

Lisa D. Cook

Overcoming Discrimination by Consumers during the Age of Segregation: The Example of Garrett Morgan

From professional baseball to legal services, discrimination against sellers became widespread in the late 1800s and early 1900s. This article examines the means by which African American inventor-entrepreneurs overcame discrimination against them by consumers. It makes use of data from the advertising records of Garrett Morgan, who invented the gas mask and the traffic light. Both the deliberate use of measures, such as disguises and surrogates, and serendipity (the result of the racial neutrality of patents) were critical in facilitating sellers' anonymity and in promoting desirable economic outcomes.

Over the past four decades, researchers have used audit studies, or experimental field-work, to present persuasive evidence of discrimination by consumers based on the race of sellers in modern labor and product markets. For example, using field experiments from the sports-card market, John List has shown that minorities—in this case, older, nonwhite, females—received worse initial and final offers from dealers than other card-sellers.¹ Ian Ayres, Fredrick E. Vars, and Nasser Zakariya examined more than one thousand tips received by twelve taxicab drivers in 2001 and found that tips given to African American drivers were one-third lower than those offered white drivers.² Michael

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¹John List, "The Nature and Extent of Discrimination in the Workplace: Evidence from the Field," *Quarterly Journal of Economics* (Feb. 2004): 49–89.

²Ian Ayres, Fredrick E. Vars, and Nasser Zakariya, "To Insure Prejudice: Racial Disparities in Taxicab Tipping," *Yale Law School Journal* 114, no. 7 (May 2005): 1613–74.

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Lynn and his coauthors documented disparate restaurant-tipping behavior based on the race of servers.³

The emphasis in these and related studies largely has been on establishing that such patterns exist. Less attention has been paid to the methods firms have used to address them.

In sectors like professional baseball, photography, and legal services, previously integrated economic activity became increasingly segregated as discrimination by consumers became more common throughout the United States during the late nineteenth to early twentieth centuries. Operations of firms owned by both whites and blacks were disrupted by these trends. An examination of the methods African American firms used to remedy the situation could simultaneously elucidate historical events and offer insights related to addressing modern-day consumer discrimination.

Unique historical advertising records offer indirect evidence of consumers' discriminatory practices and direct evidence of the means that were used to address them. The extensive collection of promotional materials containing cards, flyers, pamphlets, stationery, and newspaper advertisements corresponding to various products invented, manufactured, and sold by Garrett A. Morgan, inventor of the gas mask and the traffic light, is a particularly useful resource. His rare artifacts are especially interesting and useful because, unusually during that time, Morgan was actively engaged in marketing to white and black consumer markets simultaneously and across regions. In this article, I explore the impact of an unpredicted event on Morgan's publicity plans for his gas mask and the disruption that resulted from the unintended revelation of his race that followed. By recounting his story, I will reveal an inventor's experience of consumer discrimination and show his responses to it.

Morgan's story, coupled with data from his contemporaries, demonstrates that African Americans who became inventors and entrepreneurs were both blessed and cursed by their dual role. They possessed a tradable asset, a patent, but they also faced considerable discrimination that stemmed from negative perceptions of African American inventions based on consumers' tendency to associate inventors with their products. Like a number of his peers, Morgan responded to discrimination

³Michael Lynn, "Black-White Differences in Tipping Various Service Providers," *Journal of Applied Social Psychology* 34, no. 11 (2004): 2261–71; Michael Lynn, "Race Differences in Restaurant Tipping: A Literature Review and Discussion of Practical Implications," *Journal of Foodservice Business Research* 9, no. 4 (2006): 99–113; Michael Lynn et al., "Consumer Racial Discrimination in Tipping: A Replication and Extension," *Journal of Applied Social Psychology* 8, no. 4 (2008): 1045–60. Race was not the only basis of discrimination. See, for instance, Petra Moser, "Taste-based Discrimination: Evidence from a Shift in Ethnic Preferences after WWI," *Explorations in Economic History* 49, no. 2 (Apr. 2012): 167–88.

by seeking anonymity. His three-pronged strategy for becoming anonymous consisted of creating distance between himself and his invention, obtaining public sponsorship, and seeking others to represent him personally by, for example, conferring his identity on a surrogate. He also benefited from the fact that patents offered both traditional and non-traditional means to minimize transactions costs: tradable property rights and—with the assistance of patent agents and attorneys and aided by the patent-office system of record-keeping—racial anonymity. In the face of growing discrimination, the ability to cloak one's race offered a unique and unintended, if not timely, means of minimizing discrimination by consumers and improving gains from trade.

My main purpose in this study is to demonstrate how African American sellers found meaningful ways of circumventing consumer prejudice. The example of Garrett Morgan reveals how an inventor and manufacturer relied on anonymity to minimize the effects of biased behavior. The findings suggest that, both then and now, mechanisms that enable sellers to remain anonymous may limit the effects of consumers' prejudice.

Discrimination and Advertising in the Era of Segregation

On the one hand, marked increases in migration from the South and greater race-based restrictions (such as proliferation of laws promoting segregation or Jim Crow laws) provided opportunities for new and existing firms in the African American community outside the South.⁴ New migration to the North increased the extent of the market. Growing discrimination against African American sellers by white buyers created new opportunities for sellers in the African American community.⁵ Table 1 presents census data on firms and employees by type between 1890 and 1930. Throughout this span of time, the number of enterprises and employees nearly tripled, increasing markedly in almost

⁴Only six states—Iowa, Michigan, Minnesota, Pennsylvania, Vermont, and Wisconsin—did not pass statewide laws imposing racial segregation between 1890 and 1930. Many of these Jim Crow laws were passed following the Supreme Court's repeal of provisions of the Civil Rights Act of 1875 in 1883 and the Supreme Court's *Plessy v. Ferguson* decision, which upheld the "separate but equal" doctrine, in 1898. These data understate the magnitude of both laws and practices. Housing restrictions, for example, were largely promulgated by local and municipal governments. Further, not all discriminatory customs and practices were formalized through legislation. See John Hope Franklin, *From Slavery to Freedom*, 7th ed. (New York, 1994); Eric Foner, *Reconstruction: America's Unfinished Revolution, 1863–1877* (New York, 1988); and Leon F. Litwack, *Trouble in Mind (Black Southerners in the Age of Jim Crow)* (New York, 1998), for rich discussions of the context in which these laws were being created and their consequences.

⁵Similarly, the number of African American consumers limited to patronizing African American firms would have increased due to intensified discrimination by white sellers against African American consumers.

Table 1
African American Firms, Owners, and Employees, 1890–1930

<i>Type of Firm</i>	<i>1890</i>	<i>1900</i>	<i>1910</i>	<i>1920</i>	<i>1930</i>
Agents/salesmen	2,288	4,904	9,054	8,293	25,534
Barbers/hairdressers	17,480	19,942	22,534	31,352	34,263
Bankers/brokers/clerks	114	82	241	142	267
Hotel keepers	420	481	973	1,020	1,064
Journalists	134	210	220	251	367
Photographers	190	247	404	608	545
Restaurant keepers	2,157	3,993	6,369	7,511	10,543
Retail merchants	6,646	9,095	13,924	23,526	28,213
Saloon keepers	932	890	1,663	96	—
Undertakers	231	453	953	1,558	2,946
Wholesale merchants	535	148	257	67	130
Total	31,127	40,445	56,592	74,424	103,872

Source: Juliet E. K. Walker, *The History of Black Business in America: Capitalism, Race, Entrepreneurship* (New York, 1998), 223.

every category. Many observers, including Juliet E. K. Walker, consider this period the apex of African American entrepreneurship.⁶

This was the golden age of black business, which saw the emergence of leading black capitalists who achieved millionaire status and established million-dollar enterprises. Their wealth reflected their success within a black economy, which developed in response to the nation's rise of two worlds of race.⁷

New business opportunities arose in the North.⁸ For example, grocers expanded their offerings to include southern products, and new restaurants specialized in southern cuisine.

⁶ John Sibley Butler, *Entrepreneurship and Self-Help among Black Americans: A Reconsideration of Race and Economics* (Albany, 1991, 2005), situates this history of black firms in the context of a broader history of entrepreneurship in community organizations.

⁷ Juliet E. K. Walker, *The History of Black Business in America: Capitalism, Race, Entrepreneurship* (New York, 1998), 182–83. A large literature arose during the period of interest to describe and encourage the “black” economy, including W. E. B. Du Bois, *The Negro in Business* (New York, 1899 [1971]); Booker T. Washington, *The Negro in Business* (Boston, 1907); J. H. Harmon Jr., Arnett G. Lindsay, and Carter G. Woodson, *The Negro as a Business Man* (College Park, Md., 1929); and Abram L. Harris, *The Negro as Capitalist: A Study of Banking and Business among American Negroes* (Philadelphia, 1936). In addition, in 1912, Tuskegee University's Monroe T. Work began publishing the *Negro Yearbook and Annual Encyclopedia of the Negro*, which provided detailed, incremental evidence on growth and changes in this economy.

⁸ John N. Ingham, “Building Businesses, Creating Communities,” *Business History Review* 77 (Winter 2003): 639–65, chronicles how southern blacks responded to increasing segregation and built vital new firms in the black community slightly before segregation became widespread in the North.

On the other hand, migration and increasing segregation imposed direct and indirect penalties on black firms. In general, African American migrants from the South had been employed in the agricultural sector and were significantly poorer, less literate, and less skilled than their northern counterparts.⁹ Northern manufacturing jobs paid wages that were two to three times higher than those paid for farm jobs in the South.¹⁰ Relative poverty made southern migrants less able to purchase the goods and services offered by African American–owned or any other firms in northern cities. Insurance companies owned by whites stopped issuing policies for African American homes in segregated neighborhoods, which made it difficult or impossible for aspiring small-business owners to finance start-up activities, operations, or growth through mortgages.¹¹ With a change in the composition of customers that resulted in the average customer’s being poorer and having less access to financing, newly geographically confined black firms also lost market share to white firms in similar industries.

One alternative for a profit-maximizing African American firm would have been to shift the distribution of clients toward richer whites. Yet this became increasingly difficult as discrimination by consumers became more prevalent. For example, until 1898, organized baseball was integrated but, as Alexander Wolff points out, due to shifts in spectator tastes, African Americans were banned as players in an effort to increase the number of white spectators.¹² Similarly, evidence of discrimination against sellers during this period can be gleaned from the willingness of firms to display comedic or caricatured, rather than positive

⁹See Robert Higgs, “Firm-Specific Evidence on Racial Wage Differentials and Workforce Segregation,” *American Economic Review* 67, no. 2 (Mar. 1977): 236–45; Robert A. Margo, “Educational Achievement in Segregated School Systems: The Effects of ‘Separate-but-Equal,’” *American Economic Review* 76, no. 4 (Sept. 1986): 794–801; Robert A. Margo, “Accounting for Racial Differences in School Attendance in the American South, 1900: The Role of Separate-but-Equal,” *Review of Economics and Statistics* 69, no. 4 (Nov. 1987): 661–66; and Robert A. Margo, *Race and Schooling in the South, 1880–1950*. Chicago: University of Chicago Press, 1990, for a detailed description and analysis of wage, income, and educational characteristics of southern blacks in the era of segregation; Thomas N. Maloney and Warren C. Whatley, “Making the Effort: The Contours of Racial Discrimination in Detroit’s Labor Markets, 1920–1940,” *Journal of Economic History* 55, no. 3 (Sept. 1995), for a meticulous account of black workers’ responses to labor-market discrimination; and Robert E. Weems Jr., *Desegregating the Dollar* (New York, 1998), for a detailed description of the African American consumer market at this time.

¹⁰See Committee on Housing and Sanitation of the Cleveland Chamber of Commerce (1918) cited in Kenneth L. Kusmer, *A Ghetto Takes Shape: Black Cleveland, 1870–1930* (Urbana, 1976).

¹¹While it is unclear precisely when this practice started, the consensus in the literature suggests between the mid-1890s and the early 1910s. See, for example, Walker, *The History of Black Business in America*.

¹²Alexander Wolff, “Lost History: The NFL’s Jackie Robinson,” *Sports Illustrated*, 12 Oct. 2009.

or at least neutral, images of African Americans in their advertising. Firms' sales declined when consumers in any part of the country perceived that their products were closely tied to African Americans or African American issues. Firms' calculations and their resulting risk aversion were likely based on past experience. Marilyn Kern-Foxworth cites a boycott by southern consumers of Philip Morris during the 1950s after the company sponsored a beauty contest that was won by an African American female.¹³ Louis Haber, among other authors, notes that sales of Elijah's "Real McCoy" oil-drip cup fell dramatically when he appeared on sites in person to install the device, despite its record of reducing train engine fires in the United States by nearly two-thirds. Railroad workers started referring to it as the "nigger cup."¹⁴ James Brodie and Patricia Sluby each report that the Cincinnati manufacturing facility of Henry Boyd, whose well-known beds displayed his trademark, was destroyed by arsonists three times in the mid-1800s.¹⁵ Henry Baker, an African American patent examiner who conducted Patent Office surveys to identify African American patentees in 1900 and 1913, noted that they were difficult to find because they, aided by white patent agents and attorneys, fiercely guarded their identities in order not to reveal their race, which could diminish sales if it were known.¹⁶

Certainly, as a result of segregation and of the new legal barriers to interracial economic interactions, marketing goods and services to white clients became increasingly costly for black firms. From attempts to institute "white-only" policies to more subtle measures, keeping or attracting relatively richer white customers required a range of new costs.

In general, advertising practices at the turn of the century differed sharply according to the race of the seller. Ads for scientific inventions often featured images of their inventors or developers. As Pamela Walker Laird recounts in her comprehensive history of the advertising industry, many inventors advanced their innovations by proclaiming that their contributions represented scientific and consumer progress.¹⁷ A

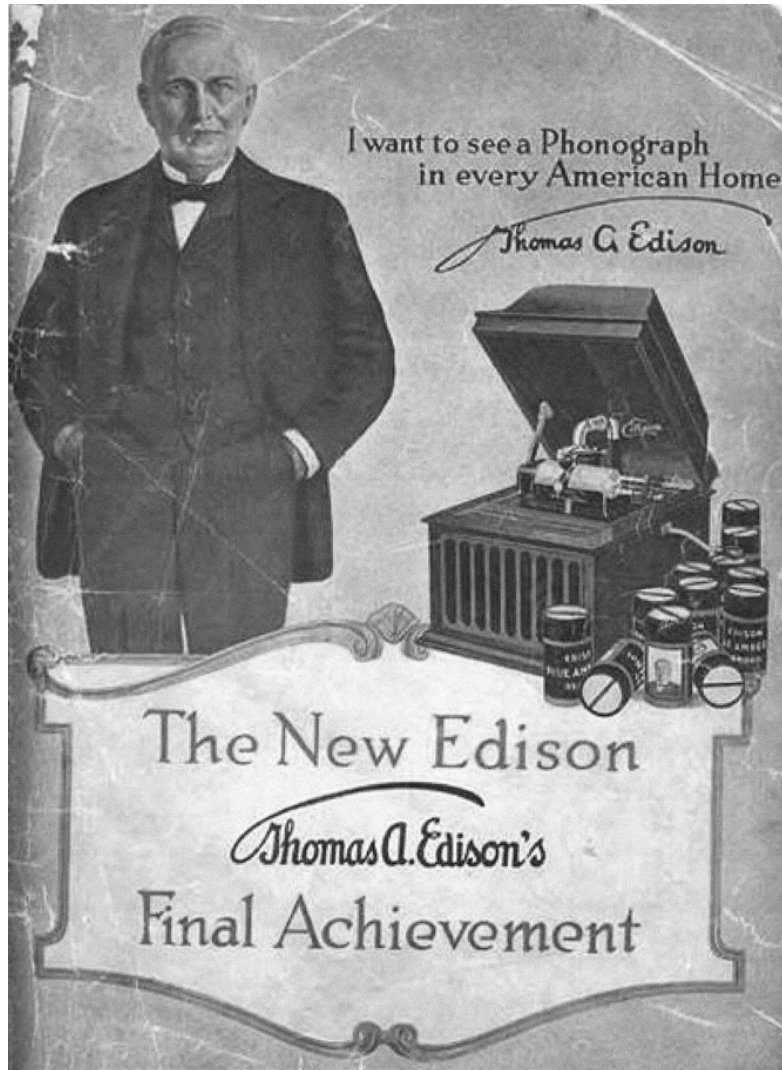
¹³ Ibid., 38. Stephanie Capparell in *The Real Pepsi Challenge: The Inspirational Story of Breaking the Color Barrier in American Business* (New York, 2007) gives a detailed account of the stereotypes that existed in marketing to African Americans and how they changed with the growing number of black professionals employed by Pepsi Cola.

¹⁴ Louis Haber, *Black Pioneers of Science and Invention* (New York, 1970).

¹⁵ James Michael Brodie, *Created Equal: The Lives and Ideas of Black American Innovators* (New York, 1993); Patricia Carter Sluby, *The Inventive Spirit of African Americans* (Westport, Conn., 2004).

¹⁶ Henry E. Baker, Correspondence with Carter G. Woodson, Henry Baker Papers, Carter G. Woodson Collection, Library of Congress, 1914. In the completed surveys, Baker found both several hundred patentees and ignorance of African American inventors reported by patent agents and attorneys. Patent agents and attorneys were white until the 1970's.

¹⁷ Pamela Walker Laird, *American Business and the Rise of Consumer Marketing* (Baltimore, 1998).



Thomas Edison's Phonograph Advertisement, undated, c.1905. (Phonograph Catalog/Advertisement: "I want a phonograph in every home . . .," Edison Manufacturing Co. Inventing Entertainment: The Motion Pictures and Sound Recordings of the Edison Companies, Library of Congress, Washington, D.C.)

number of early advertisements by Henry Ford and Thomas Edison contained their images, as did those of lesser-known white inventors like John Davey, who developed tree-surgery techniques. At the same time, African Americans' images rarely or never appeared on their inventions or in advertisements destined for broader audiences, even when the inventors were well known.

In contrast, major manufacturers began to use images of African Americans to promote products related to domestic service and agricultural innovation. Characters portraying domestic servants—for example,

Aunt Jemima (pancake mix) and Uncle Ben (rice)—were introduced and became popular at this time.¹⁸ Furthermore, whether they appeared in black-owned or general-circulation newspapers, manufacturers' early advertisements featuring blacks often pictured them as having exaggerated physical features, and the ads used derogatory language for descriptions, in product names as well as in ad copy.¹⁹ While African Americans were often portrayed as being of inferior intellect and capable of excelling only in menial jobs, such sentiments do not appear to have negatively affected the perception of the quality of the domestic products associated with their images, such as Cannibal drainpipe cleaner and Pickaninny Brand peanut butter.²⁰

During this era, the advertising industry was becoming more professional, and relegating advertising to specialists increased the effectiveness of promotional materials while making larger markets more accessible to innovators. Nonetheless, growing race-related legal restrictions required more intense efforts by African Americans to disseminate information about their inventions.

Existing beliefs related to African Americans' inventiveness complicated the situation further. Among whites, views regarding blacks as inventors during the eighteenth, nineteenth, and early twentieth centuries varied greatly, depending on the slave status or history of the inventor. Then general beliefs about black inventors among whites converged in the postbellum period.

Beliefs about slave inventors were split. On the one hand, some argued that slavery retarded technological advances.²¹ Proponents of this view sometimes extended it to argue that their training in the slave system made both slaves and former slaves less capable of developing and adopting new technology, rendering them capable only of performing simple, mind-numbing, and repetitive tasks. Correspondingly, the widespread recognition that slaves had been prohibited from learning to

¹⁸ See the Advertising Ephemera Collection at the John W. Hartman Center for Sales, Advertising, and Marketing at Duke University for a rich and detailed collection of advertising images from this period.

¹⁹ Kern-Foxworth, *Aunt Jemima*, 30–31.

²⁰ *Ibid.*, 30–33. Nonetheless, early research by Paul K. Edwards in the *Southern Urban Negro as a Consumer* (New York, 1932) showed that African American consumers often reacted negatively to the caricatured images and that advertising experiments using non-derogatory images, such as the one conducted by the Kellogg Company in the mid-1930's, increased revenues from sales in African American markets.

²¹ R. Keith Aufhauser, "Slavery and Technological Change," *Journal of Economic History* 34, no. 1 (1974): 36–50. More broadly, Gavin Wright in *The Political Economy of the Cotton South*, New York: Norton, 1978, argues that the southern slave labor market was at the center of a very costly system that sought to impede industrial development, which had been the chief source of technological advancement in the North.

read and write also led to the perception that their abilities and both their potential and actual output had been constrained.²²

On the other hand, many southerners in slave states observed that slaves could be skilled laborers who were capable of invention. Profit-maximizing plantations valued self-sufficiency. In those establishments, slaves were trained to work as blacksmiths, tanners, weavers, spinners, shoemakers, carpenters, and coopers, and to perform other skilled jobs. Southerners also knew these skilled laborers as labor-market competitors, since some were allowed by slave masters to hire themselves out for market-oriented activities.²³ Evidence of the high value assigned to these skills comes from advertisements posted by masters and slave traders.²⁴ Outside the South, notices about runaways listing their skills often described highly talented, able individuals.

A corollary of this view, espoused by many southerners, was that free blacks were not capable inventors. An antebellum consumer of agricultural innovation and a former governor of Mississippi, Albert G. Brown, upon his inspection of a newly manufactured invention by a slave, made a comment supporting the theory that freed African Americans possessed limited inventive capacity:

I have tried your “DOUBLE PLOUGH AND SCRAPER” and have no hesitation in saying that it comes up fully to your description of it. It bars off and scrapes both sides of a cotton row at once, and does the work quite as well as it can be done by any other mode. . . . It will, in my judgment, be the very best agricultural implement ever offered to the cotton planter.

. . . I am glad to know that your implement is the invention of a negro slave—thus giving a lie to the abolition cry that slavery dwarfs the mind of the negro. When did a free negro ever invent anything?²⁵

²² In fact, during the age of the independent inventor and much of the nineteenth century, a number of inventors were illiterate. This included prolific inventors reviewed in B. Zorina Khan and Kenneth L. Sokoloff, “‘Schemes of Practical Utility’: Entrepreneurship and Innovation among ‘Great Inventors’ in the United States, 1790–1865,” *Journal of Economic History* 53, no. 2 (1993): 289–307 [updated 2004]; and Lisa D. Cook, “Inventing Social Networks: Evidence from African American ‘Great Inventors,’” *Explorations in Economic History* 48, no. 4 (2011): 507–18. A more serious problem for inventors would have been innumeracy, as models and drawings were required with a patent application.

²³ For example, Harlan Greene, Harry S. Hutchins Jr., and Brian E. Hutchins review the formal slave-hire system in South Carolina between 1783 and 1865; Harlan Greene and Harry S. Hutchins Jr. with Brian E. Hutchins, *Slave Badges and the Slave-Hire System in Charleston, South Carolina, 1783–1865* (Jefferson, N.C., 2004). T. Stephen Whitman examines wills filed in Maryland to obtain hire rates for slaves, particularly blacksmiths and shipwrights, between 1800 and 1825; T. Stephen Whitman, *The Price of Freedom: Slavery and Manumission in Baltimore and Early National Maryland* (Lexington, Ky., 1997). Janet Sharp Hermann describes the varied skills that inventor Benjamin Montgomery acquired and used as a slave, including architecture, land surveying, and entrepreneurship; Janet Sharp Hermann, *The Pursuit of a Dream* (New York, 1981).

²⁴ Kern-Foxworth, *Aunt Jemima*.

²⁵ Dorothy Cowser Yancy, “The Stuart Double Plow and Double Scraper: The Invention of a Slave,” *Journal of Negro History* 69, no. 1 (1984): 50–51.

Since little was written about free black inventors outside the South, other Americans were also unaware of their achievements in the antebellum period. There is some evidence that free black inventor-entrepreneurs, like Boyd, faced resistance and experienced violence against their firms.

By the early twentieth century, perceptions of African American inventor-entrepreneurs were divided between ignorance and racial animus. Even some patent attorneys were unaware of the numbers and accomplishments of black inventors. In Baker's 1913 U.S. Patent Office survey of nine thousand patent attorneys and agents, a response by the attorney B. J. Nolan of Chattanooga reflected a common belief:

I never knew a Negro to even suggest a new idea. Much less try to patent one. And I have dealt with them all my life.

P.S. I have asked other lawyers around me for data of Negro inventions. And they take it as a joke.²⁶

Further, the growing eugenics movement promulgated a racial hierarchy, stressing in particular white superiority and black inferiority in scientific capability and achievement. S. Colum Gilfillan reflected the sentiments of such proponents in the sociology of science at the time when he described "desirable" characteristics of inventors and proposed that the diminution of these characteristics had led to a decline in the stock of knowledge among Americans:

Yet invention can come only at the hand of some sort of inventors, and its directions, frequency and efficiency are determined wholly thru deliberate actions by these men, in some proportion to their absolute numbers, intelligence, moral traits, strength of motives for inventing, time free for it, and mental and mechanical equipment for it. . . .

There is good reason to think that the native ability of the American people is declining, thru dysgenics, and immigration latterly chiefly of the poorer classes.²⁷

²⁶See Henry E. Baker, *The Colored Inventor* (New York, 1969, reprint of 1913 ed.). The term "Patent Office" will be used interchangeably with "U.S. Patent Office" and "U.S. Patent and Trademark Office" throughout the article. The term "patent" largely refers to a utility patent, which is issued for any new and useful process, machine, manufacture, composition of matter, or any new and useful improvement thereof. Utility patents constitute the majority of patents granted in the U.S. While it is standard practice to use patents as a proxy for inventive activity and inventive activity that is commercialized (innovation), it should be recognized that this measure has limitations because, for instance, not all inventions are patentable or patented. However, direct measurement of invention is not generally possible and, in particular, not available, given the limitation of historical data needed for this study.

²⁷S. C. Gilfillan, *The Sociology of Invention* (Cambridge, Mass., 1935), 10, 112.

Faced with this hostile environment, the African American inventor-entrepreneur's ability to sell his or her technology to the general public, which was already complex, became appreciably more so.

How did African American firms combat growing discrimination by white consumers? Most of these firms decided to service the emerging "black economy" exclusively, particularly funeral homes, beauty salons, beauty-product manufacturers, bus companies, and financial institutions. We know very little about African American firms that opted to attract or maintain white consumers. A few went to extremes. Samuel Clayton Green, a Cleveland African American businessman, attempted to attract whites to his skating rink by instituting "white only" days.²⁸ Others seemed to have undergone a relatively easier transition to all white customers. Douglas Bristol shows that black barbers were able to retain their white patrons by excluding blacks.²⁹ There is some evidence that blacksmiths, tailors, seamstresses, and other skilled craftsmen were occasionally able to make relatively seamless transitions from less to more segregation and discrimination, owing to their personal reputation and the generally favorable view of African American participation in these trades. Little is known, however, about how African American businesses, particularly those creating and producing new goods, responded to discrimination by consumers.³⁰

Was Boyd's strategy of continuously rebuilding and hoping for a change in consumer sentiment commonplace? Alternatively, did inventor-entrepreneurs more typically move from retail sales to wholesale distribution in order to avoid dealing with the general public altogether? The latter option seems unlikely. The entry in Table 1 listing wholesale merchants shows a decline in wholesale distribution by African American firms and workers. However, little is known about how African Americans responded to the business climate. Historical records typically provide little information about events and outcomes, and even less about decisions related to observed events and outcomes. The records of one African American inventor-entrepreneur that have been gathered in the Garrett A. Morgan papers collection at the Western

²⁸ Clayton entry, *Encyclopedia of Cleveland History*, Case Western Reserve University, <http://ech.cwru.edu/ech-cgi/search.pl>, accessed 10 Nov. 2009. Such a move was ultimately declared illegal following a lawsuit by a black patron who was not allowed to enter on a "white only" night.

²⁹ Douglas Walter Bristol Jr., *Knights of the Razor: Black Barbers in Slavery and Freedom* (Baltimore, 2009).

³⁰ The evidence on consumer-side discrimination is not only scarce but it also cannot provide a distinction between the motives of prejudice and statistical discrimination. For example, the aforementioned attacks on Midwestern inventors, Boyd and McCoy, could have been attributed to either source. The targets of discrimination do not provide attribution of these sources nor do those reporting the events affecting African American sellers.

Reserve Historical Society Library & Archives fills in some of the gap in the literature, allowing us to track the course of his invention of the gas mask from patented idea to marketed device. This account demonstrates how discrimination against African American inventors emerged and details some of the ways the inventor responded to it.

Garrett Morgan Addresses Discrimination Against Sellers

When data about the costs and revenue of firms are absent, advertising data provide a useful alternative source of information about sellers' decisions. The uniqueness of the Garrett A. Morgan papers collection derives from two features. First, records of nonfinancial firms founded by African Americans are rare, and those that exist are often limited. Among other items, this collection contains hundreds of drawings of inventions, newspaper clippings, business cards, pamphlets, event programs, membership certificates, campaign paraphernalia, flyers, advertisements, and a limited number of financial and legal records and items related to business and personal correspondence.³¹ Collected items date from approximately 1894 to 1970. More than four hundred print advertisements, promotional cards, pamphlets, newspaper articles, campaign flyers, and pieces of company stationery contained in the papers describe Garrett Morgan's inventions, entrepreneurial endeavors, and quest for elected office. I have supplemented this resource with archival material from other collections and secondary sources. The type and number of available items cover a considerable range of heterogeneous pieces. Morgan's likeness appears in many, but not all, of the promotional materials.

Nearly half of the promotional items gathered in the papers relate to the gas mask, or safety hood or helmet, that Morgan invented, received two patents for in 1914, manufactured, and sold nationally and internationally through the National Safety Device Company, or Nadsco. Although this was only one of his many inventions and entrepreneurial activities, it was the only item that he both patented and manufactured. (See Table 2.) Because of the relative abundance of material on the safety helmet, I have made it the focus of this article.³²

A second unique aspect of Morgan's marketing strategy is that, unlike most of his peers, he marketed his product (in this case the safety helmet) extensively to both white and black consumers, and his promotional

³¹His civic affiliations and campaign for the Cleveland city council are detailed in Cook, "Inventing Social Networks."

³²Interestingly, while Morgan owned a newspaper, very few of the newspaper clippings relate to his own products and services, which is suggestive that he did not use his own paper as a significant vehicle for promotion of his products and services.

Table 2
Garrett Morgan's Inventions and Enterprises

<i>Inventions</i>	<i>Patent Number</i>	<i>Grant or Invention Date</i>
Safety hood (gas mask)	1090936, 1113675	1914
Traffic light ^a	1,475,024	1923
Decurling comb	2,762,382	1956
→ Improvement to sewing machine*	n/a	1901
Hair- and skin-care products	n/a	1905
Automatic cooker	n/a	1933
Hat, belt fasteners, friction drive clutch	n/a	n/a
Self-extinguishing cigarette filter	n/a	n/a
		<i>Date Founded</i>
<i>Entrepreneurial Activities</i>	<i>Name</i>	
Hair- and skin-care products	G.A. Morgan Hair Refining Company	1905
Sewing-machine repair and sales shop	n/a	1907
Clothing manufacture and sales	Morgan's Cut-Rate Ladies Clothing Store	1909
Gas mask	National Safety Device Company	1912
Newspaper	<i>Call & Post</i>	1916
Real estate development	Wakeman Country Club	1923

Source: Garrett A. Morgan papers collection, Western Reserve Historical Society; U.S. Patent and Trademark Office; Louis Haber, *Black Pioneers of Science and Innovation* (New York, 1970).

^aRights to invention were sold.

Note: The *Cleveland Call* newspaper founded by Morgan was merged with the preexisting *Post* newspaper between 1927 and 1929. Patent grant dates and numbers are for U.S. patents. Data not applicable are denoted by "n/a."

materials were carried in these two markets simultaneously. Some of the items offer both indirect evidence of discrimination by consumers and direct evidence of Morgan's response to it. I will explore the variation in his responses later on.

From careful inspection of advertisements and related material, it seems that Morgan developed a three-pronged strategy to advertise his gas mask.³³ It involved achieving anonymity by dissociation rather than

³³While Morgan obtained a patent for a straightening comb in 1956, it is not included in this analysis. The only advertisements for the comb available in the Garrett Morgan Papers are dated prior to 1956. In the thirty-three years between the penultimate patent and the last patent, significant and independent changes had occurred in the advertising industry and in the racial climate. Further, Garrett Morgan developed a national and international reputation as an inventor by 1956, which may have changed his marketing strategy in a nontrivial way.

association, private representation, and public sponsorship, and by leveraging the anonymity of patents.

Dissociation. His papers reveal that Morgan tested his new inventions extensively, was confident about their novelty and usefulness, and sought external validation of their superior quality. Live demonstrations were a popular means of spreading news about inventions. Most fairs and exhibitions where new technology could be displayed or demonstrated to large crowds housed inventions by African Americans in separate buildings, or on different days, at the turn of the century.³⁴ One important exception was the Second International Exposition of Safety and Sanitation held in New York in 1914, where Morgan won a gold medal, or First Grand Prize, for his gas mask, a fact that he advertised in trade journals and to a broader audience in newspapers and other publications.

One of Morgan's most widely reported demonstrations was unintended, and it elicited both positive and negative reactions from actual and prospective customers. In July 1916, there was a natural-gas explosion at a site where workers were building a tunnel under Lake Erie. Several workers were trapped, and eleven of them died, along with ten others who attempted to rescue them. Morgan and his brother Frank were called by city officials in the middle of the night and asked to join the dangerous rescue and recovery effort by deploying the safety helmet. Until the Morgans arrived, no one was able to reach the workers, either to save their lives or to locate their bodies. To the surprise of many, the Morgans brought out two workers alive and recovered the dead bodies.³⁵ This event was much publicized on national news wires, and Garrett Morgan was awarded one medal from a Cleveland civic organization and another one from the International Association of Fire Engineers. A number of fire departments across the country enthusiastically placed new or additional orders after accounts of the helmet's success were published.

Simultaneously, officials in a number of southern cities learned that the helmet was identified with its African American inventor, causing

³⁴Petra Moser, "How Do Patent Laws Influence Innovation? Evidence from the World Fairs," *American Economic Review* 95, no. 4 (Sep. 2005): 1214–36, has recently shown the critical influence of fairs in the history of e modern innovation. At many fairs, there was a ← ? "Negro building" where black inventors could pitch their inventions, or a "Negro day" during which only African Americans could visit a fair. For instance, Philip S. Foner, "Black Participation in the Centennial of 1876," *Phylon* 39, no. 4 (4th qtr., 1978): 283–96, reports that Joseph H. Dickinson, a prolific inventor of musical and mechanical instruments, could only display his inventions and view other exhibits at the Centennial Exposition in Philadelphia in 1876 in the "Negro building."

³⁵See William M. King, "Guardian of the Public Safety: Garrett A. Morgan and the Lake Erie Crib Disaster," *Journal of Negro History* 70, no. 1/2 (Winter–Spring 1985): 1–13, for a rich description of the rescue and its coverage.

them to cancel their existing orders.³⁶ Garrett Morgan Jr. explains in a note in the Morgan papers that his father was the object of racial discrimination in the South.³⁷ In two letters, Garrett Morgan pointed to the racial prejudice he experienced that was related to the Lake Erie disaster. In the first incident, the Carnegie Hero Fund Commission reviewed the reports of heroism displayed during the disaster and decided to give the prestigious “Hero” award to a minor figure in the rescue effort who was white, rather than to Morgan. In his letter to the commission, Morgan presented evidence of his contributions and urged the members to overturn their decision, which he attributed to the racism in the coverage of the event by the local white press, which excluded his part in the heroic deeds.³⁸ A weekly black newspaper, the *Cleveland Gazette*, was the only newspaper to carry a picture of Morgan participating in the rescue. In a related letter to the mayor of Cleveland, who was a witness to the disaster and to the part that the Morgans played in the rescues, and in an interview with a local black newspaper, Morgan lamented that the mayor only acknowledged the brothers’ heroism belatedly and reluctantly because of their race.³⁹

Morgan’s awareness of the biased coverage of his invention in the press likely predated this public catastrophe. Evidence of his sophisticated appraisal of the lack of press coverage and other publicity for his invention that he, as a black person, was likely to receive was apparent much earlier. Even before the disaster, none of the newspaper reports about Morgan’s safety helmet, which would have been mainly directed to a white audience, mentioned his race. In stark contrast, the photograph of his rescue and recovery efforts in the Lake Erie disaster only appeared in literature intended for African American audiences. Advertisements prepared for publications that targeted black audiences, such as the *Cleveland Gazette*, displayed either a black model or an image of Morgan himself, and his photograph was carried in his campaign flyer for a seat on the city council in 1931. In addition to his qualifications for political office, Morgan emphasized his scientific prowess and the value of his invention for the public good in the flier he mailed out to

³⁶ Haber, *Black Pioneers*, 69.


³⁷ Garrett A. Morgan, Jr., Undated letter to Mr. Stang, Morgan papers. Morgan, Jr. also ascertains in this correspondence that Garrett Morgan Sr. also used the name George Mason as an alias.

³⁸ Letter to Carnegie Hero Fund Commission, ca. February 1917, folio I-2, and *Cleveland Advocate*, 29 July 1916, Garrett Morgan Papers, Western Reserve Historical Society Library, Cleveland, Ohio (hereafter, Morgan papers). Morgan and his supporters argued that the Carnegie medal for heroism should have been conferred on Morgan (and his brother) due to the dangerous and selfless nature of this act, a criterion for the medal.


³⁹ Letter to Mayor Harry L. Davis, 25 Oct. 1917, folio I-2, and interview in the *Cleveland Advocate*, 3 Feb. 1917, Morgan papers.

GARRETT A. MORGAN
Independent Candidate for Council, in the 3rd District

Clevelands' most honored and bravest citizen, saving the lives of Cleveland's working men, 5 miles out and 250 feet under the bottom of Lake Erie, in deadly poisonous gas and compressed air, at the Cleveland Water Works Crib Disaster, July 24, 1916. Inventor of one of the first Gas Masks used during the World War.

 **Elect Garrett A. Morgan to Council; one of the most Daring, Outstanding, Fearless and Courageous men for justice in the state.** *If elected I will try to lead the people of the 3rd District, to Equal Representation in the affairs of City Government.*

Any Voter in the 3rd District can vote FIRST CHOICE for GARRETT A. MORGAN, regardless of the Ward the voter lives in. Ignore the persons who approach you with a Marked Sample Ballot. Mark a FIGURE 1 in front of the name GARRETT A. MORGAN and you will be voting correctly. I Thank You.



Campaign Flyer, c.1931. (Reproduced by permission of the Western Reserve Historical Society, Cleveland, Ohio.)

his potential, mostly black, constituents. In that context, he was readily identifiable, and he applied the same methods to his publicity as his white contemporaries applied to theirs. The fact that he usually remained anonymous in the face of a discriminatory audience was one feature of the deliberate strategy he adopted; another other involved high- ← ? lighting his race when addressing a potentially sympathetic audience.

His identity was only revealed inadvertently in the aftermath of the tunnel explosion accident.⁴⁰

Personal Representation. Morgan faced a fundamental dilemma. On the one hand, he, like other inventor-entrepreneurs, needed to publicize his invention. He also needed to advertise by staging live demonstrations, the main advertising form of the day. Yet, African American inventors faced the threat of declining sales once their racial identity became known. How did Morgan solve this puzzle? Promotional materials and newspaper accounts suggest that he carefully crafted his image as a capable inventor for the press and the broader public in a way that enabled him to hide his skin color.

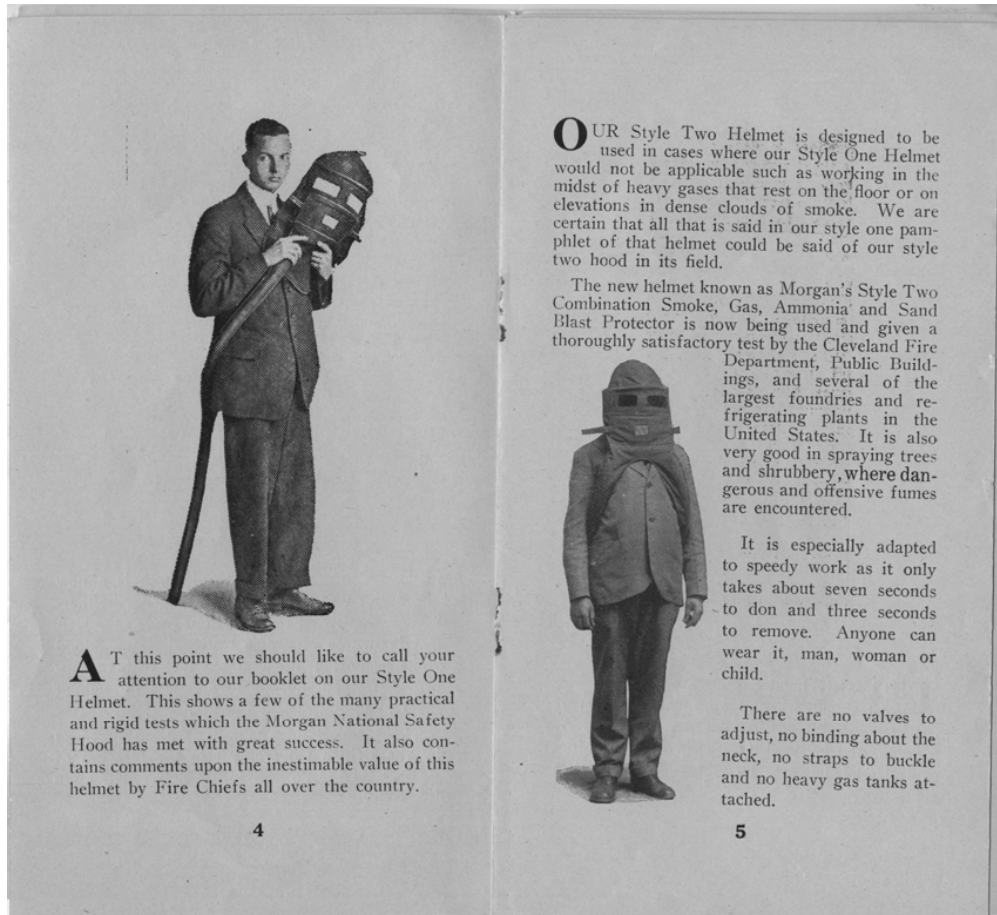
His demonstrations of the safety hood or helmet typically took the form of a live “road show,” comparable to the medicine shows common in the nineteenth and early twentieth centuries. The audiences comprised the general public, municipal fire departments, and city officials, including mayors. Morgan often donned a Native American costume and assumed the fictitious persona of Big Chief Mason, who, he claimed, was the actual inventor of the gas mask, and he identified himself as his own purported assistant, Garrett Morgan.⁴¹ In using Native American images to promote his invention, he made use of the common perception that Native Americans were experts in agricultural innovation, herbal medicines, shoe-making, and boat construction, exploiting the fact that Native American spokespersons were often used in medicine shows to sell elixirs, potions, and other “patent medicines.”⁴² In Alliance, Ohio, and New Castle, Pennsylvania, Morgan was known as George Mason.⁴³ Journalists’ accounts of those shows reported only the activities of a white man, since sales events conducted by a person who

⁴⁰ In the same year and following this event, Morgan created the *Cleveland Call* newspaper, which would become the most prominent and long-lived black newspaper in Cleveland. As the owner of a black newspaper, Morgan was very aware of issues related to objectivity and the power of press reporting.

⁴¹ Undated note from Garrett A. Morgan Jr. to Gordon Stang, Morgan papers. It was neither as easy nor as cheap then to do patent searches as it is now. Nevertheless, a curious member of the audience could have checked the name on the patent to refute “Big Chief Mason’s” claim of being the inventor of this technology.

⁴² One of the most successful medicine-show firms was the Kickapoo Indian Medicine Company, which is featured in Steward H. Holbrook’s *Golden Age of Quackery* (New York, 1962). Charles C. Mann, *1491: New Revelations of the Americas before Columbus* (New York, 2005), contains a summary and appraisal of Native American technological achievements. Further, the assumption by African Americans of a Native American identity was more widely used in American society as a way to circumvent new rules related to racial segregation. In 1901, Chief Charlie Tokohoma was slated to become a new second baseman for the Baltimore Orioles, but he was not allowed to proceed from practice to play officially as an Oriole following the revelation that he was actually Charlie Grant, an African American baseball player for Chicago’s “colored” professional baseball team, the Columbia Giants (John Steadman, “Had Tokohoma ruse worked, O’s would have set racial first,” *Baltimore Sun*, April 20, 1997).

⁴³ Alliance, Ohio, publication, dated 1 Oct. 1913, Morgan papers, and “Want Highland Avenue Paved,” *New Castle News* (Penn.), 13 Mar. 1914, col. 2, 13.



Safety Helmet Advertisement for Multiracial Readers, no date, c.1910s. (Reproduced by permission of the Western Reserve Historical Society, Cleveland, Ohio.)

was not white would have been news in themselves.⁴⁴ He also enlisted whites, sometimes but not always public-safety professionals, to stage demonstrations in southern cities. Charles P. Salan, the former director of Cleveland's public works, appeared in at least one show in New Orleans.⁴⁵ This evidence suggests a deliberate strategy to obtain favorable media coverage of his demonstrations. Extracts from positive write-ups were included in Nadsco's promotional material.

Similarly, in printed advertisements, Morgan meticulously crafted the publicity for his inventions, using smartly dressed white male models, thereby suggesting that the inventor and the user of the technology were similar.

⁴⁴ Although no photographs accompanied these articles, it is reasonable to assume that a white surrogate was employed for these shows.

⁴⁵ "About Morgan's National Safety Hood and Smoke Protector Spectacular Exhibit," *New Orleans Times-Picayune*, 22 Oct. 1914.

Apparently Morgan surmised that successful promotion hinged on anonymity. He used white associates as surrogates and either downplayed his race or did not mention it at all. Yet, by hiring white models to assume his identity, Morgan linked his inventions to an inventor—just not to himself.

Public Sponsorship. Sponsorship by, and partnerships with, prominent businessmen of other races formed another pillar of Morgan's advertising strategy.⁴⁶ It was not surprising that, as a new entrepreneur, he sought advice and financing from experienced and wealthy businessmen who were willing to support and promote his technology. Other prominent African American inventors, such as Elijah McCoy, Jan Matzeliger, and Granville T. Woods, and successful African American entrepreneurs like George Myers, a resident of Cleveland, attracted such partnerships. Unlike those forged by other inventors and businessmen, Morgan's partners were not invisible but were featured in his business correspondence and promotions as a means of advertising. The display of prominent names on the company's letterhead was apparently strategic. Listed as officers were the president, Victor W. Sincere, who was also the president of the Bailey Company, one of the largest department stores in Cleveland, and board member of the Cleveland Foundation, a leading civic organization; the vice president, William Ganson Rose, author, civic promoter, advertising executive, and manager of fairs and expositions; the secretary, Edgar A. Hahn, senior partner of a Cleveland law firm, elected official, and civic promoter; and the treasurer, Alexander L. Dreyfus, who was active in Jewish civic and social activities in Cleveland.⁴⁷ Morgan was listed below their names and identified as the company's general manager.⁴⁸ Based on the contents of several perfunctory business letters, it is evident that Morgan filled a role at Nadsco that was comparable to his position at his hair-care firm, the G. A. Morgan Hair Refining Company, where he was both general manager and

⁴⁶Of course, such alliances would not be unique to African Americans. Ross Thomson, *Structures of Change in the Mechanical Age: Technological Innovation in the United States, 1790–1865* (Baltimore, 2009), and Naomi Lamoreaux, Margaret Levenstein, and Kenneth Sokoloff, "Financing Invention during the Second Industrial Revolution: Cleveland, Ohio, 1870–1920," NBER Working Paper no. 10923 (Nov. 2004), demonstrate that social ties related to invention were fundamental to innovation.

⁴⁷*Encyclopedia of Cleveland History*, Case Western Reserve University, <http://ech.cwru.edu/ech/cgi/search.pl>, last accessed 10 Nov. 2009. Reports in the *Jewish Review and Observer* and *Jewish Independent* suggest that Dreyfus, Hahn, and Sincere were all actively involved in Jewish civic and social activities.

⁴⁸Various correspondence, Morgan papers. Three names listed as trustees on the letterhead. Since full names were not used, just initials and surnames, there were no unique match results. Clearly, the names of the officers mattered more than those of the trustees, since officers' names were printed in full.

president.⁴⁹ Beyond signaling the quality and scope of his business networks, the list of distinguished white people on the letterhead minimized the racial stigma associated with African American inventions. Morgan's image does not appear on this stationery. Although they did not appear in advertisements for Morgan's products, John D. Rockefeller and J. P. Morgan publicly praised his scientific achievements, no doubt adding to the overall success of his inventions.⁵⁰

Morgan's efforts to avoid any mention of race in his advertisements entailed incurring the costs of physically disguising himself and his associates, a strategy designed to improve the economic outcomes of all the parties; forming partnerships with whites; and seeking patents and patent-related services for his technology. While there were other plausible reasons for engaging in these efforts, the most obvious seem to have been forming a response to the growing discrimination against sellers and responding to the need to remain anonymous.

Patents. Finally, a unique feature of patents served as the foundation for Morgan's three-pillared strategy. Patents provided a number of features that allowed African Americans to be anonymous, and African American inventors often took advantage of them. Patents do not contain information on race, and patent documents were not easily accessible at the turn of the century. In the period preceding zip codes, which would have offered clues about the applicant's residential neighborhood, and thus its racial makeup, applicants were allowed to identify the municipal locations of their places of business in their patent applications, affording them a measure of anonymity. Patent agents and attorneys also had an incentive to conceal the identity of African American inventors, particularly serial inventors and applicants whose prior inventions had been profitable. Thus, along with his patent attorney, Morgan could benefit from the obscurity afforded by these documents to represent himself however he wished in his advertising.⁵¹

The collected papers contain advertisements for Morgan's other firms that were involved in a wide range of fields, including hair care and real estate. These ads, as expected, were very different from those promoting the safety helmet, as they were designed for African American consumers who would not have been expected to discriminate against an African American seller. The advertisement for the traffic

⁴⁹Correspondence, 10 May 1915, Morgan papers. Corresponding to the Safety Device Company stationery, the officers of the firm, Morgan family members, were listed in descending order. Unlike the organization of the Nadsco stationery, Garrett Morgan's name was listed first as president and general manager.

⁵⁰Bessie House-Soremekun, *Confronting the Odds: African American Entrepreneurship in Cleveland, Ohio* (Kent, Ohio, 2002), 24–25.

⁵¹In addition to the presence of a racially ambiguous name, the inability of readers of the patent record to locate Morgan geographically would have helped to ensure his anonymity.

light is similar to the one for the gas mask, in that it uses white models and Garrett Morgan's name does not appear on it.

Comparisons with Other Entrepreneurs

Did Morgan's contemporaries address the challenges that resulted from the spread of segregation and rising discrimination against sellers in a similar fashion? Evidence gleaned from the records of other inventor-entrepreneurs shows that they shared elements of Morgan's experience and responded in similar ways.

Like Morgan, Samuel Clayton Green developed a variety of business interests and sought intellectual property protection for an invention he would eventually manufacture. He patented a design for a sofa bed in 1902 and, with sixteen partners, formed the New Leonard Sofa Bed Company in Cleveland. Notably, all the stockholders and partners in Green's sofa-bed venture were black, whereas Morgan was the only black investor or partner among shareholders in his safety-device company.⁵² Eventually Green partly or wholly owned a lumber company, a laundry, a skating rink, a dance hall, a restaurant, the first African American theater in Cleveland, two pharmacies, and two real-estate companies, Acme Real Estate and Mohawk Realty. Rather than solely targeting black consumers, New Leonard marketed its sofa bed to people of all races. Like Morgan's advertisements, those for the sofa bed did not reflect the merchant's race. The publicity and the ads did not show people, either white or black, sitting on or using the sofa, although ads by many sofa companies did so at that time.

Allen Cole was another entrepreneur who was affected by increasing business segregation. In the 1920s, he was the only professional photographer in Cleveland who was black. He was also among the few photographers of the time who were advancing the science of photography, and he was reportedly the first photographer to develop tinted photos. In the increasingly hostile, racialized environment, he protected his firm from insolvency by becoming a subcontractor to white photography firms, rather than by selling directly to white consumers.⁵³

Cole's response to the rising tide of discrimination against sellers was to aim for anonymity by invoking a middleman and eliminating direct sales to the public. This strategy was similar to Morgan's use of middlemen, models, or fictitious characters for pitching his gas mask. Like Morgan and Green, Cole distanced himself from the end user and adopted anonymity.

⁵² Haber, *Black Pioneers*, 66.

⁵³ House-Soremekun, *Confronting the Odds*, 34–35.

Like Morgan—and contemporaries Henry Ford and Thomas Edison—Elijah McCoy and Granville T. Woods were inducted into the Inventors Hall of Fame.⁵⁴ However, even after carrying out extensive archival searches of newspapers, trade publications, and memorabilia, I was unable to find advertisements by either one. The few existing images are of either the inventor or the invention, but no images show McCoy and Woods together with their inventions, unlike Ford's and Edison's practice of including portraits of themselves with their inventions. Owing to the sparse evidence of their activities and the few existing financial and promotional records, we know little about the impact of discrimination on the innovative activities of these two prominent inventor-entrepreneurs. Nonetheless, Rayon Fouché reports that, when covering legal proceedings, white members of the press often assumed that Woods could not have been the inventor of his technologies, choosing instead to give his white competitors increasingly favorable coverage and thereby echoing Morgan's experience with the press after the Lake Erie disaster.⁵⁵ Woods's and McCoy's experiences suggest that they outsourced their publicity to patent agents and attorneys. Naomi Lamoreaux and Kenneth Sokoloff point out that patent agents and attorneys were emerging as the true intermediaries in the market for technology during this period, assuming a role that was partly marketing.⁵⁶ In examining patents, in 1917 Baker, mentioned the extraordinary difficulty of verifying African American patentees in his research, no doubt because, fearing racial discrimination, the intermediaries were determined to protect the inventors' racial identity. The evolving division of labor between inventors and their agents may have resulted in a positive unintended consequence for inventors seeking to minimize consumer discrimination. Their experiences, exemplified by those of Cole and Green, imply that there was a role for people who sheltered sellers' identities. Thus, Morgan's response to discrimination was not an unusual one among his African American contemporaries.

Conclusion

How did inventor-entrepreneurs respond to discrimination against sellers? Formal and informal bans on integrated economic activity in

⁵⁴ McCoy, Woods, and Morgan were inducted between 2001 and 2006.

⁵⁵ Rayon Fouché, *Black Inventors in the Age of Segregation* (Baltimore, 2005), 79. See this volume for a detailed description of the practice of segregation and its implications for Woods's inventive career.

⁵⁶ Naomi Lamoreaux and Kenneth Sokoloff, "Intermediaries in the U.S. Market for Technology, 1870–1920," in *Finance, Intermediaries, and Economic Development*, ed. Stanley L. Engerman et al. (Cambridge, U.K., 2003).

the late nineteenth and early twentieth centuries have been examined in order to determine how firms responded to discrimination by consumers. Using the records of inventor-entrepreneur Garrett Morgan, new data on African American firms and inventors, and secondary sources, I found that inventor-entrepreneurs who were negatively affected by consumers' racial prejudice, but who wished to operate in a racially diverse market, were able to do so because they could benefit from provisions for guarding sellers' anonymity. Garrett Morgan's advertising strategy entailed distancing himself from his invention, using surrogates and others to manipulate his identity, and collaborating with sponsors and partners of other races. The racial anonymity of patent records aided Morgan and other inventor-entrepreneurs in executing this strategy. Evidence from the Garrett A. Morgan papers collection also suggests that the extent to which there was interracial economic cooperation for the purpose of increasing trade has likely been underestimated and understudied. Blacks and whites apparently engaged in extensive formal and informal arrangements for relaxing the constraints imposed by segregation and created markets that might not have existed otherwise.

To be sure, this research cannot address certain questions, such as the precise relation between sales, or profitability, and advertising. Nonetheless, the historical evidence suggests that discrimination against sellers is not a new problem and that it has been countered over time by mechanisms for improving sellers' outcomes. Mechanisms like prices that automatically include tips in restaurants (*service compris*) or cabs, or voice-manipulation technology in the case of telephone marketing or other conversation, may diminish discrimination against sellers and increase trade and welfare today. Indeed, this finding would be consistent with recent empirical evidence related to sex-biased discrimination, like that uncovered by Claudia Goldin and Cecilia Rouse, who show that female candidates operating as independent contractors or sellers are more likely to be selected for symphony orchestras when auditions are "blind."⁵⁷

Future research on consumer discrimination and efforts to overcome it in business history may evolve along at least two dimensions. First, to the extent that they exist, the records and collections of African American inventor-entrepreneurs could be examined to discover whether techniques similar to Morgan's were widely employed by African American inventor-entrepreneurs and whether they varied by type of innovation. Correspondence between African American patentees

⁵⁷ Claudia Goldin and Cecilia Rouse, "Orchestrating Impartiality: The Impact of 'Blind' Auditions on Female Musicians," *American Economic Review* 90 (Sept. 2000): 715–41.

and their patent agents, attorneys, and other representatives or collaborators would be useful to uncover this information. Second, modern audit studies, such as that conducted by List in 2004, have also established that consumers have discriminated against a range of sellers. Is there an historical analogue of such behavior among other racial and ethnic groups and women? If so, how was it addressed? My preliminary review of the literature suggests that little historical evidence exists, and that recent literature focuses on the lack of attribution of inventions to ethnic minorities and women, rather than on the ways that inventor-entrepreneurs sought to ensure their anonymity. For example, prejudice against Italians was particularly pronounced during the period I cover here. Not until 2002, 113 years after his invention was registered, did an act of Congress bring about the recognition that Antonio Meucci, an Italian American, was the original inventor of the modern telephone, rather than Alexander Graham Bell.⁵⁸ Margi Hofer, Martin Eidelberg, and Nina Gray show that the most famous designs attributed to Louis Comfort Tiffany were in fact those of Clara Driscoll and the “Tiffany Girls.”⁵⁹ These examples suggest that there were similar trends in discrimination against sellers who were ethnic minorities and women, who had similar incentives to respond by hiding their identities. Much more research is required to ascertain the extent to which these situations occurred, to evaluate the responses to them, and to discover how comparable these groups’ responses were to those of African American inventor-entrepreneurs.

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LISA D. COOK is assistant professor in the Department of Economics and at James Madison College at Michigan State University. Her teaching and research interests include economic growth and development, financial institutions and crises, the economics of intellectual property rights, and economic history. She has published a number of articles, book chapters, and working papers, including “Inventing Social Capital: Evidence from African American Inventors, 1821–1930,” forthcoming in *Explorations in Economic History*, and her research has been funded by the National Science Foundation, the National Bureau of Economic Research/Gates Foundation, and the Economic History Association. She is currently on leave at the President’s Council of Economic Advisers.

⁵⁸ U.S. House of Representatives, 107th Congress, *Resolution 269*, 2002.

⁵⁹ Margi Hofer, Martin Eidelberg, and Nina Gray, *A New Light on Tiffany: Clara Driscoll and the Tiffany Girls* (London, 2007).