

Centering Black Women Inventors: Passing and the Patent Archive

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25 STAN. TECH. L. REV. 305 (2022)

ABSTRACT

This Article uses historical methodology to reframe persistent race and gender gaps in patent rates as archival silences. Gaps are absences, positioning the missing as failed non-participants. By centering Black women inventors and letting the silences fill with whispered stories, this Article upends our understanding of the patent archive as an accurate record of U.S. invention and reveals powerful truths about the creativity, accomplishments, and patent savviness of Black women and others excluded from the status of “inventor.” Exposing the patent system as raced and gendered terrain, this Article argues that marginalized inventors participated in invention and patenting by situational passing. Passing, while an act of creative adaptation, also entails loss. Individual inventors gave up the public status of inventor and often also the full value of their inventions to white men falsely identified as inventors on patent applications. This Article rewrites the legal history of the true inventor doctrine to include the unappreciated ways in which white men used false non-inventors to receive patents as a convenient form of assignment. Marginalized inventors adopted this practice, risking the sanction of patent invalidity, in order to avoid bias and stigma in the patent office and the marketplace. The Article

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analyzes patent passing in the context of the legacy of slavery and coverture that constrained marginalized inventors. The Article further argues that false inventors were used as a means of appropriating the inventions of marginalized inventors. Cumulatively, these practices amplified patent gaps, systematically overrepresenting white men in the patent archive and thus reinforcing the biases marginalized inventors sought to avoid. This intersectional analysis brings patent law into broader conversations about systemic racism and sexism and provides needed context to the current effort to close patent gaps.

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I. INTRODUCTION

Sometime during or before 1888, inventor Ellen Eglin reportedly sold the rights to her improved clothes-wringer to “an agent” for \$18. Eglin explained her decision in terms of racial politics: “You know I am black and if it was known that a [Black] woman patented the invention, white ladies would not buy the wringer.”¹ Eglin probably invented the wringer based on the expertise she had gained as a laundress, one of the limited number of occupations then available to Black women.² Keenly aware of the matrix of racism and sexism in which she lived, Eglin predicted that stigma and bias would hamper her ability to profit from her invention as a patentee and commercializer.³ Instead, she chose the certainty of a one-time sale of all rights. Eighteen dollars might have represented a month’s wages.⁴ It was far less than the “great financial success” the purchaser reportedly enjoyed.⁵

¹ *Colored Woman Inventor*, THE WOMAN INVENTOR (D.C.), Apr. 1891, at 3. Capitalization choices are original, alterations are made as noted to modernize language.

² See Max Peterson, *Who Invents and Who Gets the Credit?*, LEMELSON CTR. FOR STUDY INVENTION & INNOVATION BLOG, (June 25, 2019), <https://perma.cc/R5LP-VVX5> (identifying Eglin as domestic servant without supporting citation and noting that by 1900, Black women made up “large and growing proportion of domestic workers” whose duties included laundry); TERA W. HUNTER, TO ‘JOY MY FREEDOM: SOUTHERN BLACK WOMEN’S LIVES AND LABORS AFTER THE CIVIL WAR 26, 57-58 (1997) (describing limited job opportunities for Black women and noting laundry work was most typical domestic labor performed by Black women in Atlanta in 1880); see also A’LELIA BUNDLES, ON HER OWN GROUND: THE LIFE AND TIMES OF MADAM C.J. WALKER 45 (Scribner paperback ed. 2002) (citing laundress as most common occupation for employed Black women in St. Louis around 1889); W.E.B. DUBOIS, THE PHILADELPHIA NEGRO: A SOCIAL STUDY 98, 102-04 (Philadelphia, Ginn & Co. 1899) (noting anti-Black discrimination in urban hiring and that Black women in Philadelphia in 1896 most often worked as domestic servants); JULIET E. K. WALKER, THE HISTORY OF BLACK BUSINESS IN AMERICA: CAPITALISM, RACE, ENTREPRENEURSHIP 130-31 (1998) (noting frequency at which free Black women in North and South worked as laundresses before Emancipation).

³ Lisa D. Cook, *Overcoming Discrimination by Consumers During the Age of Segregation: The Example of Garrett Morgan*, 86 BUS. HIST. REV. 211, 216-18 (2012) (describing racial discrimination against sellers by consumers in late nineteenth and early twentieth centuries); ERVING GOFFMAN, STIGMA: NOTES ON THE MANAGEMENT OF SPOILED IDENTITY 5-10 (1963) (analyzing stigma as perceived traits of the individual). Stigma can trigger bias in others, either explicit or implicit. See also Mike Schuster, Evan Davis, Kourtney Schley & Julie Ravenscraft, *An Empirical Study of Patent Grant Rates as a Function of Race and Gender*, 57 AM. BUS. L.J. 281, 290-91 (2020) (analyzing relationship between implicit biases arising from stereotypes about the intellectual abilities of women and minorities and negative perceptions of invention quality).

⁴ DuBois, *supra* note 2, at 447 (wage averaged \$4 weekly); BUNDLES, *supra* note 2, at 46 (\$4-12 weekly).

⁵ *Colored Woman Inventor*, *supra* note 1.

This snippet of indirect evidence, mediated through a white woman's newspaper, is the sole known trace of Eglin's inventiveness.⁶ The patent office records, the only official archive of U.S. inventiveness, are silent with respect to Eglin's creativity, her understanding of the patent system as a means of commercialization, and her success in monetizing her invention.⁷ She is simply and completely absent.

Missing from patent records, Eglin and other inventors like her are discussed with respect to well-documented gaps in patent rates. These gaps measure the historic and persistent disparity in patents received between women and men and between white inventors and inventors with other racial identifications.⁸ She is one among the multitudes of missing in a patent archive

⁶ AUTUMN STANLEY, RAISING MORE HELL AND FEWER DAHLIAS: THE PUBLIC LIFE OF CHARLOTTE SMITH, 1840-1917, at 143 (2009) (discussing Charlotte Smith, founder and editor of the newspaper *The Woman Inventor*); Peterson, *supra* note 2 ("If it weren't for this brief article, Eglin's story would be completely lost.") Peterson conducted additional research on Eglin in consultation with a genealogy specialist. For possible traces of Eglin's life beyond this invention, see *infra* text accompanying note 17.

⁷ I use "archive" in its two related meanings to refer both to "a place in which public records or other important historic documents are kept" and to the records or documents that are intentionally preserved in such a place. *Archive*, n., OXFORD ENGLISH DICTIONARY ONLINE (Mar. 2022), <https://perma.cc/8DHB-3X5G>; see also Anthony W. Dunbar, *Introducing Critical Race Theory to Archival Discourse: Getting the Conversation Started*, 6 ARCHIVAL SCI. 109, 118 (2006) (defining "record" and noting that the record is "the foundational component" of an archive). The U.S. Patent Office has always been an archive in addition to a working office, serving as a site for storage of patent office records. Although some patent office records were moved to other facilities after creation of the National Archives in 1934, for convenience I refer to the "patent archive" as patent office records wherever located, including online. *National Archive History*, NAT'L ARCHIVE, <https://perma.cc/BZ4Q-YRTJ>. Patent office records—what has been intentionally preserved by patent bureaucrats—have varied over time. While patent records include patent prosecution files and interference filings, I concentrate on issued patents in this Article. Like all archives, the U.S. patent archive is "partial and incomplete . . . in terms of chronology and coverage" with "holes and missing pages" caused by changing policies, human error, and, most spectacularly, the U.S. Patent Office fire of 1836 that destroyed almost all patent records as of that date. Sarah Mills, *Cultural-Historical Geographies of the Archive: Fragments, Objects and Ghosts*, 7 GEOGRAPHY COMPASS 701, 703 (2013); KENNETH DOBYNS, *THE PATENT OFFICE PONY: A HISTORY OF THE EARLY PATENT OFFICE* 145 (2d ed. 2016) (describing loss of records in fire).

For reliance on patent records as the official archive of U.S. inventiveness, see, e.g., Petra Moser, *Patents and Innovation in Economic History*, in 2 RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW, 462-81 (Ben Depoorter, Peter Menell & David Schwartz eds., 2019) (summarizing scholarship using patents to study innovation); Jason Rantanen & Sarah E. Jack, *Patents as Credentials*, 76 WASH. & LEE L. REV. 311, 341-48, 355-56 (2019) (detailing ways "inventor" and "patent" are linked and describing patents as a historical record of invention); Nathan Reingold, *U.S. Patent Office Records as Sources for the History of Invention and Technological Property*, 1 TECH. & CULTURE 156, 156 (1960) (discussing the use of patent records to understand history of invention and technology).

⁸ For summaries of scholarship on gaps in patent registration, see ANDREI IANCU & LAURA A.

overwhelmingly recording the inventiveness of white men.⁹ One recent study called the current rate of patenting by Black Americans “dismal,” while another noted that while the gender gap in patents has been shrinking, at the current rate of change, gender parity would not be achieved for another 118 years.¹⁰ These gaps are appropriately the subject of a growing conversation about

PETER, U.S. PAT. & TRADEMARK OFF., *STUDY OF UNDERREPRESENTED CLASSES CHASING ENGINEERING AND SCIENCE SUCCESS: SUCCESS ACT OF 2018*, at 1-2, 27-29, 34 (2019); Miriam Marcowitz-Bitton & Emily Michiko Morris, *The Distributive Effects of IP Registration*, 23 STAN. TECH. L. REV. 306, 329-35 (2020); Allie Porter, *Where are the Women? The Gender Gap Within Intellectual Property*, 28 TEX. INTELL. PROP. J. 511, 511-15 (2020); see also sources cited *infra* notes 10-11. Note that I am using “women” and “men” to signify female-identified and male-identified individuals, and that gender and racial identifications of patentees is based on anecdotes and informed guesswork because the U.S. Patent Office has never collected that information. IANCU & PETER, *supra*, at 1-2; USPTO OFFICE OF CHIEF ECONOMIST, *PROGRESS AND POTENTIAL: A PROFILE OF WOMEN INVENTORS ON U.S. PATENTS*, at 13-15 (2019); cf. *Inventor Diversity for Economic Advancement Act of 2021 (“IDEA Act”)*, S. 632, 117th Cong. (2021) (requiring voluntary collection of demographic information of patent applicants). Note also that, both historically and at present, marginalized inventors may include not only Black Americans, but also Latinx, Asian and Indigenous peoples. See, e.g., Schuster et al., *supra* note 3, at 304-07 (examining 21st century patent grant rates as a function of White, Black, Asian, and Hispanic racial identifications); JESSICA MILLI, EMMA WILLIAMS-BARON, MEIKA BERLAN, JENNY XIA & BARBARA GAULT, INSTITUTE FOR WOMEN’S POLICY RESEARCH, *EQUITY IN INNOVATION: WOMEN INVENTORS AND PATENTS 5-6* (2016) (comparing White, Hispanic, Black, Asian/Pacific Islander, and other or mixed race patenting activity). Although my historical research to date does not allow me to incorporate the experiences of inventors with racial identities other than white or Black in this analysis, my silence is due to my incomplete reading of the archive, rather than their non-existence.

⁹ In studies of inventors and patents, Black women inventors are more missing than most. See J. Shontavia Johnson, Tonya M. Evans & Yolanda M. King, *Diversifying Intellectual Property Law: Why Women of Color Remain ‘Invisible’ and How to Provide More Seats at the Table*, LANDSLIDE, Mar.-Apr. 2018 (noting invisibility of women of color in IP); Kara W. Swanson, *Inventing the Woman Voter: Suffrage, Ability, and Patents*, 19 J. GILDED AGE & PROGRESSIVE ERA 559, 566-67 (2020) (noting that lists of Black inventors included very few women and lists of women inventors assumed universal whiteness) [hereinafter Swanson, *Inventing the Woman Voter*]. This absence has been noted in multiple aspects of law and history, as captured in the title of a pioneering Black Women’s Studies anthology, *ALL THE WOMEN ARE WHITE, ALL THE BLACKS ARE MEN, BUT SOME OF US ARE BRAVE: BLACK WOMEN’S STUDIES* (Gloria T. Hull, Patricia Bell Smith & Barbara Smith eds., 1982); see also Kimberlé Crenshaw, *Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics*, 1989 U. CHI. L.F. 139, 139 (1989) (noting the tendency to treat “race and gender as mutually exclusive categories of experience and analysis”); Evelyn Brooks Higginbotham, *Beyond the Sound of Silence: Afro-American Women in History*, 1 GENDER & HIST. 50, 50-52 (1989) (noting the absence of Black women in historical scholarship); Barbara Welke, *When All the Women Were White, and All the Blacks Were Men: Gender, Class, Race, and the Road to Plessy, 1855-1914*, 13 L. & HIST. REV. 261, 265, 265 n.12 (1995) (noting the absence of Black women in the legal history of Jim Crow).

¹⁰ Sarada Sarada, Michael J. Andrews & Nicolas L. Ziebarth, *Changes in the Demographics of American Inventors, 1870–1940*, 74 EXPLS. ECON. HIST. 101275, at 6 (2019); Alex Bell et al., *Who Becomes an Inventor in America? The Importance of Exposure to Innovation*, 134 Q.J. ECON. 647, 649 (2019).

increasing diverse participation in the U.S. patent system, important for both equity and innovation policy.¹¹

As crucial as these remedial efforts are, they also reinforce historical marginalization. Counting patents and noting underrepresentation considers the missing as occupying a negative space of loss and even “dismal” failure.¹² This Article uses a different perspective. Using historical methodology and centering Black women inventors, I resituate the patent gaps as archival silences to which we can and should listen in order to understand the U.S. patent system, past and present.¹³ To listen to archival silences is to attend

¹¹ See, e.g., IANCU & PETER, *supra* note 8, at 1 (explaining an ongoing project to quantify these gaps and consider legislative recommendations to reduce them); ELYSE SHAW & HALIE MARIANO, INST. FOR WOMEN’S POL’Y RSCH, TACKLING THE GENDER AND RACIAL PATENTING GAP TO DRIVE INNOVATION: LESSONS FROM WOMEN’S EXPERIENCES (2021) (proposing investment in child care and work-life balance supports, greater support for accelerator programs for women, and attention to systemic racial and gender bias); LAURA NORRIS, MARY FULLER, JOY PEACOCK & SYDNEY YAZZOLINO, SANTA CLARA UNIV. SCH. L., DIVERSITY IN INNOVATION BEST PRACTICES GUIDE (2021) (collecting best practices from U.S. companies); LISA D. COOK, BROOKINGS INST., POLICIES TO BROADEN PARTICIPATION IN THE INNOVATION PROCESS (2020) (proposing improved data collection, inclusive commercialization support, and improved workplace climate); Colleen V. Chien, *Increasing Diversity in Innovation by Tracking Women, Minority, and Startups Innovators that Patent and Supporting Experimentation in Inclusive Innovation*, SANTA CLARA UNIV. LEGAL STUD. RSCH. PAPER SERIES 01-19 (2019) (recommending USPTO steps to improve innovation participation); see also, e.g., W. Keith Robinson, *Artificial Intelligence and Access to the Patent System*, 21 NEV. L.J. 729, 753-58, 762-70 (2021) (describing increasing inaccessibility of patent system to small businesses, women and minorities and possibility of using artificial intelligence in patent examination to address problem); Colleen V. Chien, *The Inequalities of Innovation* EMORY L.J. (forthcoming 2022) (detailing multiple proposals for advancing equity in the patent system); Marcowitz-Bitton & Morris, *supra* note 8, at 363-69 (proposing an unregistered patent regime to assist marginalized inventors); Dan L. Burk, *Bridging the Gender Gap in Intellectual Property*, WORLD INTELL. PROP. ORG. MAG. (Apr. 2018), <https://perma.cc/GD9Y-MJTU> (considering IP gender gap from international perspective); Peter Lee, *Toward a Distributive Agenda for U.S. Patent Law*, 55 HOUS. L. REV. 321, 372-74 (2017) (urging USPTO to take steps to broaden participation in patent system); Dan L. Burk, *Diversity Levers*, 23 DUKE J. GENDER L. & POL’Y 25 (2015) (arguing that existing flexibility within patent system could increase participation in innovation).

¹² Sarada et al., *supra* note 10, at 6; see JENNIFER C. NASH, BIRTHING BLACK MOTHERS 35-39 (2021) (exploring how the racial gap in breastfeeding rates is “imagined and represented” not only as a numerical disparity but also a “desolate” material space that facilitates ignorance of Black women’s practices even as it evokes compassionate responses to close the racial gap).

¹³ In taking this approach, I draw upon scholarship using gender and race to analyze IP. For recent scholarship on IP and race, see, for example, Deidré A. Keller & Anjali S. Vats, *Critical Race Theory as Intellectual Property Methodology*, in HANDBOOK OF INTELLECTUAL PROPERTY RESEARCH: LENS, METHODS, AND PERSPECTIVES (Irene Calboli & Maria Lilla Montagnani eds., 2021); ANJALI VATS, THE COLOR OF CREATORSHIP: INTELLECTUAL PROPERTY, RACE, AND THE MAKING OF AMERICANS (2020); Kara W. Swanson, *Race and Selective Legal Memory: Reflections on Invention of a Slave*, 120 COLUM. L. REV. 1077, 1092 (2020) [hereinafter Swanson, *Race and Selective Legal Memory*]; Elizabeth L. Rosenblatt, *Copyright’s One-Way Racial Appropriation Ratchet*, 53 U.C. DAVIS L. REV. 591, 594 n.8 (2019) (contributing to and citing work on race and copyright); Anjali

consciously and carefully to what is not there and to be receptive to whispers that come around and through a formal archive, whispers that fill the silences with stories.¹⁴ Eglin's few reported words are one whisper that tells a story of a Black woman who found a way to contribute to U.S. invention and participate in the patent system.¹⁵

As Black feminist writer and educator Elise Johnson MacDougald noted almost a century ago, when discussing Black women, "one must have in mind

Vats & Deidré A. Keller, *Critical Race IP*, 36 *CARDOZO ARTS & ENT. L.J.* 735, 740 (2018) (listing groundbreaking work of scholars on race and IP). For a review of legal scholarship on IP and gender, see Kara W. Swanson, *Intellectual Property and Gender: Reflections on Accomplishments and Methodology*, 24 *AM. U.J. GENDER, SOC. POL'Y & L.* 175 (2015). I also follow in the footsteps of previous work centering Black women when considering IP. See, e.g., Toni Lester, *Oprah, Beyoncé, and the Girls Who "Run the World"—Are Black Female Cultural Producers Gaining Ground in Intellectual Property Law?*, 15 *WAKE FOREST J. BUS. & INTELL. PROP. L.* 538 (2015) (analyzing Black women as parties in copyright infringement cases); Yxta Maya Murray, *From Here I Saw What Happened and I Cried: Carrie Mae Weems' Challenge to the Harvard Archive*, 8 *UNBOUND: HARV. J. LEGAL LEFT* 1 (2013) (discussing controversy involving Black woman visual artist); Caroline Joan S. Picart, *Colloquium Proceedings: Critical Pedagogy, Race/Gender & Intellectual Property*, 48 *CAL. W.L. REV.* 493, 499-503 (2012) (analyzing property in choreography as a function of race and gender); K.J. Greene, *Intellectual Property at the Intersection of Race and Gender: Lady Sings the Blues*, 16 *AM. U.J. GENDER, SOC. POL'Y & L.* 365, 380-81, 385 (2008) (centering Black women Blues artists); see also Burk, *supra* note 11, at 29-34 (considering both race and gender biases in the patent system).

¹⁴ The metaphor of archival "silences" is a common means of acknowledging those whose experiences are not found in archives or are only recorded indirectly by others, an ongoing methodological challenge, particularly for historians of marginalized peoples. See, e.g., Brandon R. Byrd, *Addressing the Problem of the Archive in Afro-Diasporic History*, 46 *REV. AM. HIST.* 579, 580, 585 (2018) (discussing recent methodological approaches to the problem of the archive in Afro-diasporic history); Nan Goodman, *American Indian Languages and the Law of Property in Colonial America*, 5 *J.L. CULTURE & HUMANS.* 77, 79-80 (2009) (reading the silences of the archive regarding Indigenous property ownership by turning to extra-legal sources); see also Vivian M. May, *Anna Julia Cooper, Archival Absences, and Black Women's "muffled" Knowledge*, 40 *TULSA STUD. WOMEN'S LITERATURE* 241, 265 n.2 (2021) (analyzing the work of early Black feminist Anna Julia Cooper in addressing archival absence of the enslaved in relationship to recent work on reading archives). For another form of silence in patents, see Dan L. Burk, *Patent Silences*, 69 *VAND. L. REV.* 1603 (2016) (analyzing what patent applicants do not disclose). Recognizing that silences can be "perceived negatively as absence," and can arise for many reasons, I emphasize that I am focusing on silences "imposed . . . by the dominant culture" in ways that have prevented "voicing of minority experience." KING-KOK CHEUG, *ARTICULATE SILENCES: HISAYE YAMAMOTO, MAXINE HONG KINGSTON & JOY KOGEWA* 1, 3 (1993). I am grateful to Margaret Chon for this reference to the nuances of silence.

¹⁵ I use the word "story" in the sense that Eglin's story and others I discuss act as "narrative[s] in conversation with other narratives" from the patent record and other sources, continuing a long tradition of using stories to understand the functioning of law, particularly with respect to race. See, e.g., Charles R. Lawrence III, *Implicit Bias in the Age of Trump*, 133 *HARV. L. REV.* 2304, 2311-15 (2020) (explaining "story" as a methodological tool).

not any one [Black] woman, but rather a colorful pageant of individuals.”¹⁶ Eglin’s story is unique to her; her experiences and choices do not reflect all Black women inventors. It is tempting to expand her story by combining her quoted words from 1891 with traces from other archives—newspapers, government reports and census records. A patchwork of fragments could be read as a life history that begins with Eglin’s birth into enslavement in Maryland in 1836, continues with her work as a servant in Massachusetts, restores her to a reunited family of siblings in Washington, D.C., who pooled resources to make a life as free people, and ends with Eglin running a boarding house in her seventies.¹⁷ This story, though, is guesswork, combining information about

¹⁶ Elise Johnson McDougald, *The Double Task: The Struggle of Negro Women for Sex and Race Emancipation*, in *HARLEM’S GLORY: BLACK WOMEN WRITING, 1900-1950*, at 307, 307 (Lorraine Elena Roses & Ruth Elizabeth Randolph eds., 1996) (language modernized). For McDougald’s biography, see *id.* at 519.

¹⁷ In the 1880 census, I have found no “Ellen Eglins” in Washington, D.C. or Maryland, but a Black Ellen Eglin, born in Maryland, age 42, was counted in Fall River, Massachusetts, working as a servant. 10TH CENSUS, SCHEDULE 1, INHABITANTS IN FALL RIVER, MA, PAGE 11, SUPERVISOR DISTRICT No. 60, ENUMERATION DISTRICT No. 100 (1880). Further archival records refer to “Ellen F. Eglin,” whom some writers have identified (without supporting citation) as the inventor Eglin. See, e.g., OTHA RICHARD SULLIVAN, *AFRICAN AMERICAN WOMEN SCIENTISTS AND INVENTORS 7* (James Haskins ed., 2002) (identifying Ellen Eglin as Ellen F. Eglin). An Ellen F. Eglin, born in Maryland, was working as a charwoman (cleaner) in the Census Bureau for \$240.00/year in both 1891 and 1893. 1 J.G. AMES, OFFICIAL REGISTER OF THE UNITED STATES, CONTAINING A LIST OF THE OFFICERS AND EMPLOYÉS, IN THE CIVIL, MILITARY, AND NAVAL SERVICES ON THE FIRST OF JULY, 1891, at 768 (1892); 1 J.G. AMES, OFFICIAL REGISTER OF THE UNITED STATES, CONTAINING A LIST OF OFFICERS AND EMPLOYÉS, IN THE CIVIL, MILITARY, AND NAVAL SERVICES ON THE FIRST OF JULY, 1893, at 789 (1893). Cf. SULLIVAN, *supra*, at 11 (describing Eglin as “clerk” in census office). If this is the same woman quoted in *The Woman Inventor*, she probably was grateful for the reliable work and increased salary government employment offered, even as she was employed in a menial capacity. One hint that Ellen F. Eglin, charwoman, was also Ellen Eglin, Black woman inventor, is that Charlotte Smith, who reported on Eglin’s invention, also worked to get women jobs as charwomen in government offices. STANLEY, *supra* note 6, at 137. In the censuses of 1900 and 1910, Ellen F. Eglin (born in Maryland in 1836, race identified as Black in the census of 1900) is listed as living in a house at 1929 11th St. N.W. in Washington, D.C., with relatives and lodgers, respectively, which might mean the inventor Eglin was born in the time of slavery; was 52 at the time of her invention; and lived first in Washington, D.C. with family and later took in boarders to support herself. 12TH CENSUS, SCHEDULE 1 – POPULATION, DISTRICT OF COLUMBIA, SUPERVISOR’S DISTRICT No. 1, ENUMERATION DISTRICT No. 53, SHEET No. 21 (1900); 13TH CENSUS, POPULATION, DISTRICT OF COLUMBIA, EIGHTH PRECINCT, ENUMERATION DISTRICT No. 153, SHEET No. 1 (1910). In 1896, Ellen F. Eglin had inherited one-third of the estate of her brother Charles, of the same address, including, it seems, ownership of at least part of the house, because in 1909 she sued to set aside a deed conveying the house. *Says Promise Wasn’t Kept*, EVENING STAR (D.C.), Nov. 26, 1909, at 8. In his will, Charles noted that Ellen F. (and another sister) “were dependent on their own labor for support.” Will of Charles Eglin (Aug. 1, 1896) (on file with author). We might guess that Ellen was born enslaved because other traces of “Charles Eglin” suggest that he was born enslaved, was claimed as property by “John H. Thomas,” fought for the Union in the Civil War as a volunteer from Maryland in the U.S. Colored Troops, and worked as a day laborer in Washington, D.C. after the war, carting and hauling goods. See Freedman’s

“Ellen Eglins” that might be the inventor Eglin and might be one or more other women.

Yet we can be sure that Eglin, like all Black women inventors, shared the experience of moving through the world while Black and female.¹⁸ Eglin’s contemporary, Black feminist and educator Anna Julia Cooper—whose own unique experience included enslavement in North Carolina and a doctoral degree from the University of Paris-Sorbonne—famously wrote that “[o]nly the BLACK WOMAN can say [that] ‘when and where I enter . . . then and there the whole . . . *race enters with me.*’”¹⁹ Centering Black women inventors harnesses the power of intersectionality not only to understand their experiences, but also to explore race and gender gaps in patent rates into which the experiences of other marginalized racial and gender identities have disappeared, including white women and Black men.²⁰ Collecting whispers to understand experiences not my own, I expand our discussion of patent gaps from dismal failure into an exploration of the unappreciated adaptation, agency, and accomplishment of marginalized inventors.²¹

Bank, Record for Charles Eglin, No. 822 (June 14, 1867) (on file with the National Archives and Records Administration, Freedman’s Bank Records, 1865-1874) (listing master’s name); Freedman’s Bank, Record for Charles Eaglin, No. 16067 (July 21, 1873) (on file with the National Archives and Records Administration, Freedman’s Bank Records, 1865-1874) (listing siblings including Ellen and Annie); L. ALLISON WILMER, J.H. JARRETT & GEO. W.F. VERNON, HISTORY AND ROSTER OF MARYLAND VOLUNTEERS, WAR OF 1861-65, vol. 2, 225 (1898-99) (listing Charles Eglin under enlisted men of the Nineteenth Regiment Infantry); ANNUAL REPORT OF THE ATTORNEY GENERAL OF THE UNITED STATES 46 (1882) (listing fees paid to Charles Eglin for carting); ANNUAL REPORT OF THE ATTORNEY GENERAL OF THE UNITED STATES 148 (1888) (listing fees paid to Charles Eglin for hauling).

¹⁸ DAINA RAMEY BERRY & KALI NICOLE GROSS, A BLACK WOMEN’S HISTORY OF THE UNITED STATES 4 (2020) (noting that Black women’s history needs both to include “all kinds of Black women” and attend to the “near-universal experience with respect to how the world views” Black women).

¹⁹ ANNA JULIA COOPER, A VOICE FROM THE SOUTH 4, 26 (DocSouth Books ed. 2017) (1892) (capitalization and emphasis original); see Cathryn Bailey, *Anna Julia Cooper: “Dedicated in the Name of My Slave Mother to the Education of Colored Working People”*, 19 HYPATIA, Spring 2004, at 56, 57 (describing Cooper’s wartime birth to an enslaved mother in Raleigh, North Carolina).

²⁰ In centering Black women inventors, I am (like so many others) following the methodology of Crenshaw, *supra* note 9, at 139-40 (advocating for centering Black women as a tool of Black feminist critique of both racism and sexism). See also PAULA J. GIDDINGS, WHEN AND WHERE I ENTER: THE IMPACT OF BLACK WOMEN ON RACE AND SEX IN AMERICA 345 (First Quill ed. 1996) (noting Black women’s activism “may be said to have provided the means to free everyone” and that “[t]he progress of neither *race nor womanhood* could proceed without” the Black woman); Ethel L. Mickey & Laurel Smith-Doerr, *Gender and Innovation Through an Intersectional Lens: Re-Imagining Academic Entrepreneurship in the United States*, 16 SOCIO. COMPASS e12964, 1, 3 (2022) (calling for intersectional study of inequality in innovation).

²¹ See Lester, *supra* note 13, at 10 (noting that critical IP scholarship has focused on harm to marginalized groups rather than successes).

This exploration upends our understanding of the patent archive itself. United States patent law has restricted patent protection to the “true inventor” since the Patent Act of 1790.²² Enforced by the sanction of patent invalidity, this bedrock principle has persisted even as the law and context of invention have changed.²³ It is the basis for what has been called the “deep-rooted, historical veracity” of patents as a record of who has invented.²⁴ Redefining Eglin as a patent-savvy businesswoman rather than an inventor who failed to use the patent system, I argue that her sale of patent rights was a form of passing.

Eglin and other inventors marginalized by racial and/or gender identity interacted with the patent system through strategies that hid their identity and, sometimes, their very existence. Exercising agency within the constraints of racism and sexism, they allowed others to claim inventor status in their stead, risking patent invalidity in a clear-eyed calculus that considered the biases of white ladies buying laundry equipment and of patent examiners deciding who was capable of invention. In pursuit of profit, they adapted existing patent practices and assimilationist strategies, choosing paths that allowed themselves to disappear from the patent records, replaced by white male false inventors.

²² Patent Act of 1790, ch. 7, § 5, 1 Stat. 109-112 (repealed 1793).

²³ Patent Act of 1793, ch. 11, § 3, 1 Stat. 318-323 (repealed 1836) (repealing and replacing Patent Act of 1790 and retaining true inventor limitation); 35 U.S.C. § 115 (original version Patent Act of 1952) (requiring oath or declaration of the inventor(s) as part of patent application, subject only to narrow exceptions when the inventor(s) is unavailable). The procedures to enforce the true inventor requirement most recently changed in 2011. Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29 215 Stat. 284 (2011); 35 U.S.C. §§ 135, 291 (derivation proceedings and derived patents); Eric Ross Cohen, *Clear as Mud: An Empirical Analysis of the Developing Law of Joint Inventorship in the Federal Circuit*, 28 BERKELEY TECH. L.J. 383, 383 (2013); Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. B.J. 435, 496 (2012) (explaining legislative purpose of derivation proceedings to ensure true inventor). For changing context of invention, see, for example, Liza Vertinsky, *Boundary-Spanning Collaboration and the Limits of Joint Inventorship Doctrine*, 55 HOUS. L. REV. 401, 443 (2017); Peter Lee, *Social Innovation*, 92 WASH. U.L. REV. 1 (2014); Sean B. Seymore, *My Patent, Your Patent or Our Patent – Inventorship Disputes within Academic Research Groups*, 16 ALB. L.J. SCI. & TECH. 125 (2006); Rochelle Dreyfuss, *Collaborative Research: Conflicts on Authorship, Ownership, and Accountability*, 53 VAND. L. REV. 1159, 1211-13 (2000) (all arguing that patent law fails to recognize the collaborative nature of much modern research); see also David L. Schwartz & Max Rogers, *Inventorless Inventions? The Constitutional Conundrum of AI-Produced Inventions*, 35 HARV. J.L. & TECH. (forthcoming 2022); Susan Y. Tull & Paula E. Miller, *Patenting Artificial Intelligence: Issues of Obviousness, Inventorship, and Patent Eligibility*, 1 J. ROBOTICS, A.I. & L. 313, 317-19 (2018); Ryan Abbott, *I Think, Therefore I Invent: Creative Computers and the Future of Patent Law*, 57 B.C.L. REV. 1079 (2016); Ben Hattenbach & Joshua Glucoft, *Patents in an Era of Infinite Monkeys and Artificial Intelligence*, 19 STAN. TECH. L. REV. 32 (2015); Liza Vertinsky & Todd M. Rice, *Thinking About Thinking Machines: Implications of Machine Inventors for Patent Law*, 8 B.U.J. SCI. & TECH. L. 576 (2002) (all discussing true inventor requirement in context of artificial intelligence as source of inventions).

²⁴ Rantanen & Jack, *supra* note 7, at 318.

As archivist Rachel E. Winston has noted, “effective silencing does not require a conspiracy, or even a political consensus—its roots are structural [and found in systems] of oppression, sexism, and global anti-Blackness.”²⁵ The result of their decisions made within structural constraints has been an archive riddled with uncountable false inventors, systematically hiding the inventiveness and patent participation of Black women, Black men, and white women.

Passing, “a deception that enables a person to adopt certain roles or identities from which he would be barred by prevailing social standards in the absence of his misleading conduct,” is a proven strategy of marginalized people in the United States, and includes, among other forms, passing for alternate racial and gender identities, both in-person and remotely—sometimes situationally or temporarily, and sometimes permanently.²⁶ It can be both a painful self-denial and a sometimes condemned yet rational choice in constrained circumstances.²⁷

The existence of patent system passing unsettles our assumptions about the true inventor. Centering the Black woman inventor forces a consideration of when, how, and why patent system participants might deliberately flout inventorship doctrine. Taking Eglin seriously as an inventor and businesswoman led me to reexamine the legal history of the true inventor and expose the unappreciated ways in which white men, as both inventors and investors, used false inventors to receive patents in the early decades of the patent system. They were not seeking to pass, but rather using false inventors as an informal

²⁵ Rachel E. Winston, *Praxis for the People: Critical Race Theory and Archival Practice*, in *KNOWLEDGE JUSTICE: DISRUPTING LIBRARY AND INFORMATION STUDIES THROUGH CRITICAL RACE THEORY* 283, 284 (Sofia Y. Leung & Jorge R. López-McKnight eds., 2021) (noting tendency for Black women to be “consistently underrepresented” in archives).

²⁶ Randall Kennedy, *Racial Passing*, 62 *OHIO ST. L.J.* 1145, 1145, 1150-51 (2001); Elaine K. Ginsberg, *Introduction: The Politics of Passing*, in *PASSING AND THE FICTIONS OF IDENTITY* 1-14 (Elaine K. Ginsberg ed., 1996); see also ALLYSON HOBBS, *A CHOSEN EXILE: A HISTORY OF RACIAL PASSING IN AMERICAN LIFE 19-20* (2014) (describing “racial passing in the American context . . . as a subset of a much larger phenomenon” including women passing as men, Jews as Gentiles, gays as straight, Chinese as Mexican); Jerry Kang, *Cyber-Race*, 113 *HARV. L. REV.* 1130, 1180 (2000) (identifying racial passing in cyberspace); Khaled A. Beydoun, *Acting Muslim*, 53 *HARV. C.R.-C.L. L. REV.* 1, 15 (2018) (concealing Islamic affiliation as strategic passing); Andrew Tae-Hyn Kim, *Immigrant Passing*, 105 *KY. L.J.* 95, 129 (2016) (providing examples of passing including trans for cis, deaf for hearing, gay for straight); *PASSING: IDENTITY AND INTERPRETATION IN SEXUALITY, RACE AND RELIGION* (Maria Carla Sanchez & Linda Schollsberg eds. 2001) (exploring passing in gender, race and religious contexts).

²⁷ Cheryl Harris, *Whiteness as Property*, 106 *HARV. L. REV.* 1707, 1711-12 (1993); see also HOBBS, *supra* note 26, at 4, 15 (characterizing racial passing as loss); Mary Church Terrell, *Why, How, When and Where Black Becomes White*, in *HARLEM’S GLORY: BLACK WOMEN WRITING, 1900-1950*, at 56-57, 63 (Lorraine Elena Roses & Ruth Elizabeth Randolph eds. 1996) (condemning racial passing); Kennedy, *supra* note 26, at 1157-86 (analyzing condemnation of racial passing).

means of ownership assignment. True inventors agreed to falsely name an investor as an inventor on an application to ensure investor ownership of the resulting patent. I argue that in the hands of marginalized inventors, this practice, which I call “assignment by patent,” became a strategy of passing. Replacing a stigmatized identity with a white male identity as the named inventor facilitated the movement of the invention through the patent system and into the marketplace, while the true inventor vanished. Inventors like Eglin weighed the risk of patent invalidity against the inability to obtain or commercialize a patent in their own name, creating a new calculus that sometimes favored passing by false inventor. Each act of passing falsified the patent archive as a record of inventors, creating a systematic overrepresentation of white men.

Passing in the patent system, while an act of creative adaptation and an assertion of agency that deserves recognition, also entailed multiple losses. Eglin, for example, received only a small portion of her invention’s evident commercial value and also lost the expressive value of claiming her own creativity via a patent.²⁸ Eglin reportedly recognized that loss of recognition, sharing her plans to exhibit and patent another invention in her own name so that “the invention will be known as a [B]lack woman’s.”²⁹ Despite those plans, there is no known patent issued to Eglin.

In the silences of the patent archive, there are whispers of deeper losses, of inventors who lost all remuneration as well as attribution. The history of false inventors includes the theft of creativity from enslaved Black Americans and from marginalized inventors post-Emancipation. I argue that when marginalized inventors sought to patent their inventions in their own names, the raced and gendered terrain of the patent system hampered their fight against such appropriation.³⁰ Their difficulties in proving they were true inventors were multiplied by the passing of other marginalized inventors. The

²⁸ Jeanne Fromer, *Expressive Incentives in Intellectual Property*, 98 VA. L. REV. 1745, 1771-73, 1779 (2012) (describing relation of invention to selfhood and arguing that individuals need both pecuniary and expressive incentives to create).

²⁹ *Colored Woman Inventor*, *supra* note 1 (capitalization modernized). Note that Eglin also reportedly stated that she had “money to push it [the new invention] after the patent is issued to me.” *Id.* If Eglin was the Ellen F. Eglin employed at the Census Bureau in 1891, the money might have been the result of a steady income from government employment, as discussed *supra* note 17.

³⁰ For an exploration of the patent system as racialized terrain from the perspective of inventions rather than inventors, see, for example, Shubha Ghosh, *Race-Specific Patents, Commercialization, and Intellectual Property Policy*, 56 BUFF. L. REV. 409 (2008); and Jonathan Kahn, *Race-ing Patents/Patenting Race: An Emerging Political Geography of Intellectual Property in Biotechnology*, 92 IOWA L. REV. 353 (2007).

resulting false truths of the patent archive reinforced existing biases that only white men possessed inventiveness.

The project of closing the patent gaps is a project of inviting marginalized inventors to claim the status of true inventor. In order to do so, it is crucial to appreciate the new truths taught by the archival silences and to recognize the history of false truths we have left unquestioned. Listening to the silences reveals a legacy of accomplishment that speaks back to narratives of failure. To recognize the false truths is to understand how their harmful consequences stretched from the individual, to the community, to the nation. I argue that only with this understanding can we effectively recognize and fight the biases and inequality that have been hidden in the patent gaps. The simple truth, grasped by Eglin, is that “inventor” should be an inclusive category in both our understanding of the long history of U.S. invention and in the contemporary patent system.

To reconsider the patent archive and the status of “inventor” by centering Black women inventors, I begin in Part II with Eglin’s story, analyzing it as a story of passing that requires a reexamination of the true inventor doctrine. I argue that, during the early decades of the patent system, uncertainty about who might meet the statutory requirement of “true inventor” allowed the white men who were the near-exclusive users of the patent system to develop the practice of assignment by patent, as non-inventors sought patents with the permission of the true inventor as a convenient means of assigning ownership rights. I uncover historic evidence that the practice continued among white inventors and businessmen throughout the nineteenth century, even as the true inventor doctrine strengthened. In Part III, I reexamine assignment by patent from the perspective of Black women inventors, arguing that marginalized inventors like Eglin faced a different calculus of risk when they considered how best to profit from their inventiveness and adapted the practice of assignment by patent as a form of situational passing. I contrast Eglin’s story with those of other marginalized inventors to understand how those with Black male and white female identities also used race and gender passing, investigating their motives and strategies. In Part IV, I consider the nonconsensual use of false inventors to steal the inventions of marginalized inventors, a practice with roots in slavery. I argue that, cumulatively, patent system passing via white male false inventors made it easier for other white men to succeed at what I call “appropriation by patent,” that is, claiming an invention by falsely and nonconsensually filing a patent application as the true inventor. In Part V, I demonstrate the truths and falsehoods that this analysis

has exposed and the consequences, individual and communal, that cascade to the present.

II. DEFINING THE TRUE INVENTOR

Eglin's story of invention appeared in a short-lived newspaper, *The Woman Inventor*, published by Charlotte Smith, a self-supporting white woman who was a tireless campaigner for women's economic independence.³¹ To Smith, who was interested in invention as a means for women to support themselves and who repeatedly prodded the U.S. Patent Office to issue a list of all female patentees, Eglin's story might have been one of loss and theft.³² Eglin lost her attribution rights as inventor by not patenting in her own name and suffered a theft of value, accepting \$18 for an idea worth much more. Eglin, evidently the source of the information that her wringer was eventually a "great financial success," also had tallied her losses.³³ Yet taking Eglin's words seriously, we can additionally recognize her story as demonstrating agency and patent-savviness in the context of systemic racism and sexism. Adapting the strategy of passing that helped Black enslaved women free themselves and exploiting the white male practice of assignment by patent, Eglin chose to act through an agent in order to maximize her profits, allowing her invention to pass into the marketplace seemingly as the result of white ingenuity.³⁴ Eglin's decisions were both constrained and strategic. One result of her choices was that, if her clothes wringer was patented, her identity was replaced in the patent archive by the owner of the patent rights who submitted an application falsely claiming to be the inventor.³⁵

³¹ STANLEY, *supra* note 6, at 9-12, 143.

³² Charlotte Smith, *Why I Became Interested in Woman Inventors*, *THE WOMAN INVENTOR* (D.C.), Apr. 1891, at 2; STANLEY, *supra* note 6, at 142-45 (describing Smith's repeated efforts appealing to the Commissioner of Patents and to Congress). The list was published as U.S. PATENT OFFICE, *WOMEN INVENTORS TO WHOM PATENTS HAVE BEEN GRANTED BY THE UNITED STATES GOVERNMENT: 1790 TO JULY 1, 1888* (D.C., U.S. Government Printing Office 1888); U.S. PATENT OFFICE, *WOMEN INVENTORS TO WHOM PATENTS HAVE BEEN GRANTED BY THE UNITED STATES GOVERNMENT: JULY 1, 1888, TO OCTOBER 1, 1892: APPENDIX NO. 1* (D.C., U.S. Government Printing Office 1892); U.S. PATENT OFFICE, *WOMEN INVENTORS TO WHOM PATENTS HAVE BEEN GRANTED BY THE UNITED STATES GOVERNMENT: OCTOBER 1, 1892, TO MARCH 1, 1895: APPENDIX NO 2* (D.C., U.S. Government Printing Office 1895).

³³ *Colored Woman Inventor*, *supra* note 1.

³⁴ BERRY & GROSS, *supra* note 18, at 42-44 (describing how enslaved women used clothing to pass as free Blacks while escaping enslavement).

³⁵ There were over fifty patents to clothes wringers granted in the United States between Jan. 1, 1881, and Dec. 21, 1891 (based on Google patent search). The limited historical record

To understand the raced and gendered use of false inventors, we need to examine the legal history of the true inventor doctrine. While the true inventor doctrine appears to be unshakeable bedrock, supported by the continued use of “true inventor” as an explicit statutory requirement since 1790, a historical investigation reveals that the interpretation of this requirement was unclear and unsettled for decades. This early unclarity, used by some of the most powerful white men in the United States to facilitate patent grants to non-inventors, fostered assignment by patent as a way of allocating patent ownership. The practice of using non-inventors as patent applicants was sufficiently convenient that it persisted among white male patent system participants for at least a century.

B. The True Inventor Requirement

The current settled law that valid patents can issue only to correctly identified inventors appears unsurprising and inevitable. Limiting patents to true inventors has strong intuitive appeal. Patent treatise author Donald Chisum opines that “it would be morally offensive to allow one to harvest what another has sown” by granting patents to non-inventors.³⁶ There is also a logical relationship between the restriction and the preferred justification for the patent system. The incentive theory of intellectual property, heavily critiqued but enshrined in the Constitution, suggests that the reward of a patent should be granted only to those whose behavior we want to incentivize, that is, inventors.³⁷

of Eglin’s invention does not allow any present determination whether it was included among these issued patents. *See* Peterson, *supra* note 2. While some have claimed that the American Wringer Company exploited Eglin’s invention, they have done so without citing any evidence and the claim may have arisen due to a photograph of an American Wringer in Peterson, *supra* note 2. *See, e.g.*, Mickey and Smith-Doerr, *supra* note 20, at 3 (repeating the story without substantiation and erroneously calling Eglin the “first registered Black woman inventor in the United States”); *see also* Rebecca Tapscott, *Eighteen Dollars for Her Patent: Ellen Eglin and the Story of the Clothes-Wringer*, IPWATCHDOG (Feb. 22, 2021), <https://perma.cc/D7VK-BRBE> (identifying U.S. Patent No. 459,343 (issued Sept. 8, 1891) to Cyrenus Wheeler, Jr. of Auburn, N.Y., as Eglin’s invention without supporting evidence); Marjorie Charlot, *Ellen Eglin [Clothes Wringer]*, HERSTORIE (May 30, 2017), <https://perma.cc/6KZZ-SQ3R> (identifying U.S. Patent No. 459,343 as Eglin’s invention without supporting evidence).

³⁶ DONALD S. CHISUM, CHISUM ON PATENTS: A TREATISE ON THE LAW OF PATENTABILITY, VALIDITY AND INFRINGEMENT § 2.01 (2020).

³⁷ U.S. CONST., art. I, § 8, cl. 8 (granting Congress the power to issue patents to “promote the progress” of the “useful arts”). For critiques of the incentive theory, *see, e.g.*, MADHAVI SUNDER, FROM GOODS TO A GOOD LIFE: INTELLECTUAL PROPERTY AND GLOBAL JUSTICE 25-30 (2012).

This perspective facilitates a static understanding of the “true inventor” as one of the few unchanging aspects of the patent system during initial decades of legislative experimentation and further decades of the corporatization of invention and patenting.³⁸ From 1790 to the present, there has been a statutory limit restricting patents to inventors, coupled with a means of invalidating patents wrongly granted to non-inventors. For the first half-century of the U.S. patent system, any member of the public could seek judicial cancellation of a patent obtained “surreptitiously, or upon false suggestion.”³⁹ Although the cancellation remedy was repealed in 1836, the law continued to require inventors to swear an oath that they believed themselves to be the “original . . . inventor.”⁴⁰ Non-inventors who swore falsely might have their status exposed via an interference proceeding in the patent office, a process to determine the first and true inventor when more than one applicant claimed the same invention.⁴¹ Or they might find themselves facing a defense of invalidity when asserting their patent against an alleged infringer.⁴²

In the Patent Act of 1952, the most recent full reenactment of patent law, Congress explicitly stated that one who “did not himself invent the subject

³⁸ See sources cited *supra* note 23. *But see* ERIC S. HINTZ, *AMERICAN INDEPENDENT INVENTORS IN AN ERA OF CORPORATE R&D* (2021) (tracing the persistence of independent inventors from 1890 to 1950).

³⁹ Patent Act of 1793, ch. 11, § 10, 1 Stat. 318 (repealed 1836); Patent Act of 1790, ch. 7, § 5, 1 Stat. 109 (repealed 1793) (using slightly different wording of “surreptitiously by, or upon”); *see* Christopher Beauchamp, *Repealing Patents*, 72 VAND. L. REV. 647, 660-61 (2019) (discussing use of judicial cancellation process for “wrongful misrepresentations” as well as lack of novelty); *see also* Mark A. Lemley, *Why Do Juries Decide if Patents are Valid?*, 99 VA. L. REV. 1673, 1693 (2013) (discussing cancellation for “fraud” or, in contemporary language, “inequitable conduct”). Note that judicial cancellation was supplemented after 1793 by an interference proceeding to determine the first and true inventor among interfering applications. Patent Act of 1793, ch. 11, § 9, 1 Stat. 318-323 (Feb. 21, 1793) (repealed 1836).

⁴⁰ Patent Act of 1836, ch. 357, § 6, 5 Stat. 117; 35 U.S.C. § 115(b)(2) (oath requirement); *see also* 35 U.S.C. § 100(f) (“‘inventor’ means the individual or . . . individuals . . . who invented or discovered the subject matter of the invention”); 35 U.S.C. § 116 (joint inventorship rules).

⁴¹ 35 U.S.C. § 135 (pre-AIA). Note that in the case of joint inventions, interferences could be between groups of inventors to determine the first and true inventive entity. *See, e.g.*, *Sewall v. Walters*, 21 F.3d 411, 415 (Fed. Cir. 1994) (describing interference as an “originality contest”); *Applegate v. Scherer*, 332 F.2d 571, 573 n.1 (1964) (noting that interfering applications can result “when one applicant gets the invention from the other”). Interference proceedings have been available since 1793, although initially they included only pending applications, whereas after 1952 they might also include issued patents. William C. McCoy, Jr., *Resolution of Conflicting Claims to Intellectual Property*, 9 CLEV.-MARSHALL L. REV. 57, 57 (1960). As discussed *infra* text accompanying note 46, the AIA replaced interference proceedings with derivation proceedings.

⁴² *See, e.g.*, *Cumberland Pharm. Inc. v. Mylan Institutional LLC*, 846 F.3d 1213, 1218 (Fed. Cir. 2017) (evaluating alleged infringer’s assertion that the patent was invalid based on the patentee’s derivation of the invention from its originator).

matter sought to be patented” was not entitled to a patent.⁴³ The true inventor requirement has also led to an elaborate and confounding set of rules and procedures to ensure that, in cases involving co-invention, all but also only true inventors are named in patent applications.⁴⁴ While over time Congress and the courts have reduced the risk of sanctions by providing opportunities to correct inadvertent errors in naming inventors, deliberate falsification remains grounds for rendering the patent unenforceable.⁴⁵ The America Invents Act of 2011 (AIA) eliminated interference proceedings but simultaneously created new derivation proceedings to prevent awarding patents to those who “derived” the invention from its original inventor and continued the inventorship oath requirement.⁴⁶ Commentators have consistently reiterated that the Act did not change the true inventor requirement.⁴⁷

Through these changes, the law on the books has remained clear: U.S. patents require identification of the true inventor as part of the patent application, a requirement enforced by potential loss of any patent granted to a false inventor. It has thus been easy to assume that patent system participants

⁴³ 35 U.S.C. § 102(f) (pre-AIA); P.J. Federico, *Commentary on the New Patent Act*, 75 J. PAT. TRADEMARK OFF. SOC'Y 161, 163 (1993 [1954]) (describing 1952 Act as the first rewriting of the Patent Act since the Patent Act of July 8, 1870, c. 230, 16 Stat. 198); see also Edward G. Greive, *The Doctrine of Inventorship: Its Ramifications in Patent Law*, 17 W. RES. L. REV. 1342, 1344, 1346 (1966) (noting that patents applied for by non-inventors are void under the 1952 Act).

⁴⁴ See, e.g., *Mueller Brass Co. v. Reading Indus.*, 352 F. Supp. 1357, 1372 (E.D. Pa. 1972), aff'd without opinion, 487 F.2d 1395 (3d Cir. 1973); David A. Roth & Jerome E. Luecke, *The Misjoinder and Nonjoinder Pitfall*, 49 J. PAT. OFF. SOC'Y 219, 219 (1967) (describing the consequences of errors as “extremely serious”); Michael N. Meller, *Editorial*, 7 AM. INTELL. PROP. L. ASS'N Q.J. 90 (1979) (“inventorship is an issue that has long defied full understanding” and caused “monumental” “difficulties”); W. Fritz Fasse, *Muddy Metaphysics of Joint Inventorship: Cleaning Up After the 1984 Amendments to 35 U.S.C. § 116*, 5 HARV. J.L. & TECH. 153, 153 (1992); Cohen, *supra* note 23, at 384.

⁴⁵ Patent Act of 1952, 35 U.S.C. § 256 (providing for correction of errors in inventorship); Matthew G. Sipe, *Patent Law's Philosophical Fault Line*, 2019 WIS. L. REV. 1033, 1067-69 (2019); Cohen, *supra* note 23, at 397-407 (describing the changing interpretation of doctrine over time); *PerSeptive Biosystems v. Pharmacia Biotech*, 225 F.2d 1315 (2000) (invalidating a patent for deliberative falsification of inventorship).

⁴⁶ 35 U.S.C. § 115(b)(2) (outlining the oath of inventor that they are “original inventor”); *id.* §§ 135, 291 (outlining the derivation proceedings). See Charles L. Gholz, *A Critique of Recent Opinions in Patent Interferences and Derivation Proceedings*, 97 J. PAT. TRADEMARK OFF. SOC'Y 57, 66 (2015) (comparing pre-AIA derivation interferences with AIA derivation proceedings). Note that as of 2012, an assignee or “someone who shows sufficient proprietary interest” may “make an application for patent,” thereby becoming the “applicant,” despite not being the “inventor.” 35 U.S.C. § 118; 37 C.F.R. 1.42(a).

⁴⁷ *Matal*, *supra* note 23, at 496 (2012) (describing a committee report outlining derivation proceedings’ intent to ensure that “the first person to file the application is actually the true inventor”); Joshua D. Sarnoff, *Derivation and Prior Art Problems with the New Patent Act*, 2011 PATENTLY-O PATENT L.J. 11 (2011).

in the past, like those in the present, sought to abide by the requirement and designate only originators as inventors in patent applications.⁴⁸ The historical practice of assignment by patent is a form of the law in action that has been overlooked, buried under the detailed and continuous law on the books that appeared to preclude any such practice.

Yet a careful historical examination reveals that non-inventors knowingly applied for and received patents during the first century of the patent system and well into the second, repeatedly claiming the status of true inventor when they had received permission from the originator to file a patent application. This tradition was what Eglin and other marginalized inventors borrowed to facilitate passing in the patent system. White men were able to develop the practice of assignment by patent because the true inventor requirement was surprisingly malleable in the first decades of the patent system. In the early republic period, patent system participants pushed for interpretations that are now excluded from patent law, including patents of importation and assignment by patent. At the outset, it was neither obvious nor inevitable that the law would limit true inventors to originators.

C. *Patents of Importation*

In 1790, as Congress contemplated creating a federal patent law, the legislators did so with knowledge of British patent practice, American colonial patents, and state patents granted under the Articles of Confederation.⁴⁹ These earlier patent systems had been concerned with identifying new *inventions*, rather than originating minds.

⁴⁸ B. Zorina Khan, “Not for Ornament”: Patenting Activity by Nineteenth-Century Women Inventors, 31 J. INTERDISC. HIST. 159, 164 (2000) (arguing that because patents to false inventors are void, it is “far more likely that an undeserving male was listed as a co-inventor on the patent [in the nineteenth century], rather than as the sole inventor”). Cf., e.g., Rivka Monheit, *The Importance of Correct Inventorship*, 7 J. INTELL. PROP. L. 191, 191-192, 224, 226 (1999) (detailing possible sanctions and the need for careful analysis of inventorship by practitioners); Cohen, *supra* note 23, at 413 (describing the need for counsel to plan in order to avoid inventorship errors); and David Hricik, Alexandra Geczi, & Zachary Thomas, *Save a Little Room for Me: The Necessity of Naming as Inventors Practitioners Who Conceive of Claimed Subject Matter*, 55 MERCER L. REV. 635 (2004) (discussing the need for attorneys to pay careful attention to inventorship rules).

⁴⁹ See, e.g., OREN BRACHA, *OWNING IDEAS: THE INTELLECTUAL ORIGINS OF AMERICAN INTELLECTUAL PROPERTY, 1790-1909*, at 15-31 (2016); EDWARD C. WALTERSCHEID, *TO PROMOTE THE PROGRESS OF THE USEFUL ARTS: AMERICAN PATENT LAW AND ADMINISTRATION, 1787-1836*, at 9-13 (1998); BRUCE W. BUGBEE, *THE GENESIS OF AMERICAN PATENT AND COPYRIGHT LAW* 60-83, 84-103 (1967); Frank D. Prager, *Historical Background and Foundation of American Patent Law*, 5 AM. J. LEG. HIST. 309 (1961); Camilla A. Hrdy, *State Patent Laws in the Age of Laissez Faire*, 28 BERKELEY TECH. L.J. 45 (2013).

In England, patents for inventions had their origins as one type of *letters patent*, that is, a public document memorializing an exclusive grant from the sovereign to a petitioner.⁵⁰ If the petitioner promised to introduce a new industry, through an unknown method of making glass or dyeing fabric, for example, the sovereign was not concerned whether the petitioner was the originator of the new method, but only whether the petitioner was offering something new to the kingdom.⁵¹ British law used the description “first and true inventor,” but interpreted it to include first introducers.⁵²

Such patents of importation were a means of bringing new industries to the polity, something the early American republic desperately needed. President George Washington urged Congress in his first annual address to pass a patent law that would encourage not only domestic invention but also “the introduction of new and useful inventions from abroad.”⁵³ First Secretary of the Treasury Alexander Hamilton and his assistant Tench Coxe strongly advocated for such use of the federal patent system, continuing colonial and state patent practice.⁵⁴ Assuming Congress would follow Washington’s recommendation, Coxe made plans to apply for a patent to Englishman Richard Arkwright’s weaving technology that was revolutionizing British textile mills, seeking to be the first introducer.⁵⁵

Congress, however, refused to endorse patents of importation explicitly, either in 1790, when it passed the first patent act, or thereafter.⁵⁶ Some legislators worried that granting patents to importers would exceed the limits of Congress’ constitutional power to grant exclusive rights to “inventors.”⁵⁷ This view was not shared by Washington, who had been present at the

⁵⁰ *Patent*, adj., OXFORD ENGLISH DICTIONARY ONLINE (Mar. 2022), <https://perma.cc/Y9D9-L8AB> (definitions I.1.a and II.4.a). After the Statute of Monopolies of 1623, patents for invention were granted as an exception to the general prohibition of such royal grants of favor. CHRISTINE MACLEOD, *INVENTING THE INDUSTRIAL REVOLUTION: THE ENGLISH PATENT SYSTEM, 1660-1800*, at 1, 14-15 (2002 [1988]).

⁵¹ MACLEOD, *supra* note 50, at 11-12; BUGBEE, *supra* note 49, at 14-15, 27-35.

⁵² English Statute of Monopolies of 1623, 21 Jac. 1 c. 3, § 6; *Edgeberry v. Stephens*, 2 Salk. 447, 1 Abbott’s P.C. 8 (K.B. 1691); WALTERSCHEID, *supra* note 49, at 94-95; *see also* BUGBEE, *supra* note 49, at 57-59 (describing patents granted to importers in the North American colonies).

⁵³ President George Washington, First Annual Address to Congress (Jan. 8, 1790).

⁵⁴ Doron Ben-Atar, *Alexander Hamilton’s Alternative: Technology, Piracy, and the Report on Manufactures*, 52 WM. & MARY Q. 389, 399, 403-04 (1995).

⁵⁵ Anthony F.C. Wallace & David J. Jeremy, *William Pollard and the Arkwright Patents*, 34 WM. & MARY Q. 404, 410-11 (1977).

⁵⁶ WALTERSCHEID, *supra* note 49, at 14-15, 95-97, 110-111, 121-41 (detailing rejection of explicit approval of patents of importation).

⁵⁷ *Id.* at 126.

Constitutional Convention.⁵⁸ Yet Congress also borrowed the “first and true inventor” phrasing from British law, known to include introducers. What followed was a period of confusion about the scope of “true inventor” in U.S. law, as powerful men pushed to get patents of importation recognized.

Aided by Coxe, Secretary of State Thomas Jefferson, and Secretary Hamilton, immigrant weaver George Parkinson obtained a patent to aspects of the Arkwright weaving technology, as did another immigrant Englishman, William Pollard.⁵⁹ Jefferson, who had earlier participated in an attempt to smuggle English weaving machines into the United States so they could be copied and used, was now co-administrator of the patent system.⁶⁰ Jefferson interpreted the statutory language broadly in granting these patents to Arkwright’s inventions to Parkinson and Pollard, immigrants who came to the United States with expertise in the new technology.⁶¹

Despite this initial use of the expansive British meaning of “true inventor,” in the following decades, the courts took a narrower view, refusing to interpret the U.S. patent law to include patents of importation.⁶² Justice Joseph Story, an influential early patent jurist, concluded by 1833 that there was a constitutional requirement that U.S. patents be issued only to originating minds, solidifying an American understanding of “true inventors” that excluded introducers.⁶³ His interpretation became part of settled U.S. law.⁶⁴

⁵⁸ *Id.*

⁵⁹ Ben-Atar, *supra* note 54, at 390 n.1; Wallace & Jeremy, *supra* note 55, at 406-08, 410-11, 414.

⁶⁰ Wallace & Jeremy, *supra* note 55, at 410 (describing earlier effort).

⁶¹ Note that Jefferson had earlier suggested that the Constitution be amended to limit “[m]onopolies” only to persons for “their own” inventions. Letter from Thomas Jefferson to James Madison (Aug. 28, 1789) (on file with the National Archives, Madison Papers), reprinted in *To James Madison from Thomas Jefferson, 28 August 1789*, NAT’L ARCHIVES, <https://perma.cc/FU54-N65C>; Edward C. Walterscheid, *The Nature of the Intellectual Property Clause: A Study in Historical Perspective (Part I)*, 83 J. PAT. & TRADEMARK OFF. SOC’Y 763, 770-71 (2001) (citing letter as evidence that Jefferson believed that the constitutional language permitted patents of importation); see also WALTERSCHEID, *supra* note 49, at 176 n.89 (arguing that Coxe removed his name from Parkinson’s patent petition because he believed the petition sought an invalid patent of importation).

⁶² *Reutgen v. Kanowrs*, 20 F. Cas. 555, 556 (C.C.D. Pa. 1804) (No. 11,710) (instructing the jury that if an immigrant patentee was not the “original inventor,” he “is not entitled to a patent”); *Livingston v. Van Ingen*, 9 Johns. 507, 520, 546-47 (N.Y. 1812) (finding that a claim “not founded on original invention” cannot receive a federal patent but can receive a state patent).

⁶³ 3 JOSEPH STORY, COMMENTARIES ON THE CONSTITUTION OF THE UNITED STATES § 1148 (Boston, Hilliard, Gray & Co. 1833); F.D. Prager, *The Influence of Mr. Justice Story on American Patent Law*, 5 AM. J. LEGAL HIST. 254, 254, 254 n.1 (1961).

⁶⁴ See, e.g., 1 WILLIAM C. ROBINSON, THE LAW OF PATENTS FOR USEFUL INVENTIONS 522 (Boston, Little

D. Assignment by Patent

The eventual consensus that “inventor” excluded introducers from the patent system did not resolve another area of uncertainty regarding the true inventor requirement that arose out of the relationship among inventors, patentees, and owners. The Patent Act of 1790 stated that if the “patentee” was not the “first and true inventor,” anyone could seek repeal of the patent as “surreptitiously” obtained.⁶⁵ That provision seemed clear enough: no false inventors as patentees. That is, non-inventors, who obtained a patent to an invention originated by someone else, were not “true inventors” and thus vulnerable to repeal of their rights. For those lawfully holding patents, though, the Act provided that they could transfer all or part of their ownership interest in a patent. Non-inventors who were “executors, administrators or assigns” of a patent could receive damages for infringement.⁶⁶ Issued patents were intended to be transferable property that could be inherited, devised, assigned, sold, and licensed.⁶⁷

Congress further formalized patent transfer in 1793 by adding the requirement that the “inventor, his executor or administrator” record any assignment of ownership, which would allow the assignee to “stand in the place of the original inventor both as to right and responsibility, and so the assignees of assigns to any degree.”⁶⁸ Such centralized record keeping, like a land registry, enhanced the value of patent property by clarifying ownership and protecting bona fide purchasers.⁶⁹ In 1836, when Congress created the first formal patent

Brown 1890), as discussed *infra* text accompanying notes 97-100; Monheit, *supra* note 48, at 191 and Vertinsky, *supra* note 23, at 436 (each arguing that the true inventor requirement is a constitutional requirement). Cf. Schwartz & Rogers, *supra* note 23, at 14-19, 25-28 (arguing that the meaning of “inventors” in the Constitution includes non-originators).

⁶⁵ Patent Act of 1790, ch. 7, § 5, 1 Stat. 109-112 (repealed 1793).

⁶⁶ *Id.*

⁶⁷ 35 U.S.C. § 261; Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC, 138 S. Ct. 1365, 1375, 1377 (2018) (interpreting § 261 to find that patents are a “specific form of property right” by interpreting the constitutional language “against the backdrop” of the eighteenth-century English patent system).

⁶⁸ Patent Act of 1793, ch. 11, § 4, 1 Stat. 318-23 (repealed 1836).

⁶⁹ Stuart J.H. Graham, Robert P. Merges, Pam Samuelson & Ted Sichelman, *High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey*, 24 BERKELEY TECH. L.J. 1255, 1274 n.60 (2009) (comparing modern patent recording system to land deed registry); see also Robert P. Merges, *The Hamiltonian Origins of the U.S. Patent System, and Why They Matter Today*, 104 IOWA L. REV. 2559, 2572-77 (2019) (developing other comparisons between patent system and early federal General Land Office). Note that patent registration pre-dated the federal General Land Office, created in 1812. JERRY L. MASHAW, *CREATING THE ADMINISTRATIVE CONSTITUTION: THE LOST ONE HUNDRED YEARS OF AMERICAN ADMINISTRATIVE LAW* 123-127 (2012).

office and inaugurated the modern patent examination process, it also added a recording fee and specified that patentees had the ability to assign “every patent,” “either . . . the whole interest, or any undivided part thereof” and to grant “the exclusive right . . . to make and use . . . throughout any specified part or portion of the United States.”⁷⁰

By use of the term “patentee” and discussions of “every patent,” these early laws neither precluded nor addressed the possibility that an inventor might come to a contractual arrangement to share ownership *before* becoming a patentee, perhaps even before filing a patent application. An early investment agreement could provide needed funds for building models to perfect an invention and/or the costs of an application. An investor who advanced money in exchange for full or partial ownership of the resulting patent had good reason to want to be a patentee or joint patentee, so that their ownership rights would be recognized automatically when the patent issued, rather than depending on execution and filing of an assignment agreement by the inventor-patentee sometime in the future.

Interpreting the Patent Act of 1793, several courts suggested that such a path to patent ownership might be allowable, expanding the interpretation of “true inventor” to include assignees. “Standing in the place of the original inventor . . . as to right,” an assignee of invention ownership rights could perhaps apply for a patent as sole inventor or as a co-inventor. In 1817, for example, the circuit court of Pennsylvania upheld a jury verdict of damages for infringement of “a patent to Guppy and Armstrong, granting them an exclusive right to Perkins’s invention” as assignees, and finding that “the patent was regularly granted.”⁷¹ This wording suggests that Guppy and Armstrong sought and received the patent with Perkin’s consent, although due to a fire in the U.S. Patent Office in 1836 which destroyed almost all early patent records, it is not possible to confirm that Guppy and Armstrong were named as inventors.⁷² More definitely, in 1821, the same judge, Bushrod Washington, held that “it is not a defence [to an action for infringement] that the plaintiff was not himself the original projector of the improvement, if the patent was taken out with the

⁷⁰ Patent Act of 1836, ch. 357, § 11, 5 Stat. 117, *amended by* Patent Act of 1839, ch. 88, § 8, 5 Stat. 353-55.

⁷¹ *Gray v. James*, 10 F. Cas. 1019, 1021 (C.C.D. Pa. 1817) (No. 5719).

⁷² *Patent Office*, REGISTER OF DEBATES, Vol. 13, 24th Cong. 2d Sess., App. at 233 (1837) (reporting on the Patent Office fire and finding “[e]verything belonging to the office was destroyed”).

knowledge and assent of the original projector and not in fraud of his right.”⁷³ Judge Washington agreed with the patentee’s attorney that it was not “surreptitious” for the patentee to obtain a patent in his own name for an invention by another, as long as the actual inventor “expressly or impliedly” gave permission for the patentee to take on “the trouble and expense of obtaining a patent.”⁷⁴ Assignment by patent at the patent application stage, rather than through the later filing of a separate assignment agreement after patent grant, was permissible, allowing non-inventors to claim the role of “true inventor.”

Although these opinions do not reference copyright law, during these same decades, courts interpreted the copyright statute to allow, in some circumstances, those who financed creative works to be recognized as “authors” with the right to register copyrights and own them without separate assignment agreements.⁷⁵ Congress’s power to grant copyright to “authors” rested on the same constitutional clause as the power to grant patents to “inventors.”⁷⁶ These contemporaneous copyright cases bolstered the plausibility of the Pennsylvania court’s interpretation.

Lawyer Peter A. Browne, writing a series of magazine articles presenting “mechanical jurisprudence” to would-be inventors popularized this interpretation.⁷⁷ Browne explained in 1827 that “[i]t would seem, that *the inventor, or discoverer, may transfer his right, before a patent issued, and the assignee may take out a patent.*”⁷⁸ Ten years later, experienced patent litigator Willard Phillips agreed that at least some courts countenanced the practice of

⁷³ WILLARD PHILLIPS, *THE LAW OF PATENTS FOR INVENTIONS* 66 (Boston, American Stationers’ Co. 1837) (citing *Dixon v. Mayor*, C.C.U.S.Pa. Apr. 1821, *Coxe’s Digest*, ¶123 (p. 532)). Note that, in 1821, there was no official reporter for Pennsylvania nor any case report devoted to federal decisions. Until West Publishing began reporting federal decisions in 1880 and then began to publish its versions of pre-1880 cases in 1894, lawyers relied on unofficial reports to understand the law. ERWIN C. SURRENCY, *A HISTORY OF AMERICAN LAW PUBLISHING* 70 (1990). In other early reports, the defendant’s name was spelled “Moyer.” See sources cited *infra* note 74.

⁷⁴ *Dixon v. Moyer*, 1 Robb 324, 327 (1821) (describing arguments of counsel for each party); see *Dixon v. Moyer*, 7 Cas. 758, 759 (1821) (version published in a later West reporter drawing from the Robb (1821) and Wash. (1826-29) reporters).

⁷⁵ CATHERINE L. FISK, *WORKING KNOWLEDGE: EMPLOYEE INNOVATION AND THE RISE OF CORPORATE INTELLECTUAL PROPERTY, 1800-1930*, at 138-53, 220-26 (2009).

⁷⁶ U.S. CONST., art. I, § 8, cl. 8.

⁷⁷ Peter A. Browne, *Mechanical Jurisprudence No. XVI, On the Law of Patents for New and Useful Inventions*, 3 FRANKLIN INST. J. & AM. MECH.’S MAG. 296 (May 1827).

⁷⁸ *Id.* at 299.

an assignee taking out a patent as the inventor.⁷⁹ Phillips bolstered his conclusion by citing Judge Washington's decisions.⁸⁰ Given how few patent disputes resulted in published case reports, these opinions suggest that the practice of using this pathway to patent ownership may have been common and uncontroversial.⁸¹ In his summary of patent law as of 1837, Phillips cited no decisions to the contrary.

Taking advantage of the lack of clear statutory guidance about pre-issuance assignment, participants in the patent system created a practice of assignment by patent to serve their purposes. As long as the inventor(s) had given consent to the transfer of their right to the party/parties named as inventor(s) on the application, participants did not consider such designation of the assignee as the inventor as "surreptitious" or otherwise fraudulent. Such persons could be, in these circumstances, "true inventors." The practice rested on an assumption that this sort of non-inventor, while admittedly not the originator, was not acting "in fraud" of the inventor's right. They remained true to the inventor's wishes, unlike someone making a false and *nonconsensual* claim to be an inventor in an attempt to defraud the original inventor.

Such an expansive interpretation of the statutory language "true inventor" and what constituted "surreptitiously, and upon false suggestion" was plausible, given the absence of statutory language to the contrary and the evolving law of authorship in copyright law.⁸² It allowed any non-fraudulent holder of the inchoate pre-patent rights to an invention, whether as originator or assignee, to claim inventor status in ways that supported the aims of inventors and investors. Despite these early court decisions, however, expanding "inventor" to include non-inventor owners did not become the accepted interpretation of the statute. Phillips, for example, remained unpersuaded. He advised his readers that "whatever may have been held or intimated or implied to the contrary," this reading of the patent laws was

⁷⁹ PHILLIPS, *supra* note 73, at 67; CHARLES WARREN, A HISTORY OF THE AMERICAN BAR 457-58 (1911) (indicating that Phillips appeared as principal counsel on a large proportion of U.S. patent cases between 1835 and 1845); 1 WILLIAM T. DAVIS, BENCH AND BAR OF THE COMMONWEALTH OF MASSACHUSETTS 281 (Boston, Boston History Co. 1895) (detailing Phillips's credentials and career).

⁸⁰ PHILLIPS, *supra* note 73, at 67 (citing *Dixon v. Mayor*; and *Reutgen v. Kanowrs*, 1 Wash. C.C.R. 168, 20 F. Cas. 555, 555 (C.C.D. Pa. 1804) (No. 11710)).

⁸¹ Christopher Beauchamp, *First Patent Litigation Explosion*, 125 YALE L.J. 848, 853-55 (2016) (noting the rapid increase in patent cases, although not necessarily in reported decisions, after 1840).

⁸² See generally Patent Act of 1790, ch. 7, 1 Stat. 109-112 (repealed 1793); Patent Act of 1793, ch. 11, 1 Stat. 318-323 (repealed 1836).

wrong.⁸³ A patent “can be taken out only on the application and oath and in the name of the inventor himself, or the inventors themselves.”⁸⁴ Courts should not, according to Phillips, ratify assignment by patent.

Congress eventually agreed. In 1837, Congress amended the Patent Act of 1836 to provide that “any patent hereafter to be issued may be made and issued to the assignee or assignees of the inventor.”⁸⁵ This new ability filled the loophole that had made investors anxious. Assignments were to be allowed before a patent was granted and an investor-assignee could receive the patent directly, rather than relying on the future cooperation of the inventor(s). There were two requirements for non-inventor owners to receive the patent. First, the assignment from the inventor(s) had to be recorded with the patent office before issuance and, second, the application needed to be “duly made, and the specification duly sworn to by the inventor.”⁸⁶ Non-inventor owners could become *patentees*, but they would not be recognized as *inventors*.⁸⁷ No matter when the inventor’s rights were assigned, the step of a formal assignment could not be skipped over and any assignment needed to be on record in the office or bureaucrats would follow their usual procedure of issuing patents to the named inventor.⁸⁸ Congress further encouraged assignments by dropping the assignment recording fee in 1839.⁸⁹

The early attempt to make law on the ground by the consensual practices of inventors and investors had seemingly failed. Assignee-owners were not within the legal definition of “true inventor.” When George Ticknor Curtis, another successful patent attorney, published a patent treatise in 1849, he no longer saw unclarity or misguided courts.⁹⁰ He agreed “that the person or persons entitled to receive a patent can only be the inventor or inventors of the

⁸³ PHILLIPS, *supra* note 73, at 68.

⁸⁴ *Id.*; see also *Analysis of Law of Patents*, 1 AM. J. IMPROVEMENTS USEFUL ARTS, & MIRROR PAT. OFF. 27 (Jan., Feb., Mar. 1828) (swearing the inventor’s oath when another person “has made the discovery” is perjury).

⁸⁵ Patent Act of 1836, ch. 357, § 6, 5 Stat. 117.

⁸⁶ *Id.*

⁸⁷ This distinction between patentees and inventors persists today. See 35 U.S.C. §§ 115, 118 (requiring an oath of original inventor while allowing filing by assignee in certain instances).

⁸⁸ SCHUYLER DURYEE, *ASSIGNMENTS OF PATENT RIGHTS: A DIGEST OF DECISIONS OF FEDERAL AND STATE COURTS AND THE COMMISSIONER OF PATENTS, TOGETHER WITH THE LAWS AND FORMS* 63 (Baltimore, Press of Isaac Friedenwald 1886) (citing Havemeyer, Elder & Loosey, 1870 Dec. Comm’r Pat. 5).

⁸⁹ Patent Act of 1836, ch. 357, § 11, 5 Stat. 117 (amended 1839). In 1870, Congress reimposed the fee requirement. Patent Act of 1870, ch. 230, § 67, 16 Stat. 198-217 (repealed 1952).

⁹⁰ GEORGE TICKNOR CURTIS, *A TREATISE ON THE LAW OF PATENTS FOR USEFUL INVENTIONS* (Boston, Little, Brown & Co. 1849); 1 *HISTORY OF THE BENCH AND BAR OF NEW YORK* 289-90 (David McAdam, et al., eds., New York City, N.Y. History Co. 1897) (summarizing Curtis’s career).

thing proposed to be patented,” noting the refusal to acknowledge patents of importation and the difference from English law on this point.⁹¹ If an investor or employer “having employed and paid for the inventive faculty of another,” wished to be the “patentee,” Curtis explained, they might “claim and hold a patent for the invention,” but “not as the inventor.”⁹² The courts by mid-century also agreed that “patentee” included “any person having a right to a patent,” whether inventor-owner or assignee, but that assignees were not inventors.⁹³

The Supreme Court finally ruled on the practice of consensual assignment by patent in 1888. In *Kennedy v. Hazelton*, it considered a patent granted to an assignee who had applied in their own name as the “alleged inventor.”⁹⁴ The Court held that the resulting patent was “unauthorized by law and void” as “applied for by one who is not the inventor” and thus the patent “confers no rights as against the public.”⁹⁵ Here, then, were the consequences of consensual assignment by patent. The patent was not only unenforceable against infringers but also void, conferring “no title or right” on anyone that could be transferred or otherwise exploited.⁹⁶

By the time William Robinson, professor of law at Yale University, published his influential three-volume patent treatise in 1890, he explained the true inventor requirement with reference to the Constitution: “Without a change in the language of the Constitution, no patent could be conferred except upon an inventor, and for his own invention or discovery.”⁹⁷ He further asserted that “so positive and specific is this rule that no agreement of private parties can be effectual against it.”⁹⁸ Like Phillips, he thought that private arrangements about

⁹¹ CURTIS, *supra* note 90, at 103 (citing *Reed v. Cutter*, 20 F. Cas. 435 (C.C.D. Ma. 1841) (No. 11645)).

⁹² *Id.*

⁹³ *Washburn v. Gould*, 29 F. Cas. 312, 316 (C.C.D. Ma. 1844); *see also* C.H. Biesterfeld, *Originality, Ownership, and Shop Rights*, 3 J. PAT. OFF. SOC’Y 262, 270 (1921) (citing *Pitts v. Hall*, 19 F. Cas. 754 (C.C.N.D. N.Y. 1852) (No. 11192); and *Sparkman v. Higgins*, 22 F. Cas. 878 (C.C.S.D. N.Y. 1846) (No. 13208)).

⁹⁴ 128 U.S. 667, 668-71 (1888).

⁹⁵ *Id.* at 672; *see also* *United States v. American Bell Tel. Co.*, 128 U.S. 315, 355 (1888) (opining that “obtaining a patent for an invention of which the party knew he was not the original inventor” is “fraud” and the resulting patent “ought to be revoked and annulled” where the inventor was accused of knowing that the claimed invention, while his own, was not the first, and/or that he copied aspects from another’s application); CHRISTOPHER BEAUCHAMP, *INVENTED BY LAW: ALEXANDER GRAHAM BELL AND THE PATENT THAT CHANGED AMERICA* 88, 96-97 (2015) (reviewing arguments against the Bell patent).

⁹⁶ *Hazelton*, 128 U.S. at 672.

⁹⁷ ROBINSON, *supra* note 64, at 522.

⁹⁸ *Id.*

patent ownership could not change the true inventor requirement. Any agreement before a patent application was made cannot “empower the assignee to take a patent for the invention in his own name.”⁹⁹ The inventor always had to make the application, “whoever may by law be actually entitled to the ownership of the exclusive privilege when granted.”¹⁰⁰ Early twentieth-century patent lawyer C.H. Biesterfeld agreed, surveying all the ways in which disputes might arise between true inventors and would-be owners while reiterating that one who is not the “original inventor” cannot claim inventorship.¹⁰¹

In the twenty-first century, the prohibition against non-inventors named as inventors is explained as a necessary requirement to protect inventors and the general public, “even if the true inventor does not complain.”¹⁰² Only those “who actually expend inventive effort successfully” are entitled to the status of “inventor.”¹⁰³ As one patent lawyer explained it, “ownership . . . can be purchased, but inventorship . . . cannot.”¹⁰⁴ This rule is so clear that assignment by patent seems almost unimaginable, an obviously invalid practice that no patent practitioner would allow their client to use. In the contemporary patent system, the concern is no longer assignment by patent as a short-cut to memorialize ownership transfers, but rather policing inadvertent errors of inventorship when patenting collaborative inventions in order to avoid the same sanctions the Court imposed in *Hazelton*.¹⁰⁵

⁹⁹ *Id.* at 581.

¹⁰⁰ 2 *id.* at 27.

¹⁰¹ Biesterfeld, *supra* note 93, at 263 (noting that disputes might arise in interference proceedings, infringement suits, and suits regarding contracts to assign inventions).

¹⁰² CHISUM, *supra* note 36, at § 2.10.

¹⁰³ *Id.* Cf. Sipe, *supra* note 45, at 1067 (arguing that the inventorship requirement is “currently at its weakest force,” an example of “previously strong moral considerations [being] marginalized and eliminated”).

¹⁰⁴ Joseph Mitchell, *Inventorship Can Determine Ownership*, 4 GA. BAR J. 42, 44 (1999).

¹⁰⁵ Patrick G. Gattari, *Determining Inventorship for US Patent Applications*, 17 INTELL. PROP. & TECH. L.J. 16, 17-18 (2005) (describing ways inadvertent errors in inventorship can arise). For cases finding patents invalid for inventorship defects after 1952, see Greive, *supra* note 43, at 1356, 1358 (citing *Merry Mfg. Co. v. Burns Tool Co.*, 335 F.2d 239 (5th Cir. 1964); *Stearns-Roger Mfg. Co. v. Ruth*, 179 F. Supp. 906 (D. Colo. 1959); *PerSeptive Biosystems, Inc. v. Pharmacia Biotech*, 12 F. Supp. 2d 69 (D. Mass. 1998); *Frank’s Casing Crew & Rental Tools, Inc. v. PMR Technologies, Ltd.*, 292 F.3d 1363 (Fed. Cir. 2002)). As discussed *supra* note 45, the law of inventorship has evolved to provide for correction in cases involving no deceptive intent and at least one true inventor on the application. Patent Act of 1952, 35 U.S.C. §§ 116, 256; see also David W. Carstens, *Joint Inventorship Under 35 U.S.C. 116*, 73 J. PAT. & TRADEMARK OFF. SOC’Y 616 (1991) (discussing amendments to § 116 in 1984). In 2011, the America Invents Act amended § 256 to remove the requirement of lack of deceptive intent. 35 U.S.C. § 256 (2012).

Yet during the long period of uncertainty, and even after the eventual consensus that only originators were entitled to claim “inventor” status, the law on the books hid the continued practice of assignment by patent, that is, the use of false inventors.

*E. Convenient False Inventors*¹⁰⁶

The extent to which Americans used assignment by patent is unknowable, although the fact that there were reported cases involving the practice is an indication that it occurred much more often than we can document, as is Robinson’s detailed refutation of the practice.¹⁰⁷ Unless such a patent was attacked on the grounds of failure of inventorship in an interference or court proceeding, the consensual subterfuge would remain invisible.¹⁰⁸ The few judicial opinions that provide traces of the practice involve white men listing themselves as inventors on patent applications to claim inventions they had not originated but rather had apparently purchased from other white men, the true inventors.¹⁰⁹

Why would parties to these transactions choose assignment by patent rather than assignment by recorded agreement? We can infer that the practice persisted, despite the increasing clarification of the law of inventorship, because of its simplicity, particularly for patent system participants filing applications without legal advice. As early as 1810, lawyer and technology

¹⁰⁶ Note that I focus on arrangements between U.S. inventors and investors. There is also an international history of consensual assignment by patent: the practice of foreign agents applying for a patent in a non-U.S. country for a U.S. inventor in the agent’s name, with the permission of the inventor and the intention that the U.S. inventor would control commercialization of patent rights. See, e.g., B. Zorina Khan, *Selling Ideas: An International Perspective on Patenting and Markets for Technological Innovations, 1790-1930*, 87 Bus. Hist. Rev. 39, 51 n.34 (2013).

¹⁰⁷ Americans frequently engaged in commercial transactions involving patents and sued each other over patents much more often than reported cases indicate. See B. Zorina Khan & Kenneth L. Sokoloff, “Schemes of Practical Utility”: *Entrepreneurship and Innovation Among “Great Inventors” in the United States, 1790-1865*, 53 J. Econ. Hist. 289, 301-04 (1993) (describing means of profiting from patents and calculating that 80% of “great inventors” were involved in litigation); Beauchamp, *supra* note 81, at 852, 855 (discussing an “explosion” in filed patent cases unreflected in reported opinions); B. Zorina Khan, *Property Rights and Patent Litigation in the Early Nineteenth-Century America*, 55 J. Econ. Hist. 63, 94-95 (1995) (counting reported patent cases).

¹⁰⁸ Claire Wan-Chiung Cheng & Jeffrey Wu, *Taking a Slice of the Pie: An Empirical and Theoretical Inquiry on Allegedly Challengeable Inventorships*, 61 IDEA 184, 191 n.14, 192-96 (2020) (noting that in a contemporary context, “[w]ithout inside-information [sic], inventorship misrepresentations are hard to discover” and describing indirect methods used to estimate inventorship issues).

¹⁰⁹ See, e.g., cases cited *supra* notes 71, 74, and 93.

enthusiast Thomas Fessenden had published a model petition for a patent that would-be patentees could use to file an application without encountering a legal professional like Phillips who might warn them that ownership needed to be kept separate from inventorship.¹¹⁰ Copies of this form circulated in magazines aimed at inventors.¹¹¹ Even the mouthpiece of the patent agency Munn & Co., the weekly newspaper *Scientific American*, told its readership in 1847 that “[w]e advise every inventor who is able, to make application for himself,” reassuring would-be patentees that with “study,” they could master the forms, which the *Scientific American* reprinted, along with the entirety of the patent office’s *Information to Persons Having Business to Transact at the Patent Office*.¹¹² While Fessenden, the *Scientific American*, and the patent office offered model assignment forms, readers might conclude that not only would filing the application oneself “save some expense,” but also that skipping the preparation of an assignment and its recording would save further expense and hassle.¹¹³

For an investor, being named as a false inventor on the patent application offered certainty of ownership of the resulting patent and an early opportunity to claim something tangible in exchange for financial contributions, if only the description, model and drawings of the patent application. The risk of losing a patent should the subterfuge come to light might not have occurred even to those who read the statutory requirement of “true” and “original” inventors. After all, there was nothing “surreptitious” if all parties were consenting. Even true inventors who sought help in filing a patent application might have hired agents who suggested, or at least did not discourage, the use of assignment by patent to please an investor. While some lawyers developed significant expertise in patent law through representing inventors and commercializers in

¹¹⁰ THOMAS GREEN FESSENDEN, AN ESSAY ON THE LAW OF PATENTS FOR NEW INVENTIONS 202-04 (Boston, D. Mallory, & Co. 1810); Marcus A. McCorison, *Thomas Green Fessenden, 1771-1837: Not in BAL*, 89 PAPERS BIBLIOGRAPHICAL SOC’Y AM. 4, 7-9, 11-13 (1995) (detailing Fessenden’s legal training, involvement with inventions, and brief practice of law).

¹¹¹ See, e.g., *Analysis of Law of Patents*, *supra* note 84, at 29 (reprinting Fessenden’s petition).

¹¹² *To Correspondents*, 3 SCI. AM., Nov. 13, 1847, at 62; *Information to Persons Having Business to Transact at the Patent Office*, reprinted in 2 SCI. AM., Sept. 26, 1846, at 3; 2 SCI. AM., Oct. 3, 1846, at 11; 2 SCI. AM., Oct. 10, 1846, at 19; 2 SCI. AM., Oct. 17, 1846, at 27; 2 SCI. AM., Oct. 24, 1846, at 35; 2 SCI. AM., Oct. 31, 1846, at 43 (form of petition and form of specification); 2 SCI. AM., Nov. 6, 1846, at 51 (form of assignment of a right in a patent); 2 SCI. AM., Nov. 14, 1846, at 62 (form of assignment before obtaining letters patent and to be recorded preparatory thereto); 2 SCI. AM., Nov. 21, 1846, at 67.

¹¹³ *To Correspondents*, *supra* note 112.

business negotiations and litigation, there were few or no constraints on who could offer their services as an agent to secure patents until 1922.¹¹⁴

For a glimpse of how white male Americans thought about patent applications, investment, and ownership in 1836, we can look at the diary of William F. Gray, a recently admitted lawyer and enslaver who kept a diary during his travels between the new Republic of Texas and his home in Virginia.¹¹⁵ After a trip to Texas as an agent for two would-be land speculators, during which Gray assessed possible property for purchase, he was returning to Virginia on a steamboat out of Vicksburg, Mississippi, when he met Mr. January, who was traveling with a model of a new cotton and tobacco press.¹¹⁶ Two days after the men met, January proposed that Gray “take the agency” of the machine for Texas, which Gray wrote in his diary would mean that he would “take out the patent as a proprietor, in my name.”¹¹⁷ January explained that the press had been invented by Mr. Payne and that he and his partner could offer Gray half of whatever Gray made from the Texas rights.¹¹⁸ Texas, only three months old at the time January made his proposition to Gray, did not yet have a patent act.¹¹⁹ Although Gray accepted January’s invitation to see a working version of the press ashore a few days later, there is no indication in the Republic of Texas archives that Gray pursued the matter either during a return land-buying visit to Texas in 1837 or after he eventually emigrated.¹²⁰

¹¹⁴ Act of Feb. 18, 1922, ch. 58, § 3, 42 Stat. 392 (amending patent law to give patent commissioner the power to ensure that registered practitioners had “necessary qualifications”). Registration of those representing clients in the patent office had begun in 1897, with earlier commissioners exercising ability to ban practitioners who lacked “good moral character.” Kara W. Swanson, *The Emergence of the Professional Patent Practitioner*, 50 *TECH. & CULTURE* 519, 543 (2009). For lawyers with expertise in patent law, see *id.* at 519, 534-35.

¹¹⁵ Paul D. Lack, *Introduction to THE DIARY OF WILLIAM FAIRFAX GRAY FROM VIRGINIA TO TEXAS 1835-1837*, at xi, xi, xv-xvi (Paul D. Lack ed., 1997), <https://perma.cc/R74J-NZX5>. For Gray’s slave ownership in Virginia, see *id.* at xv.

¹¹⁶ William Fairfax Gray, Monday, June 6, 1836, *in id.* at 179. Note that earlier in the year, Gray had visited two cotton presses in New Orleans. William Fairfax Gray, Monday, January 4, 1836, *in IV id.* at 55-56; William Fairfax Gray, Tuesday, January 5, 1836, *in IV id.* at 56-57; see also Lack, *supra* note 115, at xvi, xix-xx (discussing timeline of Gray’s travels).

¹¹⁷ William Fairfax Gray, Wednesday, June 8, 1836, *in id.* at 179-80.

¹¹⁸ *Id.*

¹¹⁹ The Republic of Texas was formed in March 1836 and its first patent act passed in 1839. Andrew Forest Muir, *Patents and Copyrights in the Republic of Texas*, 12 *J.S. HIST.* 204, 211 (1946).

¹²⁰ William Fairfax Gray, Thursday, June 16, 1836, *in Gray supra* note 115, at 181; Lack, *supra* note 115, at xx-xxiii, xxvi. While the absence of records does not prove that Gray did not pursue the matter, neither Texas historian Andrew Forest Muir nor I in my more recent explorations in the Texas State Archives have found any trace of Payne’s cotton press. Muir, *supra* note 119, at 205.

Payne (through his partner January) was not the only U.S. inventor who thought to earn money by authorizing someone else to obtain a Texas patent on their invention. In 1841, James Hamilton of New York City agreed to grant John R. Burke a one-half interest in five of his inventions already patented in the United States provided that Burke would travel to Texas and patent them, either in his own name or in the name of a Texas resident.¹²¹ By the time Hamilton and Burke came to their arrangement, Texas had a patent law that, like U.S. law, required the applicant to swear that they were the original inventor.¹²² It also required applicants to appear in person in Texas and to swear that they were either Texas citizens or aliens who had declared their intention of becoming a citizen.¹²³ Hamilton was evidently not interested in emigrating, but he was willing to do a business deal to exploit the Texas market. Assignment by patent seemed the best approach to Burke and Hamilton. The Texas records indicate that Burke revealed to the Texas patent office that he was not the true inventor and sought a patent as a partner of the true inventor but the records do not reveal whether Burke received a patent.¹²⁴

The participants in these scenarios, who collectively possessed legal training, patent system familiarity, and business acumen, proceeded as if assignment by patent were an available option. Relying on their understanding of the U.S. patent system, they presumed that with the inventor's consent, a business partner could readily obtain a Texas patent, swearing that they were the "true inventor." What was convenient for inventors seeking U.S. patent rights could be even more so for those looking across national boundaries. The presence of the false inventor within Texas allowed the true inventor to use assignment by patent to claim rights otherwise unavailable while the inventor remained in the United States.

¹²¹ Agreement Between John R. Burke and James Hamilton (Dec. 2, 1841) (copy as provided to Mr. Henry) (on file with the Texas State Library and Archives Commission, Texas Secretary of State General Correspondence of the Department of State, Box 2-9/8, Folder 7); *see also* Muir, *supra* note 119, at 216-17 (describing Hamilton's patents).

¹²² An Act Securing Patent Rights to Inventors, Jan. 28, 1839, § 3, *reprinted in* 2 THE LAWS OF TEXAS 1822-1897, at 109-111 (H. P. N. Gammel ed., Austin, Gammel Book Co. 1898).

¹²³ *Id.* §§ 1, 3; *see also* Muir, *supra* note 119, at 211.

¹²⁴ Agreement Between John R. Burke and James Hamilton, *supra* note 121; *see also* Muir, *supra* note 119, at 217.

III. PASSING IN THE PATENT SYSTEM

The history of true and false inventors in U.S. law and patent practice offered in Part II is formally race and gender neutral. The case decisions, statutory changes, and expert opinions discussed do not address the race or gender of participants. Considering the practice of assignment by patent from the perspective of the Black woman inventor, however, suggests that racial and gender identity mattered. The provided examples involved white men doing business in a world in which their race and gender categorization gave them maximum legal protection, political voice, and access to resources, even as they may have been scrambling for financial stability. Tench Coxe assumed in 1790 that the developing patent system would bend to his will and allow him to obtain a patent of importation, just as, forty years later, William Gray assumed he might participate in patent speculation as easily as in land speculation. Ellen Eglin, as a Black woman, made none of these assumptions. She assumed, rather, that she would encounter stigma and bias in the patent system and in the marketplace, hindering her direct participation as inventor-patentee.

Recognizing that difference, we can attend to the silences of the patent archive, noticing who was not claiming the legal category of “true inventor.” Contemplating what we do not see—evidence of the inventiveness of those who moved through the world with identities marginalized on the basis of race and/or gender—those scant recorded words of Eglin’s commercialization strategy become a whisper that speaks to us about the raced and gendered possibilities of consensual assignment by patent. Eglin shifted all the risk of a patent that “confers no rights” to the agent in exchange for \$18 and thereby escaped from the bias she anticipated in the patent office and the marketplace and the stigma that might devalue her patent and patent-protected product should she claim true inventor status.¹²⁵ For Eglin and other marginalized inventors, the practice of using false inventors was attractive because it could be raced and gendered.

A white male false inventor offered a cover for marginalized identities, an extreme form of passing less assimilationist than evaporative.¹²⁶ Those

¹²⁵ *Kennedy v. Hazelton*, 128 U.S. 667, 672 (1888).

¹²⁶ Note that the term “covering” has been used to denominate a behavioral strategy to de-emphasize stigmatized identities distinct from passing. I am using “cover” and “covering” descriptively as one means of passing, rather than in this theoretical sense. Kenji Yoshino, *Covering*, 111 *YALE L.J.* 771, 772 (2002) (citing GOFFMAN, *supra* note 3, at 102-04) (drawing on Erving Goffman’s analysis of stigma to identify “covering” as one of multiple strategies including conversion and passing).

choosing a white male false inventor as a means of engaging with the patent system did not pass into a different space of privilege, becoming inventor-patentees with an accompanying assumption of white masculinity, but instead disappeared altogether from the archives of invention, replaced wholesale by someone already perceived as entitled to such privilege.¹²⁷ Marginalized inventors adapted assignment by patent, drawing on the proven strategy of passing to make it a racialized and gendered practice. To understand this history, I start with Eglin and other Black women and then consider their stories in relation to those of Black men and white women who participated in invention and patenting in order to explore fully the race and gender patent gaps.

A. *Inventing While a Black Woman*

1. *Constraints*

As a Black woman, Eglin faced what Elise Johnson McDougald called in 1925 “over-powering conditions” of oppression.¹²⁸ Her occupation as a washerwoman, and the limited income it provided, was a daily reminder of that oppression, as Eglin navigated a race- and gender-segregated employment market.¹²⁹ While the tradition of Black women earning money for their labors in the United States is as old as the country itself, the opportunities for business success were much greater in certain sectors, such as cooking and cosmetics.¹³⁰ Eglin’s analysis that “if it was known a [Black] woman patented the invention, white ladies would not buy the wringer,” indicated her keen awareness of these constraints. She anticipated that her racial identity would create stigma. Her interviewer, Charlotte Smith, reported that gender could also be stigmatizing

¹²⁷ For passing as leaving one space and entering another, see, for example, Kennedy, *supra* note 26, at 1177 (passing as “exit”). I call this strategy an extreme form of passing because it involves the intentional assumption of dominant identity(ies) in order to avoid bias and stigma and improve access to resources, although I recognize that one could argue that consensual assignment by patent to cover a marginalized inventor identity caused the *invention*, but not the *inventor*, to pass. Eglin participated in the wholesale replacement of her identity in the patent system, but retained her race and gender identity (as far as we know) in other aspects of her life.

¹²⁸ McDougald, *supra* note 16, at 312.

¹²⁹ *Id.* at 309-10 (detailing employment discrimination against Black women).

¹³⁰ BERRY & GROSS, *supra* note 18, at 5-6; see also WALKER, *supra* note 2, at 68-72, 127-49 (discussing business enterprises of both enslaved and free Black women from 1790 to Emancipation in 1865).

for inventors, relating how a white woman had chosen to patent her invention in the name of a man to avoid devaluation.¹³¹

Such devaluation was fed by the assertions of powerful white men in legislative sessions, in print, in classrooms, and in daily interactions that all women and persons of color were biologically limited in ability.¹³² The common belief that white women and Black women and men could not invent also supported bias. Even in the twenty-first century, implicit bias in the patent prosecution process may contribute to applicants perceived as female and/or nonwhite having a lower rate of patent issuance.¹³³ At the turn of the twentieth century, Black patent examiner Henry E. Baker noted that as he sought information on Black inventors, he encountered white patent lawyers who regarded his quest as a “joke,” because they had “never heard of a colored man inventing anything.”¹³⁴ The possibility of a Black woman inventor was evidently beyond their contemplation.

2. Opportunities

Eglin knew that her financial resources were limited and that she faced bias and stigma as an inventor and would-be businesswoman. Her few recorded words, though, indicate that despite those hurdles, she was able to draw upon her abilities and to adapt existing strategies. She possessed creativity, demonstrated in her invention. She had the ability to describe her invention in a way that conveyed its value. She showed initiative in finding an agent and negotiating the sale, even for a small sum. She also had two tested strategies she could adopt: the tradition of false inventors in the U.S. patent system and the long history of Black women passing to achieve their goals.¹³⁵

Like many white male inventors with limited financial resources, Eglin sought an investor to help her monetize her inventiveness. An arrangement with an investor that was intended to convey an ownership interest could

¹³¹ Smith, *supra* note 32.

¹³² For discussion of the claimed biological disability of all women and Black women and men, particularly with respect to invention and patents, see Swanson, *Inventing the Woman Voter*, *supra* note 9, at 561; Swanson, *Race and Selective Legal Memory*, *supra* note 13, at 1109.

¹³³ See Kyle Jensen, Balázs Kovács & Olav Sorenson, *Gender Differences in Obtaining and Maintaining Patent Rights*, 36 NAT. BIOTECH. 307, 308 (2018) (analyzing outcome of U.S. patent applications between 2001 and 2014 and finding gender differences as high as 21%); Schuster et al., *supra* note 3, at 282 (confirming result as to women and reporting disparity regarding minority applicants).

¹³⁴ HENRY E. BAKER, *THE COLORED INVENTOR: A RECORD OF FIFTY YEARS* 3 (1913).

¹³⁵ See HOBBS, *supra* note 26, at 10 (noting that racial passing generally drew on the qualities of “gumption, resourcefulness, discipline, and no small measure of humor”).

involve assignment by patent. As discussed in Part II, this practice was both convenient and potentially risky for those intending to profit from the patent. Eglin, and other inventors who did not have a white male identity, had to consider additional risks. The use of a false inventor to apply for a patent offered more than convenience: it separated their invention from their stigmatized identity, avoiding the risk of stigma and bias Eglin predicted would otherwise hamper her entrepreneurial ambitions. While Eglin herself would continue to suffer those “over-powering conditions,” her invention would not be subject to the “contempt from the world” that McDougald described as the daily fate of Black women.¹³⁶ A false inventor would allow Eglin’s invention to pass as the brainchild of a white male mind, not merely temporarily in the patent application process, but permanently in the patent record, completely severed from Eglin’s identity.

When contemplating the possibility of passing in the patent system, Eglin likely knew the countless creative ways Black women in the United States had previously used passing to achieve their goals. Before Emancipation, Black women had passed as free to escape slavery, changing their clothing as a means of signaling that their bodies were not claimed as property.¹³⁷ Others, traveling via the underground railway, had passed as male to facilitate their journey to freedom.¹³⁸ These stories of bravery were told and retold among the Black community.¹³⁹ Ellen Craft, in a daring performance, passed as both white and male when fleeing enslavement with her Black husband in 1848, pretending to be a white planter accompanied by his enslaved servant.¹⁴⁰ These acts of passing were short-term strategies used to allow their adopters to live as free Black women in the North.

¹³⁶ McDougald, *supra* note 16, at 312, 314.

¹³⁷ BERRY & GROSS, *supra* note 18, at 42-44.

¹³⁸ WILLIAM STILL, *THE UNDERGROUND RAILROAD* 60-61, 182-85, 558 (Philadelphia, Porter & Coates 1872).

¹³⁹ *See, e.g., id.* at title page (subtitled the book “A Record of Facts, Authentic Narratives, Letters, &c., Narrating the Hardships Hair-breadth Escapes and Death Struggles of the Slaves in their efforts for Freedom”).

¹⁴⁰ ELLEN CRAFT & WILLIAM CRAFT, *RUNNING A THOUSAND MILES FOR FREEDOM* 29-31, 34-35 (London, William Tweedie 1860) (describing Ellen using bandages, glasses and men’s clothing for her disguise); *see also* Kennedy, *supra* note 26, at 1147-48 (describing Craft’s temporary passing as “extraordinary instance” of passing). Note that while William claimed credit for the idea of disguising Ellen, another contemporary account gives Ellen credit. *Compare* CRAFT & CRAFT at 29, *with* BARBARA MCCASKILL, *LOVE, LIBERATION, AND ESCAPING SLAVERY: WILLIAM AND ELLEN CRAFT IN CULTURAL MEMORY* 25 (2015).

Other Black women passed as a long-term strategy to allow them to pursue otherwise unattainable occupations and experiences.¹⁴¹ Eglin's contemporary, Ida Platt, who in 1894 became the first Black woman admitted to the Illinois bar, passed as white during her years in practice in Chicago. This strategy allowed her to support herself and her family with her chosen profession—the sole Black woman attorney to do so in the nineteenth century.¹⁴² Like Eglin, Platt recognized the bias and stigma she would face. Platt chose to reduce that burden by hiding one aspect of her identity in a fluid performance of passing that included joining the all-white Women's Bar Association of Illinois while continuing to live with her Black family members.¹⁴³

Eglin's position in the late nineteenth century as a washerwoman and inventor differed from both that of Craft, enslaved at the time of her passing, and the well-educated, middle-class Platt. According to the patent laws, Eglin could achieve a new status, inventor-patentee, without passing, but given pervasive biases, passing might facilitate that process. Unlike Craft, who resumed her identity as a Black woman after her flight, however, Eglin feared that the desired new status would be valueless to her in her true identity. Like Platt seeking to use her law license to earn money, Eglin anticipated that she might need to hide her Black identity when seeking to commercialize her invention, with or without a patent. Platt, like Craft, had the option of passing for white due to her appearance.¹⁴⁴ The majority of Black Americans did not have that option, including, we can speculate, Eglin. But through a false

¹⁴¹ See generally HOBBS, *supra* note 26; see also Kennedy, *supra* note 26, at 1147-48, 1150-55 (providing examples from fiction and non-fiction); Harris, *supra* note 27, at 1710-14 (detailing her grandmother's passing for a job); PATRICIA J. WILLIAMS, *THE ALCHEMY OF RACE AND RIGHTS* 222-23 (1991) (describing her godmother's abandonment by her mother as a child so that her mother could pass long-term as white).

¹⁴² Gwen Jordan, "A Woman of Strange, Unfathomable Presence": *Ida Platt's Lived Experience of Race, Gender, and Law, 1863-1939*, 42 *HARV. J.L. & GENDER* 219-21, 227, 229-30 (2019). Four other Black women admitted to the bar before 1900 either tried and failed to establish a practice before turning to other careers or turned directly to teaching. *Id.* at 229-30 (detailing careers of Charlotte Ray, Mary Ann Shadd Cary, Marie A.D. Madre and Lutie Lytle).

¹⁴³ *Id.* at 237-38, 241-42. Jordan, working from a limited archive through which to trace Platt's life, argues that Platt's passing was both a permanent legal change to a white identity and a temporary social change, limited in time, place, and circumstance. *Id.* at 221, 241-43.

¹⁴⁴ See *id.* at 226 ("[N]o one looking at the portrait of Miss Platt would suspect that any Negro blood ran in her veins."); CRAFT & CRAFT, *supra* note 140, at 2 (describing Ellen as "almost white"); Kennedy, *supra* note 26, at 1145 ("The classic racial passer in the United States has been . . . the individual whose physical appearance allows him to present himself as 'white' but whose 'black' lineage . . . makes him a Negro according to dominant racial rules."); see also HOBBS, *supra* note 26, at 8 (racial passing as option available to "racially ambiguous people").

inventor, a marginalized inventor could orchestrate the passing of their *invention* into the patent records, allowing it to appear to have originated in a white male mind.

In selling her invention to an agent, Eglin adapted the strategy of race and gender passing to the practice of assignment by patent. She granted the agent permission to seek a patent as a false inventor and commercialize her invention, using a more socially powerful white male identity. She combined a patent system practice developed by white men with familiar strategies used by Black women to access resources. By taking a single upfront payment, Eglin also passed all legal risk associated with the use of a false inventor to the owner of any patent the agent chose to obtain.

3. Costs

In Eglin's words, we can hear pain and bitterness, as well as savviness. She recognized that her clothes wringer would not "be known as a [B]lack woman's."¹⁴⁵ Further, Eglin was left with \$18 for an invention that she believed had brought the purchaser "great financial success."¹⁴⁶ Within the constraints she faced, she was not able to leverage her idea into a different life.¹⁴⁷ In 1872, Black minister and author William J. Simmonds had lamented that many Black inventors "for want of means to put their inventions through the patent office and manufacture them, have sold their knowledge for almost a 'mess of pottage,'" resulting in their inventions being patented, if at all, in the name of false inventors.¹⁴⁸

Eglin's decision was one she shared with other Black inventors, but perhaps a strategy used even more often by Black women. Black author Gertrude Bustill Mossell concluded in 1908 that Black women were often "too poor to secure patents," suggesting that a sale to an investor such as Eglin achieved might be a desirable outcome, even if the lion's share of the profits went to the false

¹⁴⁵ *Colored Woman Inventor*, *supra* note 1 (capitalization modernized).

¹⁴⁶ *Id.*

¹⁴⁷ Note that Eglin's acquaintance with Charlotte Smith might have helped Eglin obtain a reliable government salary, as discussed *supra* note 17.

¹⁴⁸ WILLIAM J. SIMMONDS, *MEN OF MARK: EMINENT, PROGRESSIVE AND RISING* 112 (Cleveland, Geo. M. Rewell & Co. 1887). In an ironic echo of Simmonds' words, forty years later, Black author James Weldon Johnson described permanent racial passing as "[selling one's] birthright for a mess of pottage." JAMES WELDON JOHNSON, *THE AUTOBIOGRAPHY OF AN EX-COLORED MAN* 207 (1912).

inventor along with all of the credit.¹⁴⁹ Despite her knowledge of the patent system as a means of commercializing invention, Mossell, whose household income included her husband's earnings as a physician as well as her own as a journalist, did not choose to patent a camping table and portable kitchen she invented, at least not in her own name.¹⁵⁰

As Baker sought information about Black patentees among patent system participants, he received reports of many Black inventors who had considered a patent but had not completed the process, at least not in their own names.¹⁵¹ Those who chose to engage with the patent system via a white male false inventor paid an additional cost beyond the loss of financial rewards reaped by others, akin to the costs of passing for other reasons.¹⁵² They left nothing behind in the patent records to document their inventiveness, contributing to archival silences.

B. *Inventing While a Black Man*

Another Black inventor who left no trace of himself in the patent records was Henry Boyd of Cincinnati, Ohio.¹⁵³ Unlike Eglin, however, Boyd left tangible evidence of his inventiveness behind—wooden bedsteads incorporating his patented invention and inscribed with his name.¹⁵⁴ Boyd partnered with a white man, George Porter, who patented Boyd's improved bedstead in 1833 as a false inventor.¹⁵⁵ Boyd, however, was able to maintain commercial control of his invention, setting up a manufacturing company that made and sold the bedsteads for over twenty years.¹⁵⁶ Boyd's story, another whisper around the

¹⁴⁹ GERTRUDE BUSTILL MOSSELL, *THE WORK OF THE AFRO-AMERICAN WOMAN* 25 (Oxford Univ. Press 1988) (1894) (writing as Mrs. N.F. Mossell).

¹⁵⁰ *Id.*; PATRICIA CARTER SLUBY, *THE INVENTIVE SPIRIT OF AFRICAN AMERICANS: PATENTED INGENUITY* 128 (2004).

¹⁵¹ Henry E. Baker, *The Negro as an Inventor*, in *TWENTIETH CENTURY NEGRO LITERATURE OR A CYCLOPEDIA OF THOUGHT ON THE VITAL TOPICS RELATING TO THE AMERICAN NEGRO BY ONE HUNDRED OF AMERICA'S GREATEST NEGROES* 402 (D.W. Culp ed., 1902); *see also* PORTIA P. JAMES, *THE REAL MCCOY: AFRICAN-AMERICAN INVENTION AND INNOVATION, 1619-1930*, at 78 (1989).

¹⁵² HOBBS, *supra* note 26, at 4, 15 (although experiences of racial passing by African Americans "varied widely," describing racial passing as an "exile" that involves "loss"); Terrell, *supra* note 27, at 56-57, 63 (costs of racial passing).

¹⁵³ SLUBY, *supra* note 150, at 12; JAMES, *supra* note 151, at 39-41.

¹⁵⁴ *Bed Frame Designed By Henry Boyd*, NAT'L MUSEUM OF AFR. AM. HIST. & CULTURE, <https://perma.cc/HET9-7PUS>.

¹⁵⁵ U.S. PAT. OFF., *A DIGEST OF PATENTS ISSUED BY THE UNITED STATES FROM 1790 TO JAN. 1, 1839*, at 392 (D.C., U.S. Government Printing Office 1840) (listing bedstead fastenings patent issued Dec. 30, 1833 to George Porter of Cincinnati, Ohio).

¹⁵⁶ WALKER, *supra* note 2, at 123.

edges of the patent archive, reminds us that marginalized inventors could not rely on the formal race and gender neutrality of the patent laws but rather had to factor their identity(ies) into a risk assessment of their options. Stories of Black male inventors include those who chose to hide in plain sight, seeking patents in their own names either by temporary strategies of passing or relying on a presumption of whiteness. Their names are in the patent record, but their racial identification remains hidden in its silences. Some, like Eglin and Boyd, used a false inventor, choosing to pass as a strategy of commercialization. Others walked away from their inventive creations rather than hide any part of their inventiveness or identity.

1. *Presumed White*

While Black patent examiner Baker noted that it “rarely leaves anything to the imagination” should an inventor seek a patent in person, inventors could use agents or apply by mail, avoiding in-person interactions.¹⁵⁷ A true inventor might pass as a white man while applying for a patent in their own name by taking advantage of the common assumption that all inventors were white men.

For example, Thomas Jennings, a free Black businessman in New York City, received a patent in 1821 for a dry-cleaning invention. His patent is presently the earliest known U.S. patent granted to a Black inventor.¹⁵⁸ Jennings might have used distance as a strategy to keep his racial identity hidden. Jennings’ identity as a Black inventor is only known today because of a report in the Black press—in his case, an obituary published almost forty years later, in 1859.¹⁵⁹ The newspaper report thus preserved his racial identity, giving voice to a silence in the patent record.

¹⁵⁷ BAKER, *supra* note 134, at 4, 6.

¹⁵⁸ U.S. Patent No. 3,306X (issued Mar. 3, 1821); see SLUBY, *supra* note 150, at 15-16 (identifying Jennings as the earliest known African American to receive a U.S. letters patent as of 2004). The possibility remains that earlier U.S. patents were granted to Black inventors. Not all archival silences can be made to speak, but the quest to identify Black inventor-patentees is ongoing. For example, Sarah Goode is often credited as the first identified Black woman inventor-patentee. U.S. Patent No. 322,177 (issued July 14, 1885); see also Lelia McNeill, *These Four Black Women Inventors Reimagined the Technology of the Home*, SMITHSONIAN MAG. (Feb. 7, 2017), <https://perma.cc/86HP-WY8T>. But other research suggests possible earlier patents granted to Black women. SLUBY, *supra* note 150, at 126 (noting that while Goode had been “previously . . . cited as the first black woman patentee,” Judy W. Reed is now known to have patented earlier); Dennis Forbes, *Uncovering History’s Black Women Inventors*, U.S. DEP’T OF COM. (Feb. 12, 2014), <https://perma.cc/U9FR-8SDB> (identifying Martha Jones and Mary Jones De Leon as Black women who received patents before Reed).

¹⁵⁹ *Thomas L. Jennings*, ANGLO-AFRICAN (N.Y.C.), Apr. 1859, at 126-28.

Evidence that Jennings was successful in passing as a white man while applying for a patent exists in the pages of a patent office report published in 1840 that lists all patents granted between 1790 and 1839, including Jennings' patent.¹⁶⁰ In that report, there is only one inventor whose race is indicated. Next to the name of Henry Blair of Maryland, recipient of patents in 1834 and 1836, is the descriptor "colored man."¹⁶¹ While the record does not reveal whether Blair's status was known when he applied for his first patent, the *National Intelligencer*, a white Washington, D.C. paper, reported that Blair, a "free man of color," had patented a corn planter, "a very simple and ingenious machine . . . now exhibiting in the Capitol," and was working on modifying it to plant cotton, a modification that led to his second patent a few months later.¹⁶²

When Blair—who could not sign his own name and marked his application with an "X"—applied for his second patent, Henry Bishop and Robert Mills served as witnesses.¹⁶³ At the time, two white men by those names were working in the patent office, Bishop as a messenger and Mills as a clerk and draftsman.¹⁶⁴ The path that led the ingenious Blair from his rural home in Glen Ross, Maryland to the patent office is unknown, but it is reasonable to guess that he might have appeared in person at the office, using as witnesses men who were in the building and would have recognized him as a "colored man." These white men, or others, may have drafted his application as well, since Blair was apparently illiterate. The report that Blair's first machine was on exhibit in the Capitol indicates that Blair had found a sponsor in Congress. In this case, public knowledge of Blair's racial identification did not doom his application, but instead made his accomplishment newsworthy.¹⁶⁵ The patent commissioner felt that Blair's racial identification was also significant enough to note in the official patent office records, despite the otherwise universal failure of the office to collect information on the race or gender of applicants. In contrast, the racial identification of Jennings, and probably other unidentified

¹⁶⁰ U.S. PAT. OFF., *supra* note 155, at 89, 550.

¹⁶¹ *Id.* at 468.

¹⁶² *The Corn Planter*, NAT'L INTELLIGENCER (D.C.), Apr. 18, 1836.

¹⁶³ U.S. Patent No. 15 (issued Aug. 31, 1836) (listing "Robt. Mills" and "Henry Bishop" as witnesses in printed version); *see also* SLUBY, *supra* note 150, at 21-25 (reproducing handwritten version of U.S. Patent No. 15). Note that the handwritten specification of Blair's first patent, which is available as a scan on the USPTO website, is difficult to read. U.S. Patent No. 8447X (issued Oct. 14, 1834). It appears that one witness may have been Henry Bishop and that the second witness was not Robert Mills. *Id.*

¹⁶⁴ DOBYNS, *supra* note 7, at 119, 123-24.

¹⁶⁵ *See also* *Invention by a Negro*, THE LIBERATOR (Boston), May 14, 1836 (reprinting *National Intelligencer* story).

Black inventors, was hidden in the presumed whiteness of all patentees, an assumption emphasized by the notation of Blair as the sole exception.

While relying on the presumption of whiteness offered the opportunity for Black inventors like Jennings to avoid possible patent examiner bias, the challenges did not end there. Having obtained a patent, Black inventors still faced a decision about commercialization, given the possibility of anti-Black bias in the marketplace. One option was to embrace a public role as a Black inventor. Jennings, already a prominent racial activist who had once “paraded the streets of the metropolis with a banner inscribed with the figure of a black man and the words ‘AM I NOT A MAN AND A BROTHER,’” evidently used his invention in his clothier business, adding inventor-patentee to his existing role as a Black businessman.¹⁶⁶

In 1853, another Black inventor-patentee in New York, Freeman Murrow, may have used the interest of white newspapers in a “colored inventor” to aid his commercialization efforts.¹⁶⁷ Murrow patented an improved whitewashing tool¹⁶⁸ and then took his brush to the publishers of the *New York Tribune*, succeeding in getting them to declare it a “real improvement on the clumsy article commonly in use” and to publish his name and address, commending Murrow’s patent “to the attention of brush makers.”¹⁶⁹ The paper published Murrow’s accomplishment under the tagline: “A Colored Inventor.”¹⁷⁰ The white press, as it had with Blair’s accomplishment, considered Murrow’s racial identification newsworthy. In drawing attention to himself as a “colored inventor,” Murrow sought to accomplish what Eglin had avoided, that is, to commercialize his brush as a known Black inventor.

Jennings and Murrow each performed an individualized risk/benefit calculation and chose a different path than Eglin did. Jennings had the advantage of already being in business at the time of his invention, and Murrow might have relied on his masculinity in accessing the resources necessary to obtain a patent and commercialize his brush. As patentees, both Jennings and Murrow had legal protection against copiers as well as government certification to bolster what otherwise might have been stigmatized as merely the ideas of Black men.

¹⁶⁶ *Thomas L. Jennings*, *supra* note 159, at 126-27; *SLUBY*, *supra* note 150, at 16.

¹⁶⁷ *A Colored Inventor*, *FREDERICK DOUGLASS’ PAPER* (Rochester, N.Y.), July 29, 1853, at 2 (Black newspaper identifying patentee Freeman Murrow as a “colored inventor”).

¹⁶⁸ U.S. Patent No. 8,911 (issued Apr. 27, 1852).

¹⁶⁹ *A Colored Inventor*, *supra* note 167.

¹⁷⁰ *Id.*

Even when Black inventor-patentees commercialized their inventions themselves, when men like Jennings allowed patent bureaucrats far from those who knew him as a Black businessman and activist to assume he was a white man, there were costs. The presumed whiteness of all U.S. patentees, strengthened by the sole designation of Blair as “colored,” allowed the patent archive, circulating in the form of a list of all issued U.S. patents, to erase Blackness from the record of American inventiveness, further feeding the presumption that inventiveness was limited to white Americans. Even among the Black community, the presumption hid Black inventors in the silences of the archive. Patent examiner Baker sought to compile and publish a comprehensive list of Black patentees. An early version of Baker’s list, published in 1894, omitted both Jennings and Murrow.¹⁷¹ Those who did not encounter the earlier newspaper reports of their inventions read the patent office records and presumed them to be white inventors. Black women inventors were even more invisible. Baker’s list included Miriam Benjamin as the lone Black woman inventor-patentee.¹⁷² At the time, a published patent office list of women patentees included Sarah E. Goode, who would later be identified as a Black woman.¹⁷³ With no whispers about her identity then circulating, both Black and white Americans assumed Goode was a white woman.¹⁷⁴

2. Commercializing While Black

While Jennings and Murrow commercialized their inventions as Black inventor-patentees, other Black male inventors feared, like Eglin, that if their racial identification were known, their commercialization efforts would be hindered. Successful Black inventor Garrett Morgan used different strategies over his career as he accumulated more resources and knowledge of both business and the patent system. As a young man working as a sewing machine mechanic in Cleveland, Ohio, he reportedly invented a sewing machine belt fastener that he sold for \$50 in 1901.¹⁷⁵ If his invention was ever patented, it

¹⁷¹ *A Partial List of Patents Granted by the United States for Inventions by Afro-Americans*, 26 CONG. REC. 8382–83 (Aug. 10, 1894) [hereinafter *A Partial List*]; Swanson, *Race and Selective Legal Memory*, *supra* note 13, at 1092 (detailing source of list and circumstances of its publication).

¹⁷² *A Partial List*, *supra* note 171, at 8383.

¹⁷³ U.S. PAT. OFF., *supra* note 32 (listing Sarah E. Goode as recipient of U.S. Patent No. 322,177 (issued July 14, 1885)); see SLUBY, *supra* note 150, at 126 (describing Sarah E. Goode as Black woman patentee).

¹⁷⁴ Swanson, *Inventing the Woman Voter*, *supra* note 9, at 566.

¹⁷⁵ David Bianco, *Garrett Morgan 1877-1963*, ENCYCLOPEDIA.COM, <https://perma.cc/67SX-REKL>.

was by a false inventor, for Morgan's name does not appear in the patent archive for this early invention. Like Eglin, he chose an upfront payment of rights, perhaps driven by the same calculation she had made that his race would hinder any attempt to commercialize it himself.

Morgan, as a skilled worker, was able to earn more money than a washerwoman. He earned enough to open his own sewing machine shop, which became successful.¹⁷⁶ Morgan then became a serial entrepreneur and inventor. He first established a successful tailoring business that employed thirty-two people by 1909.¹⁷⁷ When he developed another patentable invention, a gas mask, Morgan chose to pursue a patent in his own name, filing an application in 1912.¹⁷⁸ While that application was pending, he started another company to manufacture and market a hair-straightening solution of his own invention, a company that reportedly was successful enough that it supported his work on unrelated inventions.¹⁷⁹

Once Morgan obtained a patent to his gas mask, however, he commercialized it through a majority-white-owned company, retaining only a minority of the shares.¹⁸⁰ He was hired as the general manager to sell the device.¹⁸¹ The company was successful, but in order to aid sales, Morgan chose to pass as a Native American when making sales presentations in Southern states. He claimed to be "Big Chief Mason" from Canada in order to avoid the stigma caused by anti-Black racism.¹⁸² Like Black women escaping slavery who donned the brightly colored head scarves of free Black women, he used clothing to temporarily assume another identity in order to coax orders from white customers.

¹⁷⁶ SLUBY, *supra* note 150, at 95; *Morgan, Garrett A.*, ENCYC. OF CLEVELAND HIST., <https://perma.cc/GK4E-PUDK>.

¹⁷⁷ *Morgan, Garret A.*, *supra* note 176; *see also* SLUBY, *supra* note 150, at 95.

¹⁷⁸ U.S. Patent No. 1,113,675 (filed Aug. 19, 1912).

¹⁷⁹ *Morgan, Garret A.*, *supra* note 176; Bianco, *supra* note 175; *see also* SLUBY, *supra* note 150, at 95.

¹⁸⁰ U.S. Patent No. 1,113,675 (filed Aug. 19, 1912) (issued Oct. 13, 1914); Bianco, *supra* note 175 (describing Morgan as only non-white officer in company); JAMES, *supra* note 151, at 92-93 (describing Morgan as nonmajority shareholder); Cook, *supra* note 3, at 229-30 (describing how Morgan used names of white officers prominently in business correspondence and advertising).

¹⁸¹ Bianco, *supra* note 175; JAMES, *supra* note 151, at 92-93.

¹⁸² JAMES, *supra* note 151, at 93; Cook, *supra* note 3, at 227-28 (describing Morgan's use of "Big Chief Mason" persona and white demonstrators to sell product); *see also id.* at 225 (noting that Morgan's son described racial discrimination against his father in the South and Morgan's use of "George Mason" alias).

An explosion in Cleveland in 1916 brought Morgan publicity when he used his invention to rescue workers trapped underground after ten would-be rescuers had perished, but his actions also revealed his racial identification, reportedly leading to cancelled orders for the mask.¹⁸³ Navigating the same bias and stigma Eglin feared, Morgan relied on white investors and ceded control to white businessmen. While participating in his invention's commercial success, he did so by intermittently engaging in racial passing.

When Morgan invented an automated traffic signal in the 1920s, he again patented it in his own name and first marketed it through his own company, before reportedly selling the patent rights to the white-controlled General Electric Company (GE) for \$40,000.¹⁸⁴ Able to muster more financial resources than Eglin to develop his invention himself, Morgan was able to offer GE rights to a patent acquired in full accordance with the true inventor requirement and a device already proven in the marketplace, allowing him to earn more than a "mess of pottage."

Although he did not make the choice to become nationally known as a Black inventor in 1916, Morgan claimed that identity after that date. By shifting his strategies, Morgan was able, over time and multiple inventions, to achieve business success and social prominence. He became a charter member of the Cleveland Association of Colored Men, founded a Black newspaper, and established a Black country club all while continuing to invent, receiving a patent in 1956 despite near-blindness.¹⁸⁵

3. *Inventing in the Age of Slavery*

Henry Boyd, inventing as a Black man in Ohio seventy years earlier, also became a successful businessman. As a free Black man inventing in the context

¹⁸³ JAMES, *supra* note 151, at 91-93; *Waterworks Tunnel Disasters*, ENCYC. OF CLEVELAND HIST. <https://perma.cc/5Q23-SA5Z> (describing death toll as including ten would-be rescuers and Morgan as "hero"); *see also* Cook, *supra* note 3, at 225 (describing reluctance of white leaders in 1916 to recognize Morgan as a hero).

¹⁸⁴ U.S. Patent No. 1,475,024 (filed Feb. 27, 1922) (issued Nov. 20, 1923); *see* JAMES, *supra* note 151, at 93 (discussing Morgan's patent marketed through G.A. Morgan Safety System and later assigned to GE); SLUBY, *supra* note 150, at 96 (indicating Morgan received U.S., British, and Canadian patents and sold invention rights to GE for \$40,000); *Morgan, Garret A.*, *supra* note 176 (noting sale of traffic light for \$40,000); *see also* PAUL ISRAEL, *EDISON: A LIFE OF INVENTION* 321-23, 335-37 (1998) (describing investments and consolidations that led to formation of GE).

¹⁸⁵ *Morgan, Garret A.*, *supra* note 176; *see* SLUBY, *supra* note 150, at 255 (listing four of Morgan's patents, including U.S. Patent No. 2,762,382 (filed Dec. 11, 1953) (issued Sept. 11, 1956)); Bianco, *supra* note 175 (describing severe case of glaucoma in 1943 leading to near-blindness).

of increasing legal, political, and social tumult surrounding slavery, he chose to use a white male false inventor to secure a patent he then used to build a furniture manufacturing business. Boyd's evident arrangement with Porter that allowed Boyd to control and profit from the patent was more like those of his white male contemporaries in the 1830s, who were using false inventors as convenient means of managing relationships among inventors and investors.

By keeping Eglin's story in mind, however, and considering Morgan's experiences, Boyd's self-erasure from the patent records becomes more than another attempt to avoid an assignment agreement or placate a needed source of capital. His strategy of passing through the patent system under cover of a white man's identity may have been a means of avoiding not only possible racial bias but also outright race-based rejection or even invalidity if he sought a patent as a Black man in the age of slavery.

Patents have always been available to "citizens of the United States," and, after 1800, also to resident aliens.¹⁸⁶ As the ideology of slavery strengthened, increasingly the citizenship status of U.S.-born persons of African descent was called into question.¹⁸⁷ This uncertainty caused Jennings to display his patent proudly as evidence of his citizenship.¹⁸⁸ Although the patent office in 1836 knowingly granted a patent to Blair as a "colored man," Congress also amended the patent act to require applicants to swear an oath "of what country [they were] a citizen."¹⁸⁹ Black inventors born in the United States faced a legal theory that they were ineligible to receive patents as non-citizens. Perhaps no Black inventor could claim the status of "true inventor."

In the 1850s, Black editor, physician, and inventor Martin Delany was reportedly told by white New Yorkers familiar with the patent system that he could not receive a patent as a Black American. Delany evidently gave up his hopes of monetizing his invention rather than participate in the patent system via a strategy of racial passing.¹⁹⁰ In 1858, shortly after the Supreme Court ruled

¹⁸⁶ Patent Act of 1793, ch. 11, § 1, 1 Stat. 318-323 (amended 1800) (repealed 1836); Act of Apr. 17, 1800, ch. 25, § 1 (amending Patent Act of 1793 to extend "the same conditions, limitations, and restrictions" of the patent laws "to all aliens who...shall have resided for two years within the United States.").

¹⁸⁷ See generally MARTHA S. JONES, BIRTHRIGHT CITIZENSHIP: A HISTORY OF RACE AND RIGHTS IN ANTEBELLUM AMERICA (2018).

¹⁸⁸ *Id.* at 43.

¹⁸⁹ Patent Act of 1836, ch. 357, § 6, 5 Stat. 117.

¹⁹⁰ VICTOR ULLMAN, MARTIN R. DELANY: THE BEGINNINGS OF BLACK NATIONALISM 138 (1971); FRANK A. ROLLIN, LIFE AND PUBLIC SERVICES OF MARTIN R. DELANY 78 (Boston, Lee & Shepard 1868). Note that Rollin's biography was written with Delany's collaboration but without any reference to sources. ULLMAN, at 410, 523. The details of this episode are obscure and uncorroborated by other sources.

in *Dred Scott* that African Americans were not U.S. citizens, the Attorney General declared all inventions by African Americans unpatentable based on their inability, whether free or enslaved, to sign the oath of citizenship.¹⁹¹ The door of the patent office was formally closed to Black inventors until *Dred Scott* was overturned.

If a patent granted to a Black American inventor in the age of slavery might be invalid as granted to a true inventor legally unable to obtain a patent, the calculation of the risk posed by using a white false inventor shifted still further for all Black inventors, women and men. While Delany, already a racial activist, rejected this option, Boyd embraced it, giving up formal legal credit for his invention as a strategy to monetize his inventiveness.

Boyd had migrated to Ohio after he bought himself out of slavery in Kentucky using wages earned performing manual labor.¹⁹² Despite experiencing fierce anti-Black racism in Ohio, he eventually became a successful builder and an anti-slavery leader, active in the underground railroad. Like Eglin, he approached the patent system with keen knowledge of the racial politics of the United States. After Porter obtained the patent as a false inventor, Boyd opened a factory in Cincinnati making the bedstead under his own name, while also relying on the presumption of whiteness to pass as a white manufacturer, avoiding stigma and bias. Delany reported that “there are hundreds who deal with Mr. Boyd at a distance, who do not know that he is a colored man.”¹⁹³ Boyd operated his business for decades, while, like Morgan, claiming a public role as a Black leader and businessman in his own community.

Although he passed as white through the patent system and via remote business interactions, Boyd still had to contend with anti-Black racism in Cincinnati. His business was burned multiple times by arsonists and, unable to obtain fire insurance, he eventually closed the business. According to Dun & Bradstreet, Boyd also faced sabotage by his own white employees.¹⁹⁴

¹⁹¹ *Dred Scott v. Sandford*, 60 U.S. 393, 411 (1857); *Invention of a Slave*, 9 Op. Att’y Gen. 171, 172 (1858).

¹⁹² For Boyd’s biography, see JAMES, *supra* note 151, at 39-41; CHARLES CIST, *SKETCHES AND STATISTICS OF CINCINNATI IN 1851*, at 204 (Cincinnati, W.H. Moore & Co. 1851); WILLIAM NELL, *COLORED PATRIOTS OF THE AMERICAN REVOLUTION* 265-70 (Boston, Robert F. Wallcut 1855) (reprinting a biography of Boyd first published in ABIGAIL MOTT, *BIOGRAPHICAL SKETCHES AND INTERESTING ANECDOTES OF PERSONS OF COLOR* (N.Y.C., Mahlon Day 1826), based on contemporary accounts); see also Brian L. Frye, *Invention of a Slave*, 68 SYRACUSE L. REV. 181, 186 n.52 (2018).

¹⁹³ MARTIN ROBISON DELANY, *THE CONDITION, ELEVATION, EMIGRATION, AND DESTINY OF THE COLORED PEOPLE OF THE UNITED STATES* 98 (Philadelphia, Martin Robison Delaney 1852).

¹⁹⁴ WALKER, *supra* note 2, at 122-24 (describing arson in context of white violence against

Boyd's life story, like Morgan's, is extraordinary. Each used inventiveness, business skills, strategic partnerships, and force of personality to succeed financially and socially from their inventions in the face of relentless anti-Black racism in the age of slavery and the age of segregation.¹⁹⁵ Yet their triumphs highlight the ordinariness of Eglin's story. When even these men chose to engage with the patent system through white proxies and Boyd faced anti-Black violence in response to his successful commercialization of his invention, Eglin's decision to accept \$18 for her invention is a whisper that speaks of uncounted other marginalized inventors, women and men, whose inventiveness remains hidden in the patent archive silences because they, too, chose to pass through the patent system.

C. *Inventing While a White Woman*

As Charlotte Smith reported in the same edition of her newspaper that contained her interview with Eglin, white women, too, contemplated the patent system with knowledge that their path to commercialization of invention faced bias and stigma. She recounted the story of white inventor "Mary S.," earning \$3 a week working in a dry goods store, who patented "in a lawyer's name a valuable invention, which has since proved a grand financial success."¹⁹⁶ Mary S. received only \$5 for her invention and, like Eglin, reportedly told Smith that she did not patent in her own name because "if it had been known [as] the invention of a woman, it would have been regarded as a failure."¹⁹⁷

White women seeking to circumvent such bias and stigma could draw upon an extensive history of gender passing in order to obtain access to resources or move through spaces otherwise unavailable to them.¹⁹⁸ Like Mary S., they could use a white male inventor as a form of passing in the patent office. As Eglin did, white women inventors also had to consider how they might proceed after

Black businesses); JAMES, *supra* note 151, at 41; *see also* Cook, *supra* note 3, at 231 (relating story of a later Black inventor in Ohio who successfully commercialized his patented design for a sofa bed via an all-Black company, marketing to all racial identifications without revealing the race of the merchant).

¹⁹⁵ RAYVON FOUCHÉ, BLACK INVENTORS IN THE AGE OF SEGREGATION: GRANVILLE T. WOODS, LEWIS H. LATIMER & SHELBY DAVIDSON 11-14 (2003) (detailing obstacles faced by Black inventors in the age of segregation).

¹⁹⁶ Smith, *supra* note 32.

¹⁹⁷ *Id.*

¹⁹⁸ *See, e.g.*, JEN MANION, FEMALE HUSBANDS: A TRANS HISTORY (2020) (describing eighteenth-century cases of people assigned female at birth choosing to live and work as men).

obtaining a patent. Their decision, like those of all marginalized inventors, depended on an individual calculus of costs and opportunities, and might include an outright sale of rights, seeking a business partner, or, like Morgan, building their own businesses.

By collecting and listening to their stories and considering their experiences in relation to those of Black women inventors, we can gain further understanding about the raced and gendered patent archive. I first use the stories of white women to consider a legal hurdle that women inventors of all racial identities shared and that gender passing in the patent office could not solve: coverture. I then consider the perceived racialized risk to white women that participating in invention and patenting threatened their social position and would bring ridicule and condemnation. The emphasis on loss of femininity in stories about white women inventors underscores the double oppression of Black women inventors who faced hurdles both to claiming the status of “lady” and the status of “inventor.”

1. *Patenting While Married*

The common law doctrine of coverture was based on the theory that a married woman’s legal personhood was subsumed within that of her husband; she did not exist as an independent legal subject.¹⁹⁹ Before marital property reform, which proceeded piecemeal state by state from approximately 1840 to 1890, if a married woman were to receive a patent as the true inventor, her husband would be its owner under state laws that assigned ownership of a wife’s property to her husband.²⁰⁰ The husband would be the only person entitled to assign, sell, license or otherwise exploit the patent.

Adapting the existing practice of assignment by patent to cover a female identity with the male identity of one’s spouse was a logical response to coverture. For a wife whose only hope of receiving economic benefits from her invention was already indirect, in the form of whatever her husband chose to share with her, allowing her husband to patent her invention as a false inventor

¹⁹⁹ Reva B. Siegel, *The Modernization of Marital Status Law: Adjudicating Wives’ Rights to Earnings, 1860-1930*, 82 GEO. L.J. 2127, 2127 (1994).

²⁰⁰ B. Zorina Khan, *Married Women’s Property Laws and Female Commercial Activity: Evidence from United States Patent Records, 1790-1895*, 56 J. ECON. HIST. 356, 358, 363-64 (1996); see also Siegel, *supra* note 199, at 2130 (following slow shift in presumption that married women owned the products of their own labor that continued through the 1920s); Deborah J. Merritt, *Hypatia in the Patent Office: Women Inventors and the Law, 1865-1900*, 35 AM. J. LEGAL HIST. 235, 290-92 (1991) (noting that in some states, married women faced continued legal disabilities in commercializing inventions into the twentieth century).

simply imported that reality into the patent system, even if it involved a technical violation of patent law. Husbands seeking patents for their wives' inventions as false inventors avoided devaluation of the invention and its commercial potential due to anti-female bias without taking anything from the married woman inventor that state property laws had not already taken from her. Working together, an inventive wife and patentee husband could maximize potential profits. The result, like the use of white male false inventors by Black inventors, was evaporative. Women inventors using this strategy did not simply pass, but were erased, disappearing into the silences of the patent archive.

One whisper that spoke to that silence was the widespread story that Elias Howe, lauded as the inventor of the sewing machine, was only successful after his wife transformed his failed model into a working device.²⁰¹ In a popular lecture delivered over six thousand times at the turn of the twentieth century, Russell Conwell told audiences the story of Howe and his wife, ending with, "Of course he took out the patent in his name. Men always do that."²⁰²

One documented example involves a woman inventor whose inventiveness was included in the patent record only after her attempted assignment by patent to her husband was exposed in an interference proceeding.²⁰³ George Hibbard had applied for a patent to an improved feather duster. When the application was challenged in an interference, George needed to prove that he was the "first" inventor. To do so, he revealed that it had been his wife, Susan, who "suggested the idea." Susan explained that she did not understand the patent laws and had allowed her husband to claim inventorship on the application. The Hibbards won the interference but, following the requirements

²⁰¹ Ann T. Keene, *Howe, Elias (1819-1867), Inventor*, AM. NAT'L BIOGRAPHY (Feb. 2000) (describing Howe as first to get a U.S. patent on a sewing machine and Howe's public legacy as inventor of the sewing machine).

²⁰² RUSSELL H. CONWELL, ACRES OF DIAMONDS 3, 42 (Harper & Brothers 1915) (Project Gutenberg reprt. 2010), <https://perma.cc/AUS9-GBX7> (printing talk as delivered in Philadelphia and noting that details of talk varied with location); see Russell F. Weigley, *Foreword* to RUSSELL H. CONWELL, ACRES OF DIAMONDS vii (Temple University Press 2002) (1870) (noting Conwell delivered talk over six thousand times).

²⁰³ ANNE L. MACDONALD, FEMININE INGENUITY: WOMEN AND INVENTION IN AMERICA xix-xx (1992) (discussing interference resulting in Improvement of Feather Dusters, U.S. Patent No. 177,939 (issued May 30, 1876)). My discussion relies on MacDonald's review of the records of this interference and the others discussed *infra*. I am indebted to her research. Due to COVID-19-induced closure of the National Archives, I have not been able to confirm MacDonald's use of the primary sources.

of inventorship, in 1876 the patent was issued to Susan, the true inventor, rather than to George, undoing the attempted assignment by patent.²⁰⁴

Even sixty years later, after marital property reform, Max Landman claimed falsely to be the inventor when patenting his wife's invention, an umbrella with a transparent pane to improve the vision of its user. When interviewed for a magazine article, Mr. and Mrs. Landman readily explained that it was Eva Landman who had the idea, after dashing across the street in a rainstorm and colliding with a truck, and who perfected the invention while recuperating from her injuries.²⁰⁵ While the Landmans did not reveal their reasoning, for a married woman inventor, consensual assignment by patent to one's husband continued to make business sense, as a means of avoiding bias and stigma. Max, as a man, might also have had better connections and experience to sell or license patent rights or to manufacture the invention.²⁰⁶

We do not know whether Ellen Eglin was married or single when she sold the rights to her invention. The potential devaluation she anticipated was sufficient to lead even an unmarried woman to use a male false inventor, just as Boyd had used a white false inventor. Such calculations might have led Florence W. Parpart, unmarried white woman, to include her financial backer, Hiram D. Layman, as a named co-inventor on her application for a patent to her street sweeper.²⁰⁷ A street sweeper, a large machine expensive to manufacture and often purchased by municipalities, might have been particularly difficult for her to commercialize as a female inventor-patentee. We know that Parpart was the inventor and Layman only an investor because of an article in the *Patent Record*, which reported in 1900 about the street sweeper as "A Woman's Remarkable Invention," explaining Layman's role as investor and his addition to the patent as co-inventor without any comment as to the rules of

²⁰⁴ U.S. Patent No. 177,939 (issued May 30, 1876). Historian Deborah Merritt reports that the Hibbards lost a later interference, as well as a court case, so that Susan Hibbard ultimately lost the patent. Merritt, *supra* note 200, at 297, 297 n.453 (citing *Hibbard v. Richmond*, 1880 Dec. Comm'r Pat. 136 (1880); and then *Nat'l Feather Duster Co. v. Hibbard*, 9 F. 558 (C.C.N.D. Ill. 1881)).

²⁰⁵ MACDONALD, *supra* note 203, at xx (citing *Windshield Umbrella*, INVENTION & FIN., May-June 1936, at 6, 6-7).

²⁰⁶ Lisa A. Marovich, "Let Her Have Brains Too": *Commercial Networks, Public Relations, and the Business of Invention*, 27 BUS. & ECON. HIST. 140, 141 (1998). Cf. BUNDLES, *supra* note 2, at 126 (noting that Madam Walker had superior business skills to those of her husband).

²⁰⁷ See U.S. Patent No. 649,609 (filed Mar. 6, 1899) (issued May 15, 1900) (listing "H. D. Layman & F. W. Parpart" as inventors); MACDONALD, *supra* note 203, at 245 (describing Layman as Parpart's financial backer).

inventorship.²⁰⁸ The practice, even among the patent-knowledgeable community, was seen as uncontroversial, despite the law.

Parpart may not have been the only woman inventor to add a man as co-inventor as a form of partial assignment by patent in order to facilitate investment and commercialization and minimize anti-woman bias and stigma. Patents granted to nineteenth-century women inventors, if they included a co-inventor, overwhelmingly had male co-inventors, both related and unrelated.²⁰⁹ In Parpart's case, the partnership proved a close one, and by 1904 Layman and Parpart had received another patent as co-inventors to an improved street sweeping machine, with Parpart described as "[b]y [m]arriage [n]ow Florence W. Layman."²¹⁰ Hiram later received other patents as sole inventor and assigned a half interest in those to Florence, indicating that the couple understood the assignment process and the distinction between invention and ownership. They treated patent applications for Florence's inventions differently than those for Hiram's inventions, however, even if they intended to share all profits. We can speculate that this savvy couple made the decision to include Hiram as co-inventor on the patents they received to Florence's inventions to maximize commercial potential. While Hiram's name did not completely hide Florence's inventiveness, it did dilute it, reducing bias and stigma.

While stories of married Black women inventors using similar strategies have yet to emerge, we can use these whispers to consider how, if seeking to pass in the patent system, they might have chosen between white and Black men as false inventors, between related and unrelated false inventors, and between giving up all credit and claiming co-inventorship with a false inventor. Each inventor would have chosen based on her individual circumstances, within the universal constraints of racism, sexism, and marital property law.

2. *Ladies and Invention*

While Florence and many other white women allowed themselves to be recognized publicly as inventor-patentees, other white women chose to patent

²⁰⁸ MACDONALD, *supra* note 203, at 245-46 (citing *A Woman's Remarkable Invention*, PAT. RECORD, Sept. 1900, at 8; and *A Woman's Great Work*, PAT. RECORD, Sept. 1900, at 8).

²⁰⁹ Khan, *supra* note 48, at 165, 168 tbl. 1; *see also* Merritt, *supra* note 200, at 246-47.

²¹⁰ U.S. Patent No. 762,241 (filed July 17, 1901) (issued June 7, 1904) (listing "H. D. Layman & Florence W. Parpart (By Marriage Now Florence W. Layman)" as inventors); *see also* MACDONALD, *supra* note 203, at 246 (noting the words "By marriage, now Mrs. F. W. Layman" followed Florence Parpart's name on a patent for an improvement of the street sweeper).

their inventions in the names of men as a means of avoiding any public revelation of their inventiveness, for fear of ridicule and accusations of unwomanliness and lack of gentility.²¹¹ Women not only *could* not invent in the eyes of many, but also *should* not invent, as to do so was to intrude upon masculine domains in ways that jeopardized their femininity and status as ladies, making them into “a monstrosity of unwomanliness.”²¹²

Nineteenth-century women’s rights activists repeatedly referenced that motivation when telling the unprovable story that Catherine Greene, white widowed plantation owner and enslaver, was the true inventor of the improved cotton gin patented by white Northerner Eli Whitney in 1794.²¹³ As a lady, Catherine risked “contumely” if she let it be known that she was the source of the invention, at least according to white suffragist Matilda Joslyn Gage.²¹⁴ Better to let Whitney receive the public designation as inventor rather than risk her reputation. If this story was true, Greene combined passing by false inventor with an indirect method of seeking profits from her invention: her second husband, Phineas Miller, was an investor in Whitney’s invention.²¹⁵

Another late-eighteenth-century white woman inventor left her own statement that she had avoided the patent system for reputational reasons. Decades after inventing a new method of braiding straw that was widely used in the bonnet-making industry, Betsy Metcalf Baker wrote that while she was urged to patent her idea, “I did not wish to have my name sent to Congress.”²¹⁶

White women’s rights activists were keenly aware of the patent archive silences surrounding women’s inventiveness. Eunice Foote, a white suffragist

²¹¹ MARY ANDERSON, BULLETIN OF THE WOMEN’S BUREAU, NO. 28: WOMEN’S CONTRIBUTIONS IN THE FIELD OF INVENTION: A STUDY OF THE RECORDS OF THE UNITED STATES PATENT OFFICE 9, 12 (1923) (noting that while the actual number of patents granted to women inventors was found to be “small” compared to the number granted to men, hundreds were granted to women each year by the turn of the twentieth century).

²¹² FRANCES E. WILLARD, OCCUPATIONS FOR WOMEN 350 (N.Y.C., The Success Company 1897). For questions of gender and class in public spaces in general, and within the patent office in particular, see Kara W. Swanson, *Rubbing Elbows and Blowing Smoke: Gender, Class, and Science in the Nineteenth-Century Patent Office*, 108 *ISIS* 40 (2017).

²¹³ Matilda Joslyn Gage, *Woman As an Inventor*, 136 *N. AM. REV.* 478, 482-83 (1883); Charlotte Smith, *History of Patents Granted*, *THE WOMAN INVENTOR* (D.C.), Apr. 1891; WILLARD, *supra* note 212, at 349-50.

²¹⁴ Gage, *supra* note 213, at 483.

²¹⁵ WILLARD, *supra* note 212, at 350.

²¹⁶ Letter from Betsy Metcalf Baker to Helen Rowe Metcalf (Feb. 11, 1858) (on file with the Rhode Island Historical Society, Betsy Metcalf Baker Papers Collection) (giving account of how she learned to braid straw a half-century earlier); see also Letter from Betsy Metcalf Baker to Helen Rowe Metcalf (Feb. 11, 1858), reprinted in Jane Lancaster, *‘By the Pens of Females’: Girls’ Diaries from Rhode Island, 1788-1821*, 57 *R.I. HIST.* 59, 82 (1999) (transcribing quote as “I did not work to have my name sent to congress.”).

and inventor-patentee, gave fellow suffragist Elizabeth Cady Stanton a tour of the patent office display of inventions in 1860, remarking “that she had no doubt that half the patents there were the inventions of women; but as men had the money to get up the models and loved notoriety, they had been taken out in their names.”²¹⁷ Claiming “inventor” status was a form of “notoriety” that was incompatible with femininity, indicating an unladylike accomplishment. In 1893, a speaker at the World Congress of Women noted that the “nearest male relatives and friends” of a woman inventor would “advise[] her to patent it in the name of some man, as it would not be compatible with womanly modesty to attain such notoriety as a patent to herself would bring.”²¹⁸

Evidently, women listened to such advice, for in 1923 the Women’s Bureau, a new government agency considering women’s work opportunities, investigated “women’s contributions in the field of invention” since 1905 and concluded that women were continuing to allow male relatives “to perfect their ideas . . . and secure the patents,” depressing the number of female patentees.²¹⁹ Even in 1935, Eva Landman might have demurred at having her name sent to the patent office. Well into the twentieth century, an unwritten rule of decorum decreed that a lady’s name only appeared in the newspaper three times: at her birth, upon her marriage, and at death.²²⁰ Otherwise, she was to avoid public attention.

These stories were told by and about white women, and they expose what cannot be understood without centering the experience of Black women inventors.²²¹ Eglin spoke about herself as a “[Black] woman” and about her potential customers as “white ladies.” The status of “lady” encapsulated class-based femininity that was also highly racialized. According to historian Allyson Hobbs, “ladies” was a category “that excluded even the wealthiest and most

²¹⁷ Elizabeth Cady Stanton, *Washington*, REVOLUTION (N.Y.C.), Apr. 16, 1868, at 226; U.S. Patent No. 28,265 (issued May 15, 1860).

²¹⁸ Laura de Force Gordon, *Woman’s Sphere from a Woman’s Standpoint*, in 1 THE CONGRESS OF WOMEN 74, 75 (Mary Kavanaugh Oldham Eagle ed., Chicago, Monarch Book Company 1894); see also DENISE E. PILATO, THE RETRIEVAL OF A LEGACY: NINETEENTH-CENTURY AMERICAN WOMEN INVENTORS 5 (2000) (quoting 1898 *Popular Science Monthly* article about “sarcasm and dislike” directed at women in technology or science).

²¹⁹ ANDERSON, *supra* note 211, at 5.

²²⁰ DIANA KENDALL, FRAMING CLASS: MEDIA REPRESENTATIONS OF WEALTH AND POVERTY IN AMERICA 26 (2011).

²²¹ See Crenshaw, *supra* note 9, at 152-56 (using the story of Sojourner Truth’s “Ain’t I a Woman” speech to expose the reliance of white feminists on their racial privilege in their critique of patriarchy and noting the exclusion of Black women from the “separate spheres ideology”).

refined black women.”²²² While the white women suffragists and Women’s Bureau workers decried the social norms that inhibited white women’s patent system participation, Eglin analyzed her experience as a Black woman inventor living within an intersection of anti-Black racism and sexism. Each Black woman inventor, navigating her own path, factored in the threat to her femininity and class status in her own way. Knowing their class status was always precarious, middle-class Black women such as Gertrude Mossell worked to maintain their hard-won respectability.²²³ Like white inventor Betsy Metcalf, some Black women inventors, perhaps including Mossell, might have decided that a patent was not worth the possible reputational cost. Eglin, who reportedly told Smith of her plans to patent her next invention in her own name, might have adhered to “working class notions of respectability . . . that foregrounded economic survival.”²²⁴ Her decision not to patent her clothes wringer herself might have had little to do with defending her femininity and much more to do with maximizing cash in her pocket.

Women’s inventions, in the view of the Women’s Bureau in 1923, were met with “indifference, unbelief, or hostility.”²²⁵ As a Black woman inventor, Eglin navigated a raced and gendered terrain shaped by the laws of coverture and the history of racial slavery in which all options entailed a cost.

IV. APPROPRIATION BY PATENT

Passing is intended to leave no trace.²²⁶ These anecdotes of passing in the patent system illuminate in unquantifiable ways the absence of marginalized inventors in the patent archive, silences that grew over time. Successful uses of assignment by patent to unrelated white male investors or to husbands can only be found in the names that are not there, including those of Eglin, Boyd, and Greene.

The stories I have related are marked by an utter inattention to, and the absence of any evidence regarding, negative legal consequences for using a false inventor. Parpart and the Landmans were willing to reveal their strategy

²²² HOBBS, *supra* note 26, at 12.

²²³ For the politics of respectability as applied to turn-of-the-twentieth-century Black women, see Paisley Jane Harris, *Gatekeeping and Remaking: The Politics of Respectability in African American Women’s History and Black Feminism*, 15 J. WOMEN’S HIST. 212, 213, 216 (2003).

²²⁴ *Id.* at 214 (quoting VICTORIA W. WOLCOTT, REMAKING RESPECTABILITY: AFRICAN AMERICAN WOMEN IN INTERWAR DETROIT (2001)).

²²⁵ ANDERSON, *supra* note 211, at 5.

²²⁶ HOBBS, *supra* note 26, at 6; see also Jordan, *supra* note 142, at 221 (noting that passing leaves only limited and unconventional sources behind).

to a reporter, and even Susan Hibbard, who was revealed in a legal proceeding as having attempted to patent her invention via a false inventor, was able to claim her patent.²²⁷ Even without reported cases of patent invalidation caused by racial or gender passing in the patent system, passing was not without other harmful consequences.

The raced and gendered use of false inventors resulted not only in an absence of marginalized true inventors in the patent archive, but also in their consistent replacement with white male false inventors. The patent records, the most obvious source of information on inventive contributions, thus became ever-amplifying documentation that invention and patenting were the domain of white men. Each inventor who passed as a white man strengthened the plausibility of the false but widespread belief that marginalized peoples were incapable of invention.²²⁸ Passing, while sometimes successful for individuals like Boyd, cumulatively strengthened biases. These biases not only made it more difficult for marginalized inventors to obtain patents and commercialize inventions, but also made it more difficult for marginalized inventors to fight appropriation by patent, that is, the nonconsensual use of patents by non-inventors to claim ownership of their inventions.

Patent law has always addressed such theft. As described in Part II, the true inventor requirement is enforced by procedures to determine inventorship and strip patents from non-inventors. Yet when we consider the legal tools to fight appropriation from the perspective of archival silences and imagine how Ellen Eglin, as a Black woman, might have used them, we realize that, like the true inventor doctrine itself, they became raced and gendered in practice.

²²⁷ Susan's patent was short-lived. Although she received U.S. Patent No. 177,939 after the first interference, even though George had originally applied for the patent in his name as false inventor, a court later opined that Susan should be estopped from claiming that she was the true inventor because she knew that George had earlier taken out another feather duster patent and sold a portion of his patent rights to investors. *Nat'l Feather Duster v. Hibbard*, 9 F. 558, 559-61 (C.C.N.D. Ill. 1881) (accepting investors' claim that Susan and George colluded to obtain the second patent in her name in order to circumvent the rights George had previously sold and holding that Susan was not the true inventor).

²²⁸ See ANDERSON, *supra* note 211, at 2 (referencing "prevailing disbelief in the creative abilities of women"); BAKER, *supra* note 134, at 3 (quest for Black inventors regarded as "joke"); see also VATS, *supra* note 13, at 3, 10 (describing the promulgation of "racial scripts" about inventiveness); Rosenblatt, *supra* note 13, at 595 (noting how copyright law's "one-way racial appropriation ratchet" sends a racialized message about who is creative); Swanson, *Inventing the Woman Voter*, *supra* note 9, at 560-61, 564-65 (reviewing discussion of belief that women could not invent); Swanson, *Race and Selective Legal Memory*, *supra* note 13, at 1111-12 (discussing belief that Black Americans could not invent).

A. *Slavery and Appropriation*

From the first years of the U.S. patent system, some true inventors used the judicial repeal process to fight nonconsensual appropriation by patent, even as others participated willingly in assignment by patent. Historian Christopher Beauchamp has used unpublished case records to demonstrate how some true inventors successfully argued that a false inventor-patentee had learned about their invention and then “surreptitiously” obtained a patent.²²⁹ Between 1793 and 1836, when the U.S. patent system did not have any pre-grant examination, “imposters” and “fraudulent projectors” might easily obtain patents to improvements they had not invented.²³⁰ The repeal process offered a means of winnowing such false inventors from the patent archive.

Despite uncertainty about the scope of the “true inventor” designation and about the repeal process itself, no one doubted that the law prohibited such false inventors and that courts could strip them of patent rights.²³¹ The patent law, the courts agreed, should not be used for appropriation of inventions. These cases, however, turned on he said/he said testimony provided by the white men who were the near-exclusive participants in the patent system. Men testified about the conversations they had that allowed non-inventors to learn about an invention in sufficient detail to file a patent application, while the patentee described how they had developed the invention.²³² If the man claiming to be the true inventor was more credible, the patent was repealed. If the true inventor was a marginalized inventor fighting appropriation by a white man, however, the playing field for such contests was far from level.

This failure of the patent system was most extreme in the case of enslaved inventors. By law, enslaved people were forbidden to testify against white people in court.²³³ Such laws, combined with the social structures of terror and violence that guided every interaction between Black and white in slave society, rendered legal proceedings to fight appropriation unavailable to enslaved inventors. Rather, despite the established law of inventorship with its

²²⁹ Beauchamp, *supra* note 39, at 675-76 (discussing unreported cases *Stone v. Olds* (D. Mass. 1811) and *Kelley v. Rapp* (S.D.N.Y. 1816)).

²³⁰ Beauchamp, *supra* note 39, at 678 (quoting *Thompson v. Haight*, 23 F. Cas. 1040, 1041 (S.D.N.Y. 1822)).

²³¹ *Id.* at 664, 667-669 (suggesting that a narrow interpretation of repeal provision was that fraud, that is, deliberate deception, warranted repeal but that a broader interpretation, including mistaken belief of true inventorship, was also possible grounds for repeal).

²³² *Id.* at 676.

²³³ ARIELLA J. GROSS, *DOUBLE CHARACTER: SLAVERY AND MASTERY IN THE ANTEBELLUM SOUTHERN COURTROOM* 37, 42 (2001).

distinction between true and false inventors, the patent system could be easily used, like other aspects of U.S. law, to transfer the benefits of the labor of Black people to their white enslavers.²³⁴

Any white person could file an application falsely naming themselves as the true inventor without fear of legal challenge by an enslaved inventor. Further, other enslavers would have agreed that just as an investor who had entered into an agreement with an inventor for ownership rights was permitted to claim “true inventor” status under assignment by patent, the legal owner of an enslaved inventor was similarly entitled to “stand[] in the place of the original inventor” to apply for and receive a patent.²³⁵ To white owners of enslaved inventors, this practice was the permissible assignment by patent of rights given to them by the laws of slavery and property, rather than an unlawful attempt to appropriate an invention from its originator. They argued that, like the taking of an enslaved person’s physical and reproductive labor, no consent was needed to assert ownership over their mental creations.

It was a failed attempt to use the patent system to appropriate legal rights to the invention of an enslaved man that created the clearest articulation of this reasoning. In 1857, a white Mississippi lawyer and enslaver, Oscar, decided that rather than simply claim the status of true inventor in an application to patent an invention of his slave, he would force the patent system to agree that because he owned “the fruits of the labor of a slave both intellectual and manual,” in order to get full “value” he was entitled to secure a patent to their invention.²³⁶ Admitting that an enslaved blacksmith he called “Ned” created the double plow and scraper he sought to patent, Oscar argued that by swearing that the tool was a new invention created by Ned and that he was Ned’s owner, Oscar should be able to receive a patent as the true inventor. This proposed revision of the true inventor’s oath was ultimately rejected. The U.S. Patent Office refused Oscar’s application, and when Oscar complained about this “monstrous” result, the Attorney General agreed with the Commissioner of Patents, reiterating the rule that patents granted to false inventors were

²³⁴ Harris, *supra* note 27, at 1718-20.

²³⁵ Patent Act of 1793, ch. 11, § 4, 1 Stat. 318-323 (amended 1800) (repealed 1836).

²³⁶ Letter from Oscar J.E. Stuart to Jacob Thompson, Secretary of the Interior (Aug. 25, 1857), *reprinted in* John Boyle, *Patents and Civil Rights in 1857-8*, 42 J. PAT. OFF. SOC’Y 789, 789-90 (1960). To avoid reinscribing the power that allowed an enslaver to deny the enslaved more than one name, I refer to the enslaver also solely by his first name.

unenforceable: “if such a patent were issued to the master, it would not protect him in the courts against persons who might infringe it.”²³⁷

While Oscar was stymied in his quest (although he proceeded to commercialize Ned’s invention without a patent), appropriation by patent from enslaved inventors could and probably did continue to occur with impunity as long as the enslaver signed the oath of inventorship without revealing the participation of the true inventor.²³⁸ As Oscar wrote, if Ned dared to communicate with the patent office himself, “for such impertinence, you know according to our southern usage, I would correct him”—a veiled reference to Oscar’s legal right to punish Ned with any amount of violence he chose.²³⁹ Africans had brought technical knowledge with them on the Middle Passage, such as methods of cultivating and processing rice, and developed additional knowledge in their forced labors for their owners. Like any other population, the enslaved population included inventors of patentable inventions.²⁴⁰ Yet the patent records are silent about the inventiveness of enslaved women and men.

There are, however, whispers into these archival silences in the form of stories. Black oral tradition, for example, asserts that it was not Catherine Greene, but rather an enslaved Black laborer, who gave Whitney the idea for the improved cotton gin.²⁴¹ Such a laborer would have been more likely than the white mistress or the visiting Yankee to have had familiarity with the existing process of ginning cotton. There are also stories of an enslaved inventor helping Cyrus McCormick invent his mechanical harvester and another pioneering a breakthrough in tobacco curing, as well as of enslaved persons contributing to numerous lesser known inventions. These stories talk back to the seeming absence of inventiveness among the Black community.²⁴² The

²³⁷ *Invention of a Slave*, *supra* note 191, at 172; *see also* SLUBY, *supra* note 150, at 32-33 (detailing another unsuccessful attempt by white enslavers to patent an invention of a slave in their own name). Note that this opinion also implied that no free Black was eligible to receive a patent. Frye, *supra* note 192, at 194.

²³⁸ JAMES, *supra* note 151, at 51 (reproducing advertisement of Ned’s invention for sale by Oscar).

²³⁹ *Invention of a Slave*, *supra* note 191, at 172.

²⁴⁰ JAMES, *supra* note 151, at 17-25 (describing technologies brought to North America by Africans); *id.* at 47-48 (discussing craft skills learned during enslavement); *id.* at 53-54 (discussing surviving anecdotes of enslaved inventors).

²⁴¹ BAKER, *supra* note 134, at 6 (noting persistence of story and unsuccessful attempt to substantiate it); *see also* Keith Aoki, *Distributive and Syncretic Motives in Intellectual Property Law (with Special Reference to Coercion, Agency and Development)*, 40 U.C. DAVIS L. REV. 717, 745-47 (2007) (citing JAMES, *supra* note 151, at 54-55); SLUBY, *supra* note 150, at 12-15 (detailing the repetition of the story by twentieth-century Black authors).

²⁴² JAMES, *supra* note 151, at 53-54; SLUBY, *supra* note 150, at 15; *see also* Frye, *supra* note 192, at 187-88.

generation of Black Americans who emerged from slavery believed that “[h]undreds of slaves invented instruments which have been taken by their masters and patented.”²⁴³ Each such story is a whisper of an appropriation by patent that a true Black inventor could not fight within the patent system.

B. *Fighting Appropriation*

Even without the heavy burdens of slavery, free Black women and men and white women faced barriers that hampered their ability to oppose appropriation by patent. As early as the colonial period, laws prohibited free Blacks from testifying against whites.²⁴⁴ As discussed above, married women also faced legal disabilities imposed by the law of coverture, unable to own property or to enter into contracts.²⁴⁵ These legal barriers gradually fell during the nineteenth century, allowing Black Americans and married Black and white women to own property and access the patent system and the courts.²⁴⁶ Yet if a white man pilfered an idea generated by a free Black woman or man or by a white woman, the true inventor still faced a daunting task. In 1890, if Eglin had found her clothes wringer patented by someone who had not paid her for the rights, she would have faced Jim Crow laws, disparities in resources, anti-Black racism and sexism, and patent law itself as barriers to fighting appropriation, despite the increasing clarity of the principle that only true inventors were entitled to patents.²⁴⁷

An inventor who learned of someone else seeking to patent or having already patented their invention needed either to file a patent application themselves, necessary to provoke an interference, or bring a lawsuit to invalidate the patent. Both options required financial resources, which marginalized inventors often lacked.²⁴⁸ Should they initiate such a proceeding,

²⁴³ SIMMONDS, *supra* note 146, at 112. Born enslaved, Simmonds might have had first-hand knowledge of such instances. *Id.* at 39.

²⁴⁴ IRA BERLIN, *SLAVES WITHOUT MASTERS: THE FREE NEGRO IN THE ANTEBELLUM SOUTH* 7, 96, 317 (1974).

²⁴⁵ B. ZORINA KHAN, *THE DEMOCRATIZATION OF INVENTION: PATENTS AND COPYRIGHTS IN AMERICAN ECONOMIC DEVELOPMENT, 1790-1920*, at 161-64 (2005).

²⁴⁶ U.S. CONST. amends. XIII, XIV, XV; KHAN, *supra* note 245, at 166-68.

²⁴⁷ See Lisa D. Cook, *Inventing Social Capital: Evidence from African American Inventors, 1843-1930*, 48 *EXPLORATIONS ECON. HIST.* 507, 507-08, 516 (2011) (segregation laws correlated with decreased patenting).

²⁴⁸ Note that lack of financial resources was only one possible barrier to both invention and patenting by marginalized individuals. FOUCHE, *supra* note 195, at 13-14 (describing barriers to Black inventors, including lack of financial resources); Merritt, *supra* note 200, at 289-305 (detailing barriers to women inventors, both white and Black, including limited financial resources); PILATO, *supra* note 218, at 2-8 (describing non-monetary barriers to women inventors).

patent law itself created hurdles. While intended to reward only the true inventor, patent law also protects patentees. If a false inventor applies for a patent, the patent office will not *sua sponte* examine inventorship.²⁴⁹ Once a patent is issued, it is presumed valid.²⁵⁰ When challenging appropriation by patent, the true inventor thus has the burden to prove that the patentee falsely asserted inventorship. While patent validity is routinely successfully challenged on other grounds, overcoming this presumption with respect to inventorship presents an obstacle even to white male challengers.²⁵¹ Marginalized inventors entered the patent office and courtrooms to face decision makers who did not share their race or gender. In those spaces, they had the dual challenge of meeting their legal burden of proof and overcoming the settled belief of predominantly white male patent examiners, judges, and jurors that white women and persons of color could not and did not invent, a belief reinforced by the patent archive itself.

While Eglin did not relate a tale of appropriation by patent, her strategic choices indicate how she might have assessed her chances of fighting such appropriation as a Black woman. To understand how other Black women inventors disappeared from the patent archive due to appropriation by patent, we can listen to whispers that offer hints of how Black men and white women fought appropriation.

3. *Fighting Appropriation as a Black Man*

A prolific Black inventor of electrical technologies, Granville Woods received forty-five U.S. patents between 1884 and 1907.²⁵² Woods obtained seventeen of these patents only after winning interference proceedings.²⁵³ To achieve these results, Woods survived violence and imprisonment.

²⁴⁹ Aaron X. Fellmeth, *Conception and Misconception in Joint Inventorship*, 2 N.Y.U. J. INTELL. PROP. & ENT. L. 73, 76 (2012); see also John O. Tresansky, *Inventorship Determinations*, 56 J. PAT. OFF. SOC'Y 551, 552 (1974) ("inventorship determinations do not appear to be given the same attention as other conditions for patentability").

²⁵⁰ 35 U.S.C. § 282. *But see* Benton Baker, *Outline of Patent Office Interference Practice – Part II*, 36 J. PAT. OFF. SOC'Y 185, 185 (1954) (in pre-AIA interference proceeding, burden of proof was placed on junior party based on date application was filed).

²⁵¹ Bruce M. Collins, *The Significance of Inventorship Determinations for Foreign and Domestic Inventors*, 7 APLA Q.J. 117, 117 (1979) ("incorrect inventorship is . . . a highly technical and formal defense, not generally regarded by courts with favor").

²⁵² FOUCHÉ, *supra* note 195, app. at 186-87 (listing Woods' patents). The following discussion is indebted to Fouché's discussion of Woods in his group biography of three prominent turn-of-the-twentieth-century Black inventors. *Id.* at 26-81 (devoting chapter to Granville T. Woods).

²⁵³ *Id.* at 51.

Woods was the victim of an attempted appropriation by patent by a white business partner in 1891, when a planned arrangement to develop an electric railway system collapsed among multiple deceptions that Woods testified later amounted to a “clean steal of the whole system.”²⁵⁴ When Woods confronted his partner about missing drawings, the partner struck him in the back of the head and, when Woods “responded” to this attack, the partner’s son joined the fray, attempting to choke Woods.²⁵⁵ Woods took his fight to the press, publishing announcements in trade publications stating that his former partner had stolen Woods’ inventions and was wrongfully commercializing the railway technology and seeking patents.²⁵⁶ The false inventor then had Woods arrested for criminal libel, and Woods spent at least four days in jail, unable to raise the \$500 bail.²⁵⁷ Woods’ biographer, Rayvon Fouché, noted that the newspaper coverage of the dispute treated Woods not as an inventor, but as “a Negro,” as if those categories were mutually exclusive.²⁵⁸ The libel prosecution in police court became the legal forum in which Woods fought to prove his status as true inventor. After Woods brought in another white investor to testify that Woods was the originator of the stolen invention plans, the jury acquitted Woods of libel, finding that Woods’ public accusations of theft were true.²⁵⁹

While Woods is sometimes referred to as the “Black Edison,” white Thomas Edison did not need to fend off murderous attacks when he fiercely defended his ownership rights, nor was he ever jailed by a business rival.²⁶⁰ Like Edison, Woods sought to control commercialization of his inventions by organizing his own businesses and working with multiple partners and investors, but he never achieved Edison’s financial success. Despite his patents, Woods spent “the majority of his adult life marginalized as an inventor, desperately struggling to secure funding and gain a respectable reputation for his work.”²⁶¹

Humphrey H. Reynolds, a Black porter on Pullman railroad cars, did not try, as did Woods, to make a living as an inventor, but he did fight to control the

²⁵⁴ *Id.* at 60 (quoting testimony in a later interference case). Based on extensive research in interference records, Fouché recounts the history of the dispute in detail. *Id.* at 55-74.

²⁵⁵ *Id.* at 61 (quoting Woods’s testimony).

²⁵⁶ *Id.* at 65-66.

²⁵⁷ *Id.* at 66.

²⁵⁸ *Id.* at 79.

²⁵⁹ *Id.* at 66.

²⁶⁰ *Id.* at 6 (noting nickname); ISRAEL, *supra* note 184, *passim* (detailing Edison’s various strategies of invention and commercialization); *see also* FOUCHÉ, *supra* note 195, at 79-81 (comparing Woods to Edison, who also had “trying times” in his early career, while considering “what it was like to be an African American inventor”).

²⁶¹ FOUCHÉ, *supra* note 195, at 27.

invention he developed while performing his job. Reynolds invented a ventilator for railcar windows that would allow air into the car while keeping cinders out. When Reynolds' employer appropriated his invention by installing the ventilator in its cars without compensating him, Reynolds successfully used the patent system to fight the nonconsensual use of his invention, getting a patent in 1883 and reportedly obtaining infringement damages of \$10,000.²⁶² Although, like Woods, Reynolds entered the legal system as "a Negro" and faced anti-Black biases, he had the advantage of entering the courtroom in a role—Pullman porter—that was considered an appropriate job for Black men. He also, as a patentee, had the presumption of validity in his favor, certification of his status as inventor. Still, his victory was rare enough to be considered a newsworthy triumph by the Black press.²⁶³

Elbert R. "Doc" Robinson was less successful in fighting his employer. Robinson, a Black blacksmith and steelworker, patented multiple inventions in his own name but found that what he thought might be his most valuable invention had been stolen by his employer. To finance his fight to regain control of the invention, he formed a consortium and sought damages of \$1 million. After many years of litigation, the consortium reportedly settled for much less, much of which was owed to their attorneys.²⁶⁴

The difficulty of financing such fights against better-resourced adversaries defeated another Black inventor, Henry A. Bowman. Bowman obtained a patent in 1892 and initially used it to establish a successful flag-making company.²⁶⁵ Later, however, Bowman was forced out of business by competitors he believed were infringing his patent, but whom he lacked the resources to sue.²⁶⁶

These Black male inventors did not use passing as a strategy to engage with the patent system, but instead fought to claim, control, and commercialize their inventions as Black men. The patent record, even though it includes their names as inventor-patentees, is silent about the battles they fought before and after earning patents to prevent others from appropriating the benefits of their inventiveness, battles in which they had to fight against anti-Black bias while seeking to claim the status of inventor. Their tales of limited success are the whispers that help us read the silences of the archive. Hidden in those silences

²⁶² U.S. Patent No. 275,271 (issued Apr. 3, 1883); *Some Afro-American Inventors: Patents that Have Been Taken Out by Colored Men*, *BALT. AFRO-AMERICAN*, Nov. 2, 1895, at 1.

²⁶³ *Id.*

²⁶⁴ SLUBY, *supra* note 150, at 74-77.

²⁶⁵ U.S. Patent No. 469,395 (issued Feb. 23, 1892); JAMES, *supra* note 151, at 60.

²⁶⁶ JAMES, *supra* note 151, at 60.

are other Black inventors, women and men, who fought like Woods and Reynolds, only to lose arguments made to fact-finders who refused to consider that a Black person could also be an inventor. Also hidden are those who lacked the resources to obtain patents and/or to launch a fight against an appropriator.

Passing would have launched each of these inventors on another path, giving up a public claim to “inventor” status. Lewis Latimer, Woods’ contemporary, chose a middle ground, neither passing nor fighting appropriation. Instead, he created his own strategic approach to the racialized terrain of the patent system.²⁶⁷ Like Woods, Latimer was a skilled inventor in electric technologies.²⁶⁸ He achieved financial success through his technical abilities by working in invention-adjacent jobs. He became an employee of Edison in 1885, working as a patent draftsman and as an expert witness for the Edison Electric Light Company in patent infringement cases.²⁶⁹ While Latimer continued to invent, he was under an obligation to offer a right of first refusal to his employer. He thus obtained a steady salary as well as ready access to a well-resourced potential purchaser who could fight appropriation if necessary, freeing him from financial dependence on invention commercialization.²⁷⁰

Through these choices, which allowed him to maintain skilled employment at a time when Black Americans found such opportunities scarce, Latimer also partially silenced himself. His expertise redounded to the benefit of Edison. Rather than attempt to become a “Black Edison,” Latimer took pride from his status as the only Black member of the “Edison Pioneers,” a group of Edison employees formed to remember their association with Edison in the early days of his technological triumphs, a form of reflected glory.²⁷¹ Fighting appropriation as a Black man sometimes included choosing to avoid the battle.

4. *Fighting Appropriation as a White Woman*

Eglin, too, avoided possible appropriation battles when she sold her invention. She could concentrate on her daily struggle for economic security rather than the uncertain rewards of entrepreneurship. Scattered stories of

²⁶⁷ I am again indebted to Fouché, who included discussion of Latimer in his group biography. FOUCHÉ, *supra* note 195, at 82-133 (devoting chapter to Lewis H. Latimer). Fouché terms Latimer’s strategy “technological assimilationism.” *Id.* at 82.

²⁶⁸ *Id.* at 88-91, 96-97.

²⁶⁹ *Id.* at 103-06.

²⁷⁰ *Id.* at 109.

²⁷¹ *Id.* at 118.

white women fighting appropriation by patent provide a reminder that Eglin's choices were constrained by gender as well as race, as gender passing in the patent system fed assumptions that "woman" and "inventor" were also mutually exclusive categories.

Susan Hibbard, as discussed above, was not a victim of appropriation. She had allowed her husband George to file a patent application to her feather duster. When George was forced to admit that it was his wife who had come up with a new method of splitting feathers, however, Susan found herself testifying in the interference proceeding in the role of true inventor, in a she said/he said confrontation.²⁷² The rival inventor's attorney scoffed at Susan's claim of inventorship, arguing that she was trying to perpetrate a fraud. Susan admitted to having "no particular occupation," but spoke as a woman and wife at a time when plucking poultry and dusting were women's work.²⁷³ She claimed to "know a lot about feathers."²⁷⁴ She also had records of developing her duster as she tried different approaches and the testimony of a man, her husband, to corroborate her story. In this case, Susan was able to overcome the suggestion that she was incapable of invention and gained the patent.²⁷⁵

Like Woods relying on the testimony of a white colleague, Susan gained support not by passing as a white man, but rather by using one to bolster her credibility. She also, like Reynolds, had the benefit of presenting her invention as stemming from her performance of a socially approved role. Fighting for patent rights as a marginalized inventor required minimizing the anticipated clash between one's marginalized identity and true inventor status.

Harriet Tracy lacked these advantages when she sought unsuccessfully to foil an appropriation attempt in the 1870s.²⁷⁶ After inventing a combination bureau and trunk, Tracy offered a man a half-share in return for the funds to get it patented. She was an experienced inventor-patentee, with an earlier

²⁷² MACDONALD, *supra* note 203, at xix-xx.

²⁷³ *Id.* at xx. See also RUTH SCHWARTZ COWAN, MORE WORK FOR MOTHER: THE IRONIES OF HOUSEHOLD TECHNOLOGY FROM THE OPEN HEARTH TO THE MICROWAVE 18, 20, 26 (1983) (noting that housework varied depending on time, location, and class, but in the nineteenth century it was almost uniformly women's work).

²⁷⁴ MACDONALD, *supra* note 203, at xx.

²⁷⁵ *But see* Hibbard v. Richmond, 1880 Dec. Comm'r Pat. 136, 140 (1880) (detailing Susan's subsequent loss of patent, when her interference opponent was able to present written evidence of earlier invention); Nat'l Feather Duster Co. v. Hibbard, 9 F. 558, 561 (C.C.N.D. Ill. 1881) (downplaying Susan's contribution and finding that although Susan "made a valuable suggestion" to George, she was not "the inventor").

²⁷⁶ MACDONALD, *supra* note 203, at 61-63 (citing Patent and Trademark Office, Patent Interference Case Files, 1838-1905 (on file National Archives, Federal Records Center)); Khan, *supra* note 48, at 184.

patent to her name, but, like the white men who had pioneered the use of false inventors, she used the practice to attract an investor, anticipating that a half-share of profits would provide a better return than an upfront payment for all rights, such as Eglin had negotiated.²⁷⁷ According to their agreement, Tracy allowed her partner to patent the invention in his name as true inventor, only to have him renege on their deal and claim full ownership rights. To fight this appropriation, Tracy filed her own application, provoking an interference. Tracy explained that she had allowed the investor to take out the patent in his name because “[w]omen cannot always do just as they would.”²⁷⁸ Her attempts to prove that she was the true inventor, however, failed. The false inventor’s lawyer called Tracy a “confidence woman” who was the real appropriator, and when Tracy could not offer any evidence of her inventive process other than a “nighttime moment of flash of thought,” the Commissioner ruled for her erstwhile partner, and she lost all rights to her invention.²⁷⁹

Louise McLaughlin, a well-to-do white woman, found herself the victim of an attempted appropriation by patent even without seeking an investor.²⁸⁰ McLaughlin, a ceramicist, invented a new underglaze technique.²⁸¹ Rather than seek a patent, McLaughlin taught her technique to others in Cincinnati, Ohio and published an instructional manual.²⁸² Her pupils, like McLaughlin herself, were women affiliated with the Arts and Crafts movement, a loose coalition of artisans and artists that allowed women to take prominent roles, as their beautification work was seen as an appropriate extension of women’s homemaking responsibilities.²⁸³

McLaughlin was startled when a newcomer to Cincinnati began selling pottery decorated by her technique. The local press reported that Thomas

²⁷⁷ U.S. Patent No. 74,865 (issued Feb. 25, 1868). *Cf.* PILATO, *supra* note 218, at 15 (describing the combination bureau and trunk as Tracy’s first invention).

²⁷⁸ MACDONALD, *supra* note 203, at 62.

²⁷⁹ *Id.* at 62-63. Tracy went on to patent other inventions in her own name, to claim credit by placing her own name “prominently” on her patented machines, *id.* at 63, and to lose another interference against a rival inventor, *id.* at 181-84; *accord* PILATO, *supra* note 218, at 17.

²⁸⁰ My account of McLaughlin’s career, her inventions, and the dispute draws from CATHERINE W. ZIPF, *PROFESSIONAL PURSUITS: WOMEN AND THE AMERICAN ARTS AND CRAFTS MOVEMENT 60-79* (2007) and MACDONALD, *supra* note 203, at 131-32.

²⁸¹ *See* ZIPF, *supra* note 280, at 64-65 (describing invention as underglaze technique); *see also* ALICE COONEY FRELINGHUYSEN, *AMERICAN PORCELAIN, 1770-1920*, at 60, 266 (1989) (describing McLaughlin’s contributions). *But see* MACDONALD, *supra* note 203, at 131-32 (describing invention as a new method of painting china).

²⁸² LOUISE McLAUGHLIN, *POTTERY DECORATION UNDER THE GLAZE* (Cincinnati, R. Clarke 1880).

²⁸³ ZIPF, *supra* note 280, at 1-2, 55, 66-67.

Wheatley claimed that he was the first and true inventor and that he had already applied for a patent.²⁸⁴ The reporter added that Wheatley was prepared to sue anyone using his invention, including McLaughlin. McLaughlin, though, had a man to vouch for her. Her brother, a local businessman, defended her to the press, describing how he had recorded her experiments and could document her invention, and warning Wheatley that “[i]t is very easy to get a patent, but it is hard to sustain one.”²⁸⁵

Wheatley’s patent issued in September 1880, but there are no reported legal proceedings.²⁸⁶ McLaughlin evidently did not sue him or seek an interference, nor did Wheatley apparently follow through on his threat of litigation.²⁸⁷ After this experience, McLaughlin patented a later method she developed, undoubtedly hoping to avoid another attempted appropriation by patent.²⁸⁸

Laura Fry, another white potter working in Cincinnati, also fought the attempted appropriation by patent of a pottery method she had invented. Fry described her employer as first disparaging and then attempting to patent in his own name her new technique to apply color to soft clay. After a ten-year battle, the patent office concluded that the technique was not a patentable invention, regardless of whose idea it had been.²⁸⁹ Fry’s efforts to avoid appropriation by patent must have cost her considerable money, resources unavailable to many marginalized inventors.

Amid these whispers suggesting that some of the silences of the patent archive stem from the gendered aspects of appropriation fights, there is also an example of an early woman inventor successfully wresting back the patent to her invention from a male appropriator.²⁹⁰ Margaret Knight, a young unmarried

²⁸⁴ *Id.* at 69.

²⁸⁵ MACDONALD, *supra* note 203, at 132.

²⁸⁶ U.S. Patent No. 232,791 (issued Sept. 28, 1880); ZIPF, *supra* note 280, at 69.

²⁸⁷ ZIPF, *supra* note 280, at 69.

²⁸⁸ U.S. Patent No. 526,669 (issued Sept. 25, 1894).

²⁸⁹ MACDONALD, *supra* note 203, at 130-33 (relying on Fry’s papers rather than on patent office records to describe apparent interference proceeding in which Fry claimed “the legal right of invention” and which concluded when the patent office “granted no patent”).

²⁹⁰ *Id.* at 51; *see also* Khan, *supra* note 48, at 191 (citing *MacDonald v. Blackmer*, 16 F. Cas. 37, 38 (C.C.D. Mass. 1878) (finding that woman inventor-patentee was first inventor when considering a patent to a similar invention that was patented earlier, although not before the claimed date of invention)); MACDONALD, *supra* note 203, at 21-22 (describing how Rebecca Sherwood won an interference in 1864, despite her husband’s employer’s attempted appropriation by patent, by augmenting her own testimony of the details of her inventive process with that of witnesses who saw her “dirty stove” after she had been experimenting); U.S. Patent No. 45,440 (issued Dec. 13, 1864).

white woman, was working in a factory in Massachusetts when she invented an innovative paper bag manufacturing machine. She was sufficiently knowledgeable about the patent system that she had already begun the process of preparing an application when her idea was stolen. Knight had taken her drawings to a machine shop to have a model made, and a man who had inspected the model while it was in the shop filed an application on her invention, claiming it as his own.²⁹¹

Knight fought this attempted appropriation in an interference in 1871. She was able to use her drawings as evidence of her inventiveness and called upon another woman who lodged at her boarding house to testify to her steps creating the invention.²⁹² While the appropriator may have gambled that Knight would either not challenge his appropriation or, like Tracy, fail to convince male officials that she was the true inventor, in this case Knight “introduced voluminous testimony, and . . . stated fully the history of her invention from its first inception down to the present time.”²⁹³ The patent commissioner concluded that Knight’s testimony was “abundantly corroborated by other witnesses.”²⁹⁴ The appropriator filed no testimony at all.²⁹⁵ In these circumstances, the Commissioner of Patents found that despite the “severe test” required to overcome the granted patent and the Commissioner’s admitted “great surprise” that “Miss Knight” was able to overcome “many difficulties” to perfect the invention, Knight had shown herself to be the first and true inventor.²⁹⁶ The Commissioner’s surprise in being forced to recognize Knight as true inventor is further evidence of the gendered landscape on which patent appropriation battles were fought.

While Ellen Eglin may not have had knowledge of any specific appropriation battle, she well understood the raced and gendered landscape through which she moved daily. The experiences of Black men and white women seeking patents underscore how fighting appropriation as a Black woman inventor would require fighting racism and sexism simultaneously. Like many other

²⁹¹ Knight v. Annan, 1871 Dec. Comm’r Pat. 34, 35-36 (1871).

²⁹² *Id.* at 35 (referencing “rude sketch” admitted into evidence); MACDONALD, *supra* note 203, at 54 (describing fellow lodger providing corroborating testimony); *see also id.* at 52-55 (discussing Knight’s experience based on archival records of interference as well as published opinion and identifying appropriator as machine shop employee).

²⁹³ 1871 Dec. Comm’r Pat. At 35.

²⁹⁴ *Id.*

²⁹⁵ *Id.* at 34.

²⁹⁶ *Id.* at 36, 38. Note that the Commissioner emphasized Knight’s gender identity by repeatedly referring to her as “Miss Knight” and to her male challenger by his last name only.

marginalized inventors, Eglin chose to avoid that lopsided (albeit sometimes winnable) battle by using a white male false inventor to pass through the patent system. Her choice was simultaneously rational and a painful loss, both for Eglin and for those of us who have come after her, looking at the patent records and seeing only absence.

V. TRUTH AND CONSEQUENCES

A. *New Truths*

Placing Black women inventors at the center of our inquiry has allowed us to reinterpret absences from the patent archive as silences. Silences can be filled, and voices not heard in the patent archive speak to us from other places. Listening to those voices—often incomplete and indirect whispers—shifts our understanding of the patent law, the patent system, and its participants.

We can see a patent system that was experienced differently depending on the race and gender of its participants. The law of true inventors proved malleable in the hands of white men engaging in assignment by patent, creating space for a novel form of race and gender passing via false inventors. Even in seemingly rigid aspects of inventorship doctrine, such as the procedures designed to preclude false inventor-patentees, race and gender continued to influence how inventors could use the law to fight appropriation by patent. In the path from invention to commercialization, some marginalized inventors made strategic choices that resulted in their replacement in the patent archive, while others decided to forego the patent system altogether.

In turning absences into silences, we learn new truths. In place of a narrative of non-participation, we can see a history that combines bias, inequality, and painful self-denial with agency, accomplishment, and pride. Black women, as well as Black men and white women, innovated and brought their innovations to the marketplace. To do so, they combined recognized strategies of the less powerful with law created on the ground by white men adapting the patent system to fit their business purposes. Without leaving traces in the patent archive, they participated in the patent system. This is a powerful truth that deserves to be understood.

It is also a truth that illuminates beyond the Black/white binary that has been the subject of this historical analysis. These strategies were also available to other inventors marginalized on the basis of other identities, who faced their own calculus of risk and rewards in the face of stigma and bias. Instead of

considering groups whose members appear to have seldom patented, such as Latinx people born in the United States, to be non-participants in U.S. invention, we can instead understand them to be inventive people whose voices do not speak through the patent records.²⁹⁷ There are more silences to be filled with whispers in an on-going project of listening.

B. False Truths

As the United States considers how to close patent gaps, it is important to understand that the patent archive has been speaking false truths.²⁹⁸ We have allowed the invisibility of Black women and men and white women in the patent archive to tell us a false truth of non-existence. Trusting in the true inventor doctrine to ensure that all patentees are inventors, we have interpreted absence as at least non-participation in the patent system and, too often, as non-participation in invention.²⁹⁹ Once this history is acknowledged, we recognize that we have been led astray by the seemingly “deep-rooted, historical veracity” of the patent record.³⁰⁰ Contrary to our assumptions, decade after decade, false inventors were named as patentees, cumulatively distorting the patent record in ways both raced and gendered. Because of savvy yet unrecorded uses of patents, marginalized inventors have been systematically underrepresented in the patent record, while white male inventors have been overrepresented.

These false truths have had consequences, both historic and contemporary, in large part because of the authority of patent records. As I have argued, passing via false inventors could be individually worthwhile (although at a cost) and also cumulatively damaging. Racial and gender gaps in patenting reinforced the long-standing belief that white women and Black women and men did not, and perhaps even could not, invent, a belief that has

²⁹⁷ IANCU & PETER, *supra* note 8, at 1, 12 (noting that based on the “limited information” available, “minorities are underrepresented as inventors named on U.S. granted patents,” with Hispanics born in the U.S. “significantly underrepresented”).

²⁹⁸ *See id.* at 1 (indicating report was in response to congressional mandate to “encourage and increase the participation” by underrepresented groups in patenting).

²⁹⁹ *See, e.g.,* KHAN, *supra* note 245, at 176, 180 (interpreting increase in number of patents granted to women as “increased [] commitment to inventive activity” rather than as a shift in strategies of engagement with patent system); Merritt, *supra* note 200, at 246 (concluding that female inventor-patentees can be counted because “it is relatively certain” that named inventors “actually made the inventions” because “American patent law explicitly requires the inventor’s name to appear on a patent application”).

³⁰⁰ Rantanen & Jack, *supra* note 7, at 318.

persisted into the twenty-first century.³⁰¹ That perception made it harder for individual inventors who chose to patent without hiding their identity to fight appropriation by patent and maintain their place in the patent archive. Each time a marginalized true inventor lost such a fight, another, like Eglin, might have chosen passing as their best option, while others might have chosen not to fight appropriation, and still others might have turned away from invention altogether.

False inventors created more false inventors, and they also helped turn silences into genuine absence by discouraging those who saw no examples of those like themselves in the patent record. Recent studies have shown that the presence of inventors in a community is correlated with children considering invention as a desirable activity.³⁰² The false truths of the patent record and the accompanying absence narrative have diminished the pipeline, depressing inventive activity and thus patenting in marginalized communities. The historic practice of passing thus continues to contribute to today's patent rate disparities, even as other contributing factors, such as *de jure* discrimination and lack of participation in STEM education and jobs, have been reduced.³⁰³

C. Consequences

The discouragement of wide swaths of the American population from invention and patenting represents a loss to individuals, their communities, and the nation. Loss of a patent means a loss of opportunity to monetize an invention. In the stories I have recounted, marginalized inventors considered patents as one possible tool for extracting value from creativity. It was the quest for profit that led some marginalized inventors to choose passing and that motivated appropriation by patent. Eglin, accepting \$18, and Woods, fighting a life-long battle against appropriation and poverty, knew this well.

³⁰¹ See, e.g., Zachary M. Seward, *Summers Releases Transcript of Remarks on Women in Science*, THE HARVARD CRIMSON (Feb. 17, 2005), <https://perma.cc/Y2XW-25VM> (President of Harvard University attributes science and engineering gender gap to "aptitude" more than "discrimination").

³⁰² Bell et al., *supra* note 10, at 651.

³⁰³ See USPTO OFFICE OF CHIEF ECONOMIST, *supra* note 8, at 3 ("Notable differences in the number of male and female patent inventors persist despite greater female participation in science and engineering occupations and entrepreneurship."); see generally Civil Rights Act of 1964, 4, Pub. L. No. 88-352, 78 Stat. 241 (1964) (codified as amended in scattered sections of 2 U.S.C., 28 U.S.C., and 42 U.S.C.) (banning discrimination on the basis of race and sex in employment and education).

While most patents are not commercially valuable, each patent not obtained by a marginalized inventor represents a potential loss of a means of accumulating wealth, another factor driving wealth inequality between women and men and Black Americans and white Americans.³⁰⁴ Such lost opportunity affects the larger community. As K.J. Greene has noted with respect to the disproportionate inability of Black Americans to monetize their musical creativity through copyright, such losses reduce the amount of wealth circulating in the community, wealth thereby unavailable to promote future wealth accumulation by, for example, paying college tuition for family members or financing other businesses.³⁰⁵ Such disparities, perpetuated over generations, have cascading effects, well-documented with respect to the historic harms arising from the intersection between the law of real property and anti-Black racism.³⁰⁶ The gendered and raced history of false inventors adds patent law to a growing list of contributing factors to race and gender gaps in household wealth, causing individual and community harm.³⁰⁷

Patents, though, are more than tools for commercializing inventions. Inventing is a form of self-expression that brings fulfillment and pride, as well

³⁰⁴ John R. Allison, Mark A. Lemley, Kimberly A. Moore & R. Derek Trunkey, *Valuable Patents*, 92 GEO. L.J. 435, 437 (2004) (noting that only a small fraction of patents are commercially valuable); Cedric Herring and Loren Henderson, *Wealth Inequality in Black and White: Cultural and Structural Sources of the Racial Wealth Gap*, 8 RACE & SOC. PROBS. 4, 4-5 (2016) (surveying literature showing “extreme and persistent racial differences in wealth” in US, as well as between female- and male-headed households); Lisa D. Cook & Chaleampong Kongcharoen, *The Idea Gap in Pink and Black* 3-4 (Nat’l Bureau of Econ. Rsch., Working Paper No. 16331, 2010) (noting variation in commercialization by race and gender); see also Regina Austin, *Nest Eggs and Stormy Weather: Law, Culture, and Black Women’s Lack of Wealth*, 65 U. CINN. L. REV. 767 (1997) (analyzing factors contributing to lack of wealth accumulation by Black women in the United States).

³⁰⁵ K.J. Greene, *Copynorms, Black Cultural Production, and the Debate over African-American Reparations*, 25 CARDOZO ARTS & ENT. L.J. 1183, 1191-93 (2008).

³⁰⁶ RICHARD ROTHSTEIN, *THE COLOR OF LAW: A FORGOTTEN HISTORY OF HOW OUR GOVERNMENT SEGREGATED AMERICA* 182, 184-85 (2017); see also Greene, *supra* note 305, at 1191-93 (noting parallels between appropriation of creativity from Black creators and unequal access to other resources and the enriching of white-owned business by such appropriation); Sara Lichtenwalter, *Gender Poverty Disparity in US Cities: Evidence Exonerating Female-Headed Families*, 32 J. SOCIO. & SOC. WELFARE 75, 87 (2005) (describing causal link between occupational segregation by sex and female poverty).

³⁰⁷ Herring & Henderson, *supra* note 304, at 4 (noting the wide range of explanations and possible contributing factors to the racial wealth gap); see also Chien, *The Inequalities of Innovation*, *supra* note 11, at 24-25 (arguing that patent system preferentially rewards those who already have “invention capital” in the form of resources, intensifying inequality); Olivia Constance Bethea, *The Unmaking of “Black Bill Gates”: How the U.S. Patent System Failed African-American Inventors*, 170 U. PENN. L. REV. ONLINE 17, 22, 33, 37 (2021) (linking racial wealth gap to “generations of exclusion from the United States’ patent system” and arguing for “a reparations package” including both payments tied to the “value of patents that were denied” and a program to achieve parity in participation in “innovative spheres”).

as public recognition.³⁰⁸ Patents play a sociological role as “high-quality credential[s]” that “serve as powerful evidence that an individual is an inventor.”³⁰⁹ They confer social capital on inventor-patentees—even those who do not own the resulting patent rights—in multiple arenas in which the true inventor status is valued, like academia, corporations, government, social networks, and business networks.³¹⁰ Inventor-patentees can use their status to achieve tenure, promotion, enhanced salary, prestige, and investor support. In addition to these individual benefits from patent credentialing, patents granted to individuals from a particular marginalized group can benefit the group as a whole, serving as sociopolitical tools to support civil right claims.³¹¹ The loss of patents diminishes the ability of marginalized individuals to accumulate social capital and the ability of marginalized groups to mobilize patents as a collective resource.

Finally, as recognized by the USPTO, the discouragement of marginalized persons from invention is a national loss, harming “America’s long-standing economic prosperity and global leadership in innovation” by failing to include all who can contribute to technological creation.³¹² That loss is symbolic as well as actual, as the United States uses its patent record to bolster national pride.³¹³

VI. CONCLUSION

No analysis centering Black women inventors would be complete without consideration of Madam C.J. Walker, today perhaps the most famous Black American woman inventor.³¹⁴ Like Ellen Eglin, Walker worked as a washerwoman when she migrated from Mississippi to St. Louis in 1889.³¹⁵ Eager to better her condition and provide for her daughter, Walker eventually went

³⁰⁸ See Fromer, *supra* note 28, at 1771-73, 1779; Jessica Silbey, *Patent Variation: Discerning Diversity Among Patent Functions*, 45 LOY. U. CHI. L.J. 441, 471-72 (2013) (identifying and analyzing “personal and moral dimensions” of patents).

³⁰⁹ Rantanen & Jack, *supra* note 7, at 318; see also Dan L. Burk, *On the Sociology of Patenting*, 101 U. MINN. L. REV. 421, 425, 442 (2016) (describing social signaling role of patents); Fromer, *supra* note 28, at 1775 (summarizing scholarship on inventors’ concern with reputation).

³¹⁰ Rantanen & Jack, *supra* note 7, at 365-69; Schuster et al., *supra* note 3, at 312-13.

³¹¹ Swanson, *Race and Selective Legal Memory*, *supra* note 13, at 1108-13; Swanson, *Inventing the Woman Voter*, *supra* note 9, at 560, 562.

³¹² IANCU & PETER, *supra* note 8, at 1.

³¹³ Sapna Kumar, *Innovation Nationalism*, 51 CONN. L. REV. 205, 229 (2019) (noting patents as source of national pride).

³¹⁴ For Walker’s fame, see *Self Made* (Netflix limited series published Mar. 20, 2020); and BUNDLES, *supra* note 2, at 294-95 (recounting books, artistic installations, museum exhibitions, and lists of famous Americans that include Madam Walker).

³¹⁵ BUNDLES, *supra* note 2, at 43, 45-46.

into business making and selling hair care products. Although she told a dramatic story of inventing a new hair growth ointment, Walker never completed the patent application process for her initial product.³¹⁶ In 1913, she filed a patent application for a “Hair Drying and Straightening Comb” but then may have abandoned it.³¹⁷ Her name, like Eglin’s, is missing from the archive of patentees.³¹⁸

Instead of patents, Walker relied on innovative business methods, strategic self-promotion, and hard work to build a business that made her the wealthiest Black woman in the United States.³¹⁹ She left an extensive archival record outside the patent system, a record that speaks in a powerful voice to what it meant for her to invent as a Black woman.³²⁰ Yet, although Walker far surpassed the business success of her contemporaries Granville Woods and Garrett Morgan, she was not heralded as a Black inventor in her lifetime. Without the evidence of patent records to speak to her inventiveness, her profits were not sufficient to earn her the moniker “Black Edison.” Rather than striving to incorporate the status of “inventor” into her identity as a Black woman, Walker, like Eglin, chose to fight other battles. She claimed her identity as a Black

³¹⁶ *Id.* at 60.

³¹⁷ Letter from E.B. Moore, Commissioner of Patents, to Sarah Walker (Feb. 5, 1913) (on file with the Indiana Historical Society, Madam C.J. Walker Collection), <https://perma.cc/BRH7-X3AT> (acknowledging receipt of Walker’s incomplete patent application); *see also* SLUBY, *supra* note 150, at 133. *But see* BUNDLES, *supra* note 2, at 20 (asserting Walker did not invent the “hot comb”).

³¹⁸ Note that Madam C.J. Walker’s name appears in the patent archive in the form of a corporate assignee. Her business, The Madam C.J. Walker Manufacturing Company, acquired patents, including two from another Black woman inventor-patentee. A decade after Walker’s death in 1919, Marjorie Joyner, a Walker company employee, invented both a scalp protector and a permanent waving machine. Like Latimer, Joyner had agreed to employment conditioned on assigning any inventions to her employer. While Joyner was named as the inventor of a Permanent Waving Machine, U.S. Patent No. 1,693,515 (filed May 16, 1928) (issued Nov. 27, 1928) and Scalp Protector, U.S. Patent No. 1,716,173 (filed May 16, 1928) (issued June 4, 1929), she “never got a penny.” MACDONALD, *supra* note 203, at 301; *see also* Transfer of Patent by Marjorie S. Joiner, 1928 (Dec. 7, 1928) (on file with the Indiana Historical Society, Madam C.J. Walker Collection), <https://perma.cc/53WR-67PD> (assigning scalp protector patent to the Madam C.J. Walker Manufacturing Company). It was not until sixty years later that Joyner was celebrated publicly as a Black woman inventor. *See* MACDONALD, *supra* note 203, at 297-301 (recounting Joyner’s story and late-in-life recognition).

³¹⁹ BUNDLES, *supra* note 2, at 275.

³²⁰ *Id.* at 22, 294. For more information, visit the Indiana Historical Society, Madam C.J. Walker Collection.

woman while taking public roles as a businesswoman, activist, and philanthropist.³²¹

Comparing Walker's story to Eglin's underscores that there has never been one way to invent as a Black woman. We can only understand American inventiveness fully and combat race and gender patent gaps by tracing the various passages of Black women in and through the patent archive. Centering the disparate strategies of Black women inventors, from the unknown to the famous, teaches us truths about how the patent system, like other areas of law, shapes identity, memory, power, and wealth in raced, gendered, and consequential ways.

³²¹ See generally BUNDLES, *supra* note 2; TYRONE MCKINLEY FREEMAN, MADAM C.J. WALKER'S GOSPEL OF GIVING AND BLACK WOMEN'S PHILANTHROPY DURING JIM CROW (2020); TIFFANY GILL, BEAUTY SHOP POLITICS: AFRICAN AMERICAN WOMEN'S ACTIVISM IN THE BEAUTY INDUSTRY 22-31 (2010).