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Origins of the Flyswatter

PETER SOPPELSA and AMY S. RODGERS

The flyswatter is a twentieth-century artifact. To create it as the recognizable, socially stable artifact and everyday object that it is today, two historical threads had to come together: a popular campaign against flies (inspired by the idiom of “swatting”) and a widely-accepted design for fly-killing devices. Braiding together these threads shows us the historical process through which the flyswatter became an everyday thing. The flyswatter is therefore a clear example of an “everyday” technology.¹ Familiar, mundane, routine: its use is “intuitive.” The artifact’s obviousness is only possible because the act of swatting, the long-handled device with a flat mesh head, and the desire to kill flies came together around 1900 and were gradually culturally normalized.

Our cover depicts the first purpose-made wire-mesh fly-killing device patented in the United States by Robert R. Montgomery, a little-known entrepreneur from Decatur, Illinois, on 9 January 1900 (fig. 1). He and his sons produced more than half a million models by 1902 and branded them the “King Fly Killer.” The next year, Montgomery sold his patent to John L. Bennett (1874–1966) of the United States Wire Mat Company, also in Decatur, which began mass-producing wire-mesh fly killers. Bennett’s company perfected its design through a series of patents between 1914 and 1939. Bennett is more remembered for patenting the beer can in 1937, though he held many more flyswatter patents. He was a shrewd entrepreneur in bringing metal-work products to a mass market.²

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1. David Arnold, *Everyday Technology*, 10–11; Timo Myllyntaus, “Prologue”; Joy Parr, *Sensing Changes*; Paul Josephson, *Fish Sticks, Sports Bras, and Aluminum Cans*; Robert Friedel, *Zipper*.

2. 1902 production figure in *Prairie Farmer* 177 (2005), FV-102. On Bennett, see:

FIG. 1 Robert Montgomery, Fly Killer patent drawing, 9 January 1900. (Source: Google patents.)

“John L. Bennett, Beer Can Pioneer”; “Who Made That (Fly Swatter)?” Reviews of the “King” in: “Stove and Hardware Dealers” (1900); “Price-Lists, Circulars, &c.”; “Stove and Hardware Dealers” (1902); “Recent Trade Publications”; “King Fly Killer”; “Hardware”; “The King Fly Killer”; and “The ‘King’ Fly Killer.” See ads in: *Hardware Dealers’ Magazine*, May 1906, 983; *Saturday Evening Post* 176, no. 2, 4 June 1904, 19; *Saturday Evening Post* 174, no. 10, 7 September 1901, 2; *The Delineator*, August 1903, 265; *Southern Hardware/The Tradesman* 46, 1 September 1901, 20. See also U.S. Patents: No. 640,790, 9 January 1900; No. 1,121,708, 22 December 1914; No. 1,179,345, 1 April 1916; No. 1,179,162, 11 April 1916; No. 1,218,619, 13 March 1917; No. 1,237,168, 14 August 1917; No. 1,279,985, 24 September 1918; No. 1,380,355, 7 June 1921; two from 1934 bore Bennett’s name: No. D92,573, 26 June 1934; and D92,877, 31 July 1934. See also: No. 2,159,728, 23 May 1939. J. F. Bigelow of Worcester, Massachusetts earlier patented a “wire brush,” which was later marketed as a fly killer, but not patented as such (U.S. patent No. 532,259, 8 January 1895); Edward E. Rice of New Durham, New Hampshire later patented a “fly-killer brush” (U.S. patent No. 648,794, 1 May 1900). Among purpose-made fly killers, wire mesh designs quickly won out over wire brushes.

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FIG. 2 Dr. Samuel Crumbine (1862–1954). (Source: Wikimedia commons.)

The flyswatter's normalization required not only stabilizing the artifact's design, but also normalizing "swat," "swatter," and "swatted" through the cultural work that constructed the flyswatter's meaning. For the term "swat" and the desire to kill flies to come forward, manufacturer John Bennett had to be matched by a crusader against flies as pests in human society. That crusader was Dr. Samuel Crumbine (1862–1954), a Kansas public health advocate who rose to national prominence around the same time that Bennett did (fig. 2).

Crumbine's public health methods seemed intense and controlling to critics who worried about social and economic disruption, but Crumbine believed that ill health would disrupt society even more. In 1902 The Kansas State Board of Health asked him to investigate a smallpox epidemic in the city of Pratt. The Board was so impressed that they adopted his new method of quarantine and made him their executive officer.³ Crumbine also regularly questioned advertisements for consumables, and his Board of Health analyzed many foods and drugs. He found foods full of broom straw and powdered bran, and patent medicines that contained mostly alcohol, which motivated the American Medical Association's years-long investigation of patent medicines. After suffering food poisoning, Crumbine sourced the transgressive oysters and then made doubly-landlocked Kansas the first to establish rules for shipping the shellfish. His environmental studies pushed the Kansas legislature to impose sanitary control over rivers, which inspired neighboring states to do the same. He also worked to ban public drinking cups and spitting on sidewalks. The latter campaign enlisted brick manufacturers to produce sidewalk bricks imprinted with

3. Robert Lewis Taylor, "Profiles: Swat the Fly!—II," 28.

the phrase “don’t spit on the sidewalk.”⁴ His contributions are still celebrated today through the annual Crumbine Award given in the United States to “local environmental health jurisdictions that demonstrate unsurpassed achievement” whose practices can be adopted by other communities. The Award committee seeks to “encourage innovative programs and methods” to solve local food-borne public health issues.⁵

Crumbine created his own flyswatter origin story before learning about the “fly killer” from Illinois. In 1905–6, he worked with Kansas Boy Scouts to launch a new anti-fly campaign. Always shrewd about public health communication, he heard the crowd at a baseball game shouting “swat the fly!” and had a sudden flash of insight to make this the campaign’s slogan. He claimed Kansas scouts invented the flyswatter for that campaign by cutting rectangular sections of window screens and attaching them to wooden sticks—even though this happened five years after Montgomery filed his “fly killer” patent. Still, Crumbine and the Scouts had been instrumental in coining the terms “swat” and “swatter.” The cultural familiarity of baseball as a U.S. “national pastime” and the fact that “swat/swatter” was more gently euphemistic than “kill/killer” helped to normalize and popularize the practice of fly killing. Around 1910, Bennett’s and Crumbine’s stories run together, as the Scouts launched a nationwide “Swat the Fly” campaign, inspired by Crumbine and supported by Bennett’s swatters.⁶

Crumbine’s anti-fly campaign dovetailed with the U.S. Wire Mat Company’s massive manufacturing project and the promotional force of the Boy Scouts through their magazine *Boys’ Life*, then subtitled “For Boys and Boy Scouts” or “The Boy Scouts’ Magazine.” In the 1910s, the U.S. Wire Mat Company marketed \$5.50 packs of 100 flyswatters to scouts through *Boys’ Life*, suggesting them as a way for boys to make money and serve community by reselling them to hygienically-minded friends, family, and neighbors. The ads read, “Everybody is a customer; everybody will be swatting the fly; every home should have one in every room.” The repeated word “every” illustrates the normalization of the flyswatter as everyday technology. Although marketing and money-making were clearly crucial here, the ads added an air of legitimacy by hinting that the flyswatter market reflected growing public awareness of, and concern for, disease and hygiene. The swatter industry and Crumbine cozied up, while public health and private profit peacefully coexisted.⁷

Kansas and Iowa scout troops joined the 1911 “Swat the Fly Crusade.”

4. Taylor, “Profiles: Swat the Fly!—II,” 29–31.

5. <http://www.crumbineaward.com/>.

6. Crumbine, *Frontier Doctor*, 156–63. For more on swat the fly campaigns, see: R. Alton Lee, *From Snake Oil to Medicine*, 53–56; Naomi Rogers, *Dirt and Disease*, 57–69.

7. Quote from: “Swat the Fly” (1915); see also “Swat the Fly” (1916), “Swat the Fly” (1917), and “Iowa.” For more on Crumbine, progressivism, and advertising, see Robert H. Wiebe, *The Search for Order*, 212.

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FIG. 3 Thornton Burgess (1874–1965). (Source: Wikimedia commons.)

The 1916 *Boys Scouts' Yearbook* contained advice on making fly traps, featured photos of proud scouts posing with fly traps, and included a pithy report that "The ladies of the Civic League in Poteau, Oklahoma, were enthusiastic over the help which the scouts gave them in a fly campaign." Boy Scouts leader Thornton Burgess (1874–1965) later praised fly-swatting efforts "all over the country" (fig. 3). A broad coalition of social actors ran these campaigns, including women's groups, the press, industry, reformers, and scouts, together with health experts and boosters like Crumbine. These campaigns reveal a fascinating historical constellation of midwestern U.S. states; progressive era reform for health, education, and welfare; and the social roles of women and children in everything from pest control to civic associations and social activism.⁸

In 1919, Crumbine explained the Scouts' crucial role in the fly battle in his entry for a new edition of a popular 1903 hygiene textbook:

One of the cardinal principles of the Boy Scouts is that the Scouts should be of service to others and to the community in which they live. This high ideal was put into practice by a number of the Boy Scout organizations in Kansas in the year 1911 by working in co-operation with the State Board of Health in its anti-fly campaign. Not only were the towns and cities given a most thorough cleaning, but the breeding places of the fly were destroyed. Wire "swatters" were made by the boys, and one provided free to every home in the city. Large fly traps were placed on the streets, and anti-fly literature distributed among the people. The Boy Scouts did splendid work, and their organization may be of great service to better health if local health boards will only show them what is to be done. Many a boy,

8. Photos in "Good Turns for Their Town," p. 23; Terrell Craft, "How to Make a Flytrap," p. 42; F. J. P., "When You Go to Camp," pp. 78–84; and "What Scouts Do," pp. 145–52, quote on 152; all in Walter P. McGuire and Franklin K. Mathiews, eds., *The Boy Scouts Yearbook* vol. 2. John Jackson of Clinton, Iowa patented the first device called "fly swatter" (U.S. patent No. 1,124,138, 15 January 1915).

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FIG. 4 Eleanor Gates (1874–1951). (Source: Wikimedia commons.)

after a day's work in an anti-fly campaign, may truthfully say,—“I saved a life today.”⁹

Literary authors also helped normalize the notion of the flyswatter. Though the most notable prose depiction of anti-fly campaigns is the satirical “Swat the Fly Week” in Sinclair Lewis’s 1925 novel *Arrowsmith*, the printed record holds other suggestive texts. First are two anonymous and widely-reprinted poems called “Swat the Fly.” One originated in 1911 with the *Indiana Health Bulletin*, and was later reprinted by the Kansas Board of Health and dental industry magazine *The Bur*. The other version, its text in a striking zig-zag layout, was reprinted in *Missouri School Journal* and political cartoon magazine *Judge*. A third, original “Swat the Fly” poem by May Farinholt Jones appeared in her 1916 children’s health text *Keep-Well Stories for Little Folks*.¹⁰

But the odd glinting gem of “Swat the Fly” literature is by New York playwright Eleanor Gates (1874–1951) (fig. 4). In her 1915 one-act fantasy *Swat the Fly!*, a group of lab animals (cat, dog, horse, monkey, and rabbit) kills a fly, ostensibly for trying to kill a young boy with diphtheria. A doctor saves the boy using a vaccine made from the horse’s lymph. The story reads as a multi-pronged moral-hygienic tale, promoting science, medicine, and human ingenuity, in which the doctor’s success silences a critic of vaccines and vivisection. The doctor believes animal testing and vac-

9. William Otterbein Krohn and Samuel J. Crumbine, *Graded Lessons in Physiology and Hygiene*, 261; see also “Kansas”; “Boy Scouts and a Clean City”; Thornton W. Burgess, “Making Men of Them.”

10. The first version originally in: “Swat the Fly,” *Monthly Bulletin*, 56, and reprinted in: “Swat the Fly,” *The Bur*, 157; and “Swat the Fly” in *Seventh Biennial Report of the State Board of Health of the State of Kansas*, 135–36. The second poem with its distinctive zig-zag layout in: “Swat the Fly” and “The Fly and the Buffalo,” both articles in *Judge*, n.p.; and “Swat the Fly,” *Missouri School Journal*, 270. The third poem in May Farinholt Jones, *Keep-Well Stories for Little Folks*, 18.

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FIG. 5 Henry Dreyfuss (1904–72). (Source: Wikimedia commons.)

cines are necessary and proper, and stresses that he works to reduce animal suffering. Above all, Gates's play reads like anti-fly and pro-vaccine propaganda steeped in the hygienic zeal promoted by Crumbine and his contemporaries. She later explained this agenda by noting that she heavily researched the play in scientific journals. Without ever mentioning the flyswatter, she was doing the cultural work of its normalization.¹¹

In the late 1930s, the U.S. Wire Mat Company changed its name to U.S. Manufacturing Corporation, which produced various consumer goods including a "dust puff" for cleaning cars, and both electric and open-fire popcorn poppers.¹² The mass manufacture of everyday and household technology continued. In the 1940s, an "amiable stranger" paid an unexpected visit to the New York office of Henry Dreyfuss (1904–72), among the United States' most famous industrial designers (fig. 5). After making several minutes of small talk, Dreyfuss wondered why the man had come, and asked, "Is there something I can do for you?" The man replied that he came to ask Dreyfuss to "design a fly swatter for me," and gradually revealed that he represented the U.S. Manufacturing Corporation, which then produced 20 million flyswatters yearly. Dreyfuss quickly sketched a design, declined the man's offer for payment, and marveled that the company's colossal production volume was possible because consumers largely treated swatters as disposable, buying new ones each summer. Although one zealous journalist dramatically claimed that Dreyfuss never saw a penny, Dreyfuss ended his own autobiographical account by noting his surprise months after the stranger's visit, when he started receiving "sizable royalty checks" for his de-

11. Eleanor Gates, "Swat the Fly!"; Eleanor Gates, "Swat the Fly."

12. *Official Gazette of the United States Patent Office* (May 1937): vii; *Official Gazette of the United States Patent Office* (March 1935): viii; Dust Puff advertisement.

sign as promised. Among Dreyfuss's innovations was the now-familiar use of plastics to replace metal and wood in flyswatter manufacturing.¹³

Conclusion

The process of constructing the flyswatter as an everyday artifact took about four decades, from Montgomery's 1900 patent to WWII. Prominent doctors, designers, manufacturers, playwrights, and scout leaders, in addition to countless anonymous others, had worked to make it so. By the time Gates, Crumbine, Burgess, Bennett, and finally Dreyfuss died, the flyswatter had become a durable social construction; its design and use were commonplace. The flyswatter was born out of late-nineteenth-century medical and hygienic culture and came of age in the mid-twentieth century's booming economy of mass production and mass consumption. The flyswatter became everyday thanks to public health authorities, zealous civil associations, entrepreneurs, designers, and writers who constructed it as a socially routine and stable artifact with a recognizable form and function.

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Bibliography

- Arnold, David. *Everyday Technology: Machines and the Making of India's Modernity*. Chicago: University of Chicago Press, 2013.
- "Boy Scouts and a Clean City." *The Living Church* (10 June 1911): 194.
- Burgess, Thornton W. "Making Men of Them." *Good Housekeeping* 59 (July 1914): 3–12.
- Crumbine, Samuel Jay. *Frontier Doctor: The Autobiography of a Pioneer on the Frontier of Public Health*. Philadelphia: Dorrance, 1948.
- _____, and William Otterbein Krohn. *Graded Lessons in Physiology and Hygiene*. New York: D. Appleton and Co., 1919.
- "Design: The Dreyfuss Touch." *Newsweek* 32, nos. 14–27 (1948): 62.
- Dreyfuss, Henry. *Designing for People*. New York: Simon and Schuster, 1955.
- Dust Puff advertisement. *Popular Mechanics* (September 1931): 128.
- "The Fly and the Buffalo." *Judge* 63, no. 1610 (24 August 1912): n.p.
- Friedel, Robert. *Zipper: An Exploration in Novelty*. New York: W. W. Norton, 1996.
- Gates, Eleanor. "Swat the Fly!": *A One-act Fantasy*. New York: Arrow, 1915.
- _____. "Swat the Fly." *Medical Review of Reviews* 21, no. 5 (May 1915): 289–93.
- "Hardware." *The Iron Age* (7 November 1907): 1330.
- "Iowa." *Boys' Life* (September 1911): 32.

13. J. D. Ratcliff, "Designer for Streamlined Living"; "Design: The Dreyfuss Touch"; Henry Dreyfuss, *Designing for People*, 153–54.

- "John L. Bennett, Beer Can Pioneer." *New York Times*, 7 June 1966, 47.
- Jones, May Farinholt. *Keep-Well Stories for Little Folks*. Philadelphia: Lip-pincott, 1916.
- Josephson, Paul. *Fish Sticks, Sports Bras, and Aluminum Cans: The Politics of Everyday Technologies*. Baltimore: Johns Hopkins University Press, 2015.
- JULY "Kansas." *Journal of Education* (1 June 1911): 613.
- 2019 "King Fly Killer." *The American Stationer* 53 (1903): 14.
- VOL. 60 "The King Fly Killer." *The Iron Age* (7 May 1908): 1497.
- "The 'King' Fly Killer." *National Druggist* (33 February 1903): 53.
- Lee., R. Alton. *From Snake Oil to Medicine: Pioneering Public Health*. Westport, CT: Praeger, 2007.
- McGuire, Walter P., and Franklin K. Mathiews, eds. *The Boy Scouts Year-book*. Vol. 2. New York and London: D. Appleton and Company, 1916.
- Myllyntaus, Timo. "Prologue: Constructing Technology for Everyday Life." *ICON* 16 (2010): 3–21.
- Official Gazette of the United States Patent Office* 478 (May 1937).
- Official Gazette of the United States Patent Office* 452 (March 1935).
- Parr, Joy. *Sensing Changes: Technologies, Environments, and the Everyday, 1953–2003*. Seattle: University of Washington Press, 2010.
- "Price-Lists, Circulars, &c." *The Iron Age* (27 February 1902): 67.
- "Recent Trade Publications." *Hardware* (25 March 1902): 29.
- Ratcliff, J. D. "Designer for Streamlined Living." *Coronet* 22, no. 2 (June 1947): 22.
- Reeves, Hope. "Who Made That (Fly Swatter)?" *New York Times*, 27 May 2012, MM16.
- Rogers, Naomi. *Dirt and Disease: Polio before FDR*. New Brunswick, NJ: Rutgers University Press, 1992.
- "Stove and Hardware Dealers." *The Metal Worker* (29 December 1900): 33.
- "Stove and Hardware Dealers." *The Metal Worker* (1 March 1902): 39.
- "Swat the Fly." *Boys' Life* (August 1915): inside front cover.
- "Swat the Fly." *Boys' Life* (March 1916): 36.
- "Swat the Fly." *Boys' Life* (July 1917): 42.
- "Swat the Fly." *Monthly Bulletin, Indiana State Board of Health*, no. 4 (April 1911): 56.
- "Swat the Fly." *The Bur* 16, no. 5 (September 1911): 157.
- "Swat the Fly." *Judge* 63, no. 1610 (24 August 1912): n.p.
- "Swat the Fly." In *Seventh Biennial Report of the State Board of Health of the State of Kansas from June 30, 1912 to June 30, 1914*, 135–36. Topeka: Kansas State Printing Office, 1914.
- "Swat the Fly." *Missouri School Journal* 32 (1915): 270.
- Taylor, Robert Lewis. "Profiles: Swat the Fly!—I." *New Yorker* (17 July 1948): 31–38.

_____. "Profiles: Swat the Fly!—II." *New Yorker* (24 July 1948): 28–36.

Wiebe, Robert H. *The Search for Order, 1877–1920*. New York: Hill and Wang, 1967.

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