, not Kafka’s). In particular, for a period in the 1990s, he was mildly obsessed with a Kafka short story called “In the Penal Colony.” If you don’t know it: the plot turns on an anonymous explorer’s visit to a mysterious penal colony. During a tour, the commandant shows him a machine designed to engrave the names of prisoners’ transgressions into their skin.¹ Carroll encouraged his students to use Kafka’s gory little fable as a starting place for thinking about how technology has been used, often negatively, to mark the bodies of society’s least powerful members.

Eventually, Carroll managed to exorcise most of this particular enthusiasm by organizing a session on bodies and machines for the ICOHTEC meeting in Prague, Kafka’s home town. He pointed out that the work I was doing on risk was unavoidably about bodies—an insight that should have been obvious to me, but wasn’t at that point—and invited me to give a paper. I ended up not be able to go to Prague, but Carroll’s question about how technology (and the power relations that construct it) had literally and metaphorically been inscribed on industrialized bodies stuck with me, as did two corollary questions: how have those inscriptions been read by different observers and

¹Franz Kafka. "In the Penal Colony," *The Complete Stories* (New York: Schocken Books, 1995), 140-167. The story was originally published as “In der Strafkolonie” in 1919.

what have been the social consequences of those readings? Eventually, I hope to get a book about bodies and technology out of this seed of inspiration. In the meantime, here's a tiny down payment (or repayment).

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As far as I know there is no American equivalent to Kafka's "Penal Colony," at least for the same time period. America's most famous survivor of workplace dismemberment is a character in a children's story--the Tin Woodman in Frank L. Baum's 1898 classic *The Wonderful Wizard of Oz*. In the book (though not in the 1939 movie) the tin man tells Dorothy that he was once an ordinary person made of flesh and blood. His transformation began when the Wicked Witch of the West enchanted his ax so that it "slipped all at once and cut off my left leg." A clever tin smith replaced the leg with a metal prosthesis, but once back at work, the woodman had a further series of accidents, finally cleaving his own torso in two. Technological intervention made him occupationally functional again (except when it rained) but left him without a heart.²

Literary scholars disagree about Baum's intentions in including this grim litany of self-mutilation in a putative children's story.³ But many of Baum's contemporaries would have found the Tin Woodman's troubles familiar. The rapid adoption of heavy machinery in industry and transportation resulted in a rising tide of accidents. Each workday added to the toll of the cut, crushed, burned, and poisoned.⁴ While damage from industrial accidents could take on a multitude of forms, dismemberment was

² Michael Patrick Hearn, *The Annotated Wizard of Oz* (New York: Clarkson N. Potter, Inc., 1973) 138-140.

³ Henry M. Littlefield, "The Wizard of Oz: Parable on Populism," *American Quarterly* 16 (Spring 1964): 47-58; Hearn, p. 140.

⁴ For a more detailed discussion of causes of workplace accidents, see Mark Aldrich, *Safety First: Technology, Labor, and Business in the Building of American Work Safety* (Baltimore: Johns Hopkins University Press, 1997)79-91. Aldrich argues that "power and machines accounted for a disproportionate share of the most serious accidents." For instance in "textiles, three-fourths of severe accidents stemmed from the use of machines, and other machine-intensive industries yielded similar results." pp. 84-85.

perhaps the most familiar and obvious stigmata of the machine age. As it turns out, workers with amputations or other crippling traumas to hands, arms, feet, and legs also attracted disproportionate attention from reformers, legislators, and rehabilitators.⁵ They put this form of disability at the center of the two significant state-sponsored reforms--workmen's compensation insurance and the post-WW I rehabilitation movement--both of which redefined the meaning and consequences of surviving industrial accidents. At the peak of its historical moment, between around 1905 and the early 1930s, dismemberment sometimes seems to verge on becoming synonymous with permanent disability from industrial injury.

Dismemberment took on this status partly because it really was widespread.⁶ But reformers, legislators, and employers also focused on missing body parts because they were easier to "read" than the complicated mix of injury, occupational illnesses, and infectious disease that disabled other workers. The cause and nature of the injury was immediately obvious to even the most medically ignorant observers. Unlike a sore back or a persistent cough, this kind of injury did not lend itself to faking. An arm was either there or it wasn't. Because this kind of injury always resulted from a single workplace event, it limited questions about whether workers' lifestyle choices had contributed to their disabilities.

⁵ The loss of eyes or eyesight was often lumped in with dismembering injuries. I have mostly ignored it in this paper because blindness has its own peculiar (and better documented) history.

⁶It is impossible to know exactly how common it was, especially compared with other kinds of injuries because efforts to count cases began simultaneously with the process of making dismemberment a special case so these kinds of injuries were more likely to be counted. The best assessment of the available data from the period is I.M. Rubinow, *A Statistical Consideration of the Number of Men Crippled in War and Disabled in Industry* (New York: Red Cross Institute for Crippled and Disabled Men, 1918) . He estimated that about 28,000 workers had been dismembered annually in the five years previous to his study, Rubinow, *Statistical Consideration*, 15.

Dismemberment also held a special place in the cultural imagination of late-19th and early-20th century Americans. They identified it with what might be called the violence of the machine, as well as with wartime injuries to soldiers. Therefore, it fit neatly into discussions about the unacceptable toll new industrial technologies took on the human body and into longer-term debates about what society owed white male soldiers. It probably won't surprise you that although these kinds of injuries certainly happened to women and African-American men, these people were virtually invisible in discussions of dismemberment and probably had very limited access to the benefits that accrued from them.⁷

In 1907, when progressive reformer Crystal Eastman set out to compile evidence for the necessity of workmen's compensation laws, she collected the narratives of workers living with disabilities—the real life tin woodmen.⁸ Eastman's investigations offer some clues about how workers interpreted what had been inscribed on their own bodies. Strikingly, they seemed to take for granted that paid labor would take its toll in permanent injuries. This expectation rendered partially damaged body parts invisible or at least taken for granted. An older steel worker initially responded to her questions “I never got hurt any to speak of.” When pressed, he remembered that one accident had fractured his skull, another had taken part of a finger, and a third had crushed a foot.⁹ Railroaders were particularly noted for the legion of walking wounded among their

⁷ The statistics Rubinow used aren't broken down by sex or race. To get a sense of how common these injuries were among women, I looked at the massive Congressional study “Report on the Condition of Woman and Child Wage-Earners” *Senate Document No. 645, 61st Congress, 2nd Session* (1911) which counted accidents in industries like the metal trades, glass, and textiles in which one would expect to find these kinds of injuries. They found surprisingly few, mostly the loss of fingers. The report also seems to suggest that men were called in to do jobs like cleaning and setting up machinery that were particularly dangerous. I suspect these injuries were very common among African-American men but haven't figured out yet how to test that hypothesis.

⁸ Crystal Eastman, *Work Accidents and the Law* (New York: Survey Associates, 1910) 148.

⁹ *Ibid.*, 227.

number. Eastman was struck by the eagerness of men with “permanent injuries” to go back to work on the railroad. One man told her he’d gone home for a few weeks to “get used to his wooden leg” before seeking another railroad job.¹⁰

Eastman and her allies more or less got what they wanted—the rapid passage of workmen’s compensation laws. The bill was passed in 1911. Forty-two states had similar legislation by 1920.¹¹ From the beginning, everyone knew this system was a compromise. Benefits were initially very low, supposedly to prevent malingering, and limited in their duration.¹² To make the system manageable, lawmakers and administrators tried to create categories and systems of evaluation that described the degree to which a worker was disabled.¹³ In this context, the one-armed paper hanger was relatively easy to categorize compared to someone with lead poisoning or a bad back.

It is therefore not surprising that most early workmen’s compensation acts distinguished between dismemberment and everything else when setting out rules about permanent disability. As the statistician I.M. Rubinow explained, “dismemberments are recognize able easily and early, while the other cases of permanent disability are not so obvious.”¹⁴ If the statistics Rubinow collected are any indication, this meant that the

¹⁰ Ibid., 231. For more on railroad workers, see Walter Licht, *Working for the Railroad* and John Williams-Searle, “Cold Charity: Manhood, Brotherhood, and the Transformation of Disability, 1870-1900,” in Longmore and Umansky, *New Disability History*, 157-186.

¹¹ Aldrich, *Safety First*, 97.

¹² Aldrich, *Safety First*, 98; Henry H. Kessler, *The Crippled and Disabled: Rehabilitation of the Physically Handicapped in the United States* (New York: Columbia University Press, 1935) 104; Harold F. Webb, “Getting the Injured Man Back to Work,” *The Annals of the American Academy of Political and Social Science* CXXIII (January 1926): 214-216.

¹³The arbitrariness of this system was underlined by the way different states assigned very different percentages of disability for the same type of injury. For instance, the loss of an arm could result in a rating of between 21 and 78 percent disabled depending on what state one lived in. Kessler, *The Crippled and Disabled*, 108-9. The percentage was supposed to make up for the decline in wages under the assumption that a one-armed man would have access to less well-paying employment than a two-armed man.

¹⁴ Rubinow, “A Statistical Consideration,” 14.

dismembered were much more likely to successfully collect permanent disability than other workers with more complicated complaints.

On the other hand, missing body parts made it particularly difficult to find employment. Other kinds of partially disabled workers could and did hide their disabilities from prospective employers, sometimes even collecting benefits while they worked another job, but it was hard to hide a missing limb. A 1928 survey of 600 of the nation's largest employers found that 50 percent would not hire handicapped workers under any circumstances. Many noted that the "nature of the work not suited in their factories" by which they meant industrial machinery and processes had a built-in assumption that workers had two hands and two feet.¹⁵

Moreover, the presence of the workmen's compensation system also undermined the traditional custom of employer paternalism in which disabled workmen were given a given a sinecure, stereotypically as a watchman. Why should employers provide the disabled with a job when they were paying premiums for disability payments?

If dismemberment gained some workers a special place in the workmen's compensation system, it also contributed to their peculiar status in the emerging state-sponsored rehabilitation system. As World War I drew to a close, Congress passed a bill allotting 2 million dollars for the vocational rehabilitation of injured veterans. Sensing an opportunity, representatives of the American Association for Labor Legislation lobbied to

¹⁵The unfavorable provision was that if the worker was injured again and this time completely disabled, the employer would bear the full financial burden for compensation even if the first injured had been acquired in a different workplace (individual premiums were based on the amount of compensation paid out as an incentive for employers to make their workplaces safer). Kessler, *The Crippled and Disabled*, 23 citing Emil Frankel, "The Vocational Adjustment of Physically and Mentally Handicapped Children," *Special Report of the White House Conference on Child Health and Protection* (Washington, D.C.: U.S. Government Printing Office, 1928) 10-12.

have disabled workers included under the bill.¹⁶ This effort failed, but eventually a separate bill was passed providing matching funds to state bureaus for the rehabilitation of persons disabled in industry (and in some cases, everyday life).¹⁷ These state programs seem to have tried to aid all kinds of disabilities from broken backs to hearts weakened by rheumatic fever.¹⁸ But by now, you can probably guess who the vast majority of patients were. For instance, in Pennsylvania 70% of patients were being treated for loss of the use of a limb.¹⁹

What difference did all these efforts make in the lives of disabled workers? Partial salary replacement from workmen's compensation undoubtedly worked as intended in keeping some workers from falling into poverty until they could recover or find alternative employment. Rehabilitation programs and workmen's compensation insurance also provided some medical care and prostheses to people who could not otherwise been able to afford them. But, physical rehabilitation had mixed success. Doctors could occasionally work miracles, but most treatments were makeshift. For instance, one study found that only 10 percent of people supplied with artificial arms actually wore them.²⁰ There was also a widespread recognition that dismemberment caused psychological as well as physical and economic problems. Rehabilitators recognized that depression caused many people to drop out of rehabilitation programs but

¹⁶ John Mitchell, "Vocational Rehabilitation of Crippled Industrial Workers," pamphlet reprinted from *Fifth Biennial Conference of Catholic Charities, September 15-18, 1918*, 2-3.

¹⁷By 1932, 27,403 people were being served each year in these programs. Kessler, *The Crippled and Disabled*, 127.

¹⁸ Oregon State Accident Industrial Accident Commission, *Physical and Vocational Rehabilitation* (Salem, 1922) The Pennsylvania Program for the Reestablishment of Disabled Persons in Useful Employment, *Restoration of the Physically Handicapped* (Harrisburg: Commonwealth of Pennsylvania, 1934) 8.

¹⁹Of the 4, 425 registrants treated by the Pennsylvania Bureau in 1922, 3,132 had lost the use of either hands or limbs. 427 had been blinded in one or both eyes. The rest were lumped in the categories "general debility" and "miscellaneous". S.S. Riddle, "Rehabilitating the Worker When Accident Prevention Fails," *The Annals of the American Academy of Political and Social Science* CXXIII (January 1926): 223.

²⁰ *Ibid.*, 83.

were at a loss to do much about it.²¹ Because these programs were so focused on the capacity to work, they also seem to have given no attention at all to the effect of disability on the rest of workers' lives. Like the smith who put the tin woodman back together, they concentrated on arms and legs and left out the heart.

By the 1930s, the special place of the dismembered workers in public discourse and public welfare had begun to disappear. Workmen's compensation programs expanded to encompass more complex kinds of injuries. Rehabilitative medicine also slowly became more sophisticated. It is also likely that although this kind of injury has never disappeared, its frequency gradually declined thanks to the successes of the safety movement.²² Vehicle accidents are now the primary cause of permanent disability and spinal injuries the characteristic result. The person in the wheelchair has replaced the man with the empty sleeve in policy debates and our collective cultural imagination.

²¹ Ibid., 10

²² A study done by the Bureau of Labor Statistics in the 1990s, found an average of 11,000 "workplace amputations" annually, less than half the number I.M. Rubinow estimated in 1918. See Jeffery D. Brown, "Amputations: A Continuing Workplace Hazard," <http://www.bls.gov/opub/cwc./contents/sh20030114ar01p11.stm>.