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Inventive Women

During May 2015, the National Inventor's Hall of Fame will hold its induction ceremony. In this year's ceremony, Kristina Johnson will be inducted for her pioneering work in optoelectronics processing systems which form the basis for 3D films. In this enewsletter, we profile two inventive women (both inductees) who are featured in our book Her Story: A Timeline of the Women Who Changed America.

Edith Clarke

A pioneer in the field of electrical engineering, in 1947, Edith Clarke (2015 inductee) was one of the first three women fellows of what today is called the Institute of Electrical and Electronics Engineers (IEEE). She published what became the standard textbook for circuit analysis calculations for electric transmission. She had many other firsts to her credit, including the first woman to receive an M.S. in electrical engineering from

the Massachusetts Institute of Technology, the first professionally employed female engineer, the first woman to deliver a technical paper before the IEEE, the first female full voting member of IEEE, and the first female professor of electrical engineering in the U.S. (University of Texas at Austin).

Clarke received a patent for a graphical calculator she invented that assisted with the calculations necessary for the electrical transmission system (the wires strung on tall towers). This work was performed while she was employed by General Electric. Clarke also developed mathematical methods that greatly simplified the efforts required for electrical engineering. An expert in the analysis of power systems (she received a patent for her method of regulating the voltage on power transmission lines); she also assisted with the development of dams to produce electricity in the American west.

Katherine Blodgett

Katherine Blodgett was inducted in 2007 for her patent on Langmuir-Blodgett films, organic films that are only one molecule thick. This patent opened up a new scientific discipline and new laboratory techniques still in use today. These films have many current uses ranging from solar energy conversion to integrated circuit manufacturing. Like Clarke, Blodgett was an employee at General Electric and the first female scientist that they hired. She was also the first female to earn a PhD in physics from Cambridge University.

Another of Blodgett's patents was issued in 1938, for nonreflective glass that eliminated distortions from reflective light. This glass, which was the world's first invisible or 100% transparent glass, is used in many devices including telescopes, microscopes, automobile windows, television screens, eyeglasses, camera lenses, showcases, picture frames, submarine periscopes, and projector lenses. One of the first uses of Blodgett's glass was in the movie cameras used to film the 1939 movie Gone With the Wind. During World War II, Blodgett focused her attention in other areas and her work lead to breakthroughs related to plane wing deicing. She also designed a smoke screen that was used - and saved lives - in military campaigns during the war.

Women's stories continue to inspire us! We salute these pioneering, inventive women and are pleased to share how we all benefit from their amazing contributions.

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Her Story: A Timeline of the Women Who Changed America

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