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## Atlantic Cable

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Atlantic Cable  
JOHN M. PICKER



Safe & well expect good letter full of Hope

—CHARLES DICKENS TO W. H. WILLS,  
22 November 1867 (Dickens 487)

CHARLES DICKENS telegraphed the above message to W. H. Wills, his acting editor for *All the Year Round*, from Boston as he began his second American reading tour. Wills was what Dickens called his “factotum,” or all-purpose assistant, in his personal as well as professional life, and the acting editor knew that his boss was speaking, or signalling, in code. A surviving scrawl in a diary reveals that weeks before Dickens left on his transatlantic journey, he had indicated that he would cable one of two telegrams to Wills upon arrival: “all well” if conditions were such that it would be possible to have his mistress Ellen Ternan, whom he referred to in letters as “the patient,” sent inconspicuously to accompany him on the trip, or “safe & well” if they were not.<sup>1</sup> As the epigraph indicates, Dickens, by this time an international celebrity whose every move in the United States was tracked by the press, belatedly came to his senses, and, with Wills’s assistance—or it might be more accurate to say without it—Ellen Ternan remained in England.

Dickens’s brief flirtation with the telegraph for romantic purposes at this historical moment draws attention to the then-current technological development that allowed him to communicate with such speed about the fate of his mistress in the first place. Just a year earlier, in 1866, Cyrus Field and the crew of the *Great Eastern* finally completed the laying of the Atlantic cable connecting the Old World with the New. Telegraphy and telegraph cables were familiar facts of life, of course, as Victorians by then had witnessed about three decades of the accelerating growth of electric wires and poles across their landscape. But the cable across the ocean was a new phenomenon altogether, in scope, in cost, in effort, and as a spark for what might be called the Victorian material imagination, the endearing but often just weird mix of fantasy and propaganda that resulted from fetishizing products of industrialized commerce. Others have told the story, beginning in the 1840s, of the initial ideas for, Field’s financing of, and the failed attempts and ultimate successful laying of the Atlantic cable, and the trial and error behind the construction and powering of it. Here I focus instead on what arguably was the critical aspect of its material composition, its insulation, and begin to suggest how this approach can influence the ways we interpret representations of the cable and the transatlantic connection it engendered.



John Tenniel, “A Word to the Mermaids,” *Punch* 49 (1865): 47.

The core of the Atlantic cable featured two essential components that had constituted the basic elements of submarine telegraph cables since the first was successfully laid across the English Channel in 1850: a wire conductor of copper and an insulator, or “insulating envelope” as it was sometimes called, of gutta percha, the textile found to be best suited to protecting the conductivity of the copper and ensuring the efficacy of submarine telegraphy. Gutta percha, a Malaysian tree gum, had been introduced to England by William Montgomerie, a surgeon in the East India Company, who in 1843 sent specimens of it to the Society of Arts.<sup>2</sup> In Prussia in 1846, Werner Siemens discovered that gutta percha, which could be easily manipulated in hot water and hold that shape at colder temperatures, made an excellent insulator for underground telegraph wires. In 1847 he invented a machine to coat wires with it, and in 1848 he conducted trials of gutta percha-coated wires in underwater telegraphy.<sup>3</sup> In addition to widespread use in ear trumpets and speaking tubes, in surgery, and in dentistry (where even today it sometimes plays a role), gutta percha quickly became the Victorian telegraph insulator par excellence, not only for the failed first version of the Atlantic cable in 1857–58 but also for the later two versions in 1865–66. These three attempts alone consumed a total “insulating envelope” of over nine hundred tons of gutta percha.<sup>4</sup>

The Malay Archipelago was the only source for suitable gutta percha, and the enormous demand provoked unregulated tree removal, leading to what now would be recognized as an environmental disaster. Entire forests were decimated to make enough insulation for Victorian cables.<sup>5</sup> In the words of one

writer reflecting on the diminished supply in 1898, "As soon as the valuable properties of gutta percha had been recognised in Europe and a demand had been created for the article, the countries all around Singapore were searched with great avidity for Taban trees, and almost a craze for getah-collecting sprang up among the indigenous population. ... An immense number of trees of great size and age, probably hundreds of thousands, were ruthlessly destroyed during the first four or five years, and whole forests denuded of them, like those on Singapore" (Obach 12). Or, as Charles Bright, the electrical engineer who oversaw the laying of the cable, put it, "The felling of the trees has been carried out in such a ruthless manner that an adult specimen is now rarely seen, and in Sumatra, the gutta-seekers themselves cannot recognize either the flowers or the seeds by sight" (254). Bright wrote that "ruthless destruction by the natives" had "exhausted" Singapore's gutta resources and that, in order to maximize profit from the sale of other varieties by weight, "the noble but enterprising savage" was injecting "impurities" into them (256, 285). Bright insinuated that the environmental devastation and economic consequences were the fault of the colonized while neglecting to point out that it was the Westerners whose insatiable desire for technological "progress," after all, had led to such ruthless consumption of telegraphic insulation in the first place.<sup>6</sup>

Looked at from a broader perspective, the colonial economy literally insulated the objects of Victorian progress even as Victorians remained largely undeterred by, if not resigned to or even insulated from, the exploitative realities and unintended environmental consequences of this progress. This, in itself, should not come as a surprise, but it is curious to consider the ways in which depictions of the submerged electric cable came to be charged with distinctly Victorian kinds of tension, as Victorians sublimated their own perhaps unconscious awareness of the material and moral costs of progress into representations that, in the cases I will briefly discuss here, invoked the tensions of sex and marriage. What I only can begin to suggest in this necessarily abbreviated forum is that the tensions of the exotic, distant colonial, and environmental concerns that were woven into the very fabric of the cable surfaced in the more familiar telegraphic milieu of flirtatious communications and "wired love."<sup>7</sup> Popular journalism set the conventional tone with portrayals of the cable that appealed to Victorian notions of marital bliss. "The Atlantic Wedding-Ring," a poem by George Wilson published in *Blackwood's Edinburgh Magazine*, associated the "Fatherland" with "the Bridegroom," and "Daughter" America with the "willing Bride," while a writer for *Punch* commented that "the Sub-Atlantic wire is the wedding-ring which joins" America and England, and concluded by referencing the recently passed Divorce and Matrimonial Causes Act as well as the welding of the wires in the middle of the ocean during the first attempt: "May no divorce act ever separate those who're now united by the Sub-Atlantic splice!" (Wilson 458; *Punch* 73). The electric marriage was already on the rocks—the 1858 cable went on to fail within a month. *Punch* was

one of several magazines to publish cartoons over the years that portrayed the Atlantic cable, and submarine cables more generally, as connections between men and women (or sometimes between two women or two men) standing in for their respective nations ("John Bull" and "Jonathan," for example). But alongside these typically staid cartoons, there are others such as John Tenniel's "big cut" from an August 1865 issue. In what would appear to be a harmless fantasy scene, a Mr. Punch-like Neptune scolds frolicking mermaids to "get off o'that 'ere cable, can't yer—That's the way t'other one was wrecked!!!" The illustration's theme of tension—that is, the added tension that presumably will snap the strained cable—is reinforced by the odd sexual tension of the mermaids' remarkably exhibitionistic underwater gymnastics. The uncharted, mysterious ocean depths provide a perfect blank space for the artist to fill in and flesh out with both his imagination and, not entirely distinct from this, what we might call a cultural unconscious. Tenniel's "big cut" about the fear of a big break submerges and channels the unresolved tensions (colonial and environmental, to name two) of the cable saga into an example of what could pass for *Punch* pornography. The mermaids constitute the literal and figurative threat to the very marriage between nations that *Punch* had earlier welcomed.

We have already seen how the Atlantic cable put Dickens in mind not of his wife but of his own mermaid of sorts, his mistress, with a telegram sent in insulating code. By way of a brief coda, consider the opening of *The Portrait of a Lady* (1880–81), set about three years after Dickens sent his underwater message. In this work, Henry James offers his own perspective on those dynamics with a different marital study centred on Isabel Archer. Tellingly, she enters the novel as a character in someone else's text, a telegram sent from America to England by Mrs. Touchett, her aunt, and a woman herself involved in a difficult marriage: "Changed hotel, very bad, impudent clerk, address here. Taken sister's girl, died last year, go to Europe, two sisters, quite independent" (67). The oblique reference and confused syntax of the message, noted within the novel, leave ambiguous not only whose position is "quite independent" but even, with "died last year," Isabel's status as living and vital. So too does the novel, with the story of her disastrous marriage to Gilbert Osmond. In *The Portrait*, the Atlantic cable is no longer—if it ever was—a "great peace-maker," as one poet had put it, but in its own disjointed way conveys a distant portent of marital strife.<sup>8</sup> Isabel ultimately will be left disillusioned if not broken, deprived of a form of insulation that is scarce enough, her innocence.

## Notes

- 1 For a fuller explanation of the telegram and Dickens's code, see Tomalin, 179–81.
- 2 Information about gutta percha in this paragraph comes from Bright.
- 3 For more on Siemens's role in this discovery, see Otis, 132–33.
- 4 This figure is from the chart in Appendix 10 of Obach, 102.
- 5 I am indebted to Elaine Freedgood's revelatory work on Victorian thing theory for helping me to think through the literal and symbolic significance of the cable.

See her *The Ideas in Things: Fugitive Meaning in the Victorian Novel*, especially her superb discussion of mahogany, deforestation, and *Jane Eyre* (30–54).

- 6 As costs of gutta percha escalated, Europeans realized the need for the reforestation of guttifers and attempted limited cultivation of them in the 1880s. Bright writes that “it is to be sincerely hoped . . . that electrical industries may not suffer from scarcity of this almost indispensable substance” (259).
- 7 *Wired Love*, Ella Cheever Thayer’s 1880 novel about a budding romance between two telegraphers, has been much discussed in recent criticism about the relationship between telegraphy and literature, as in *Otis*, 147–62, as well as Stubbs, 99–103.
- 8 In 1851, R. H. Horne published “The Great Peace-Maker” in *Household Words* in the context of the then new Dover-Calais cable. The poem was republished in book form in 1872, with an introduction that argued for its applicability to the Atlantic cable as well.

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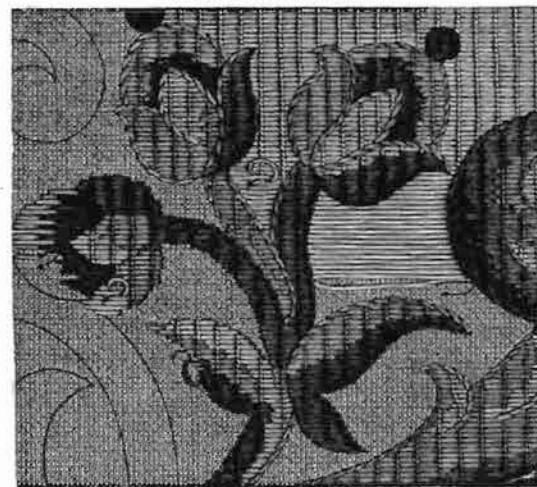
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Berlin Wool

TALIA SCHAFFER



JOHN RUSKIN and William Morris persuaded late Victorians to identify crafts as handmade objects deriving from a peasant tradition and involving high-quality materials and skilled construction. But these Arts and Crafts ideas do not help us understand the rampant popularity of certain types of handicraft that flourished from the 1840s through the 1870s: the shell-encrusted deal boxes, the watch-holders sewn with dried cucumber seeds, the work baskets made of cardboard with sky-blue satin scraps glued on, the wires dipped in

COMPLETE GUIDE TO THE WORK-TABLE.



*The Young Ladies' Journal Complete Guide to the Work-Table*.  
London: E. Harrison, 1885: 117 (plate 16).

congealed candle wax, the needlework portrait of the royal family’s spaniels on a cushion. What does it mean when an era’s dominant aesthetic paradigm prizes the machine-inflected, cheap, easily made, imitative, mass-produced, and modern?

In trying to recover the paradigm governing pre-Arts and Crafts handicrafts, I am undertaking a project that is somewhat similar to Elaine Freedgood’s in *The Ideas in Things*. In her deft readings of the overlooked metonyms of Victorian realism, Freedgood shows us how the fears associated with these objects underlie discourses we thought we knew. Similarly, the mid-Victorian domestic handicraft—an underread category of material life—carries the entire structure of economic and aesthetic thought that made it possible. Through parsing these artifacts, we can deduce the Victorians’ deeply alternative way of understanding art.

One of the most ubiquitous Victorian crafts was a form of needlework called Berlin woolwork, which used inexpensive thick, brightly coloured wools to fill in what was essentially a stitch-by-numbers kit. This craft became so popular because it was easy, quick, reliable, and adaptable. One could make a square of Berlin woolwork for virtually anything: chair backs, cushion covers, even slippers and bookmarks. Aurora Leigh describes the range and productivity of this form of handicraft: “Producing what? A pair of slippers, sir, / To put on when you’re weary—or a stool / To stumble over and vex you . . . ‘curse that stool!’ / Or else at best, a cushion . . .” (19).