HELEN BROOKE TAUSSIG, 1898-
The "Blue Baby" Doctor

JEANNE HACKLEY STEVENSON

Helen Brooke Taussig was born on May 24, 1898, in Cambridge, Massachusetts, the daughter of Dr. Frank M. Taussig and his wife, Edith Thomas Guild Taussig. She has described herself as from a "direct line of teachers, an indirect line of doctors." Her father was a famous economist on the Harvard faculty for fifty-three years and first chairman of the United States Tariff Commission. Her mother was interested in zoology and one of the first graduates of Radcliffe College. Her paternal grandfather, a "horse and buggy" doctor, was particularly interested in children with defective eyesight. The William Taussig School for Handicapped Children in Saint Louis, Missouri, was named for him.

Helen Brooke Taussig attended the Cambridge, Massachusetts School for Girls and then studied at Radcliffe for two years. She then transferred to the University of California where she received her A.B. degree in 1921 and made Phi Beta Kappa. After graduation she intended to attend the Harvard School of Public Health, partially because her father thought that "public health was more of a field for women than medicine." She was informed by the Dean that she could enter the School of Public Health for the two-year finishing course, but she would have to take two years of medicine before entering. Moreover, there was a "catch"—at the end, she still would not receive a degree! She later recalled asking the Dean, "Who wants to study for four years and get no degree for all that work?" She got the point when the Dean replied, smiling, "Nobody, I hope."

So Helen Taussig went home and told her father that she had decided to become a physician. "It was one of those times in life," she later observed, "when what seemed to be a disappointment at the time later proved to be a great opportunity." She entered the Medical School of Boston University, but after two years transferred to the Johns Hopkins Medical School where she graduated in 1927. Then came another one of those disappointments that proved to be the avenue to later achievement. After graduation she was denied an internship in medicine at the Hopkins because one woman from her graduating class had already been accepted to that post, and the School would not put two women in the same field. As a student at Boston University, she had been advised by Dr. Alexander Begg, Dean of the Medical School there, to specialize in one of the large important organs of the human body. He suggested the heart, and she had then begun work on the anatomy of the heart muscle. Now, denied the internship in internal medicine, she accepted an internship in pediatrics and then became an Archibald Fellow in the heart station at the Hopkins following her graduation. In 1930, she was

made head of the Cardiac Clinic in the Harriet Lane Home of the Hopkins. She remained at the Hopkins for thirty-three years until her "retirement" as physician-in-charge of the Cardiac Clinic in Harriet Lane in 1963.

Dr. Helen Brooke Taussig is best known as the Johns Hopkins pediatrician who first envisioned, and then helped to develop, the famous "Blue Baby" operation, first performed in 1944. As a teacher and as a physician, Dr. Taussig had become interested in the plight of cyanotic children whose oxygen-starved blood left them insidiously debilitated. Many could not walk by early childhood (if they lived that long); they lost consciousness at frequent intervals; were total invalids, and often died by the age of twenty. The idea of surgery to correct the condition came to Dr. Taussig one day in 1939, as she read an article in a medical journal relating to an operation performed on an infant's malformed heart by Dr. Robert Gross of Boston. Dr. Gross had closed a blood vessel, which before birth serves to keep blood out of the lungs and which in most children closes by itself shortly after birth. When it fails to close normally after birth, oxygen-rich blood from the aorta flows too freely, placing a strain on the heart. In cyanotic children, however, the narrowing or closure of the pulmonary artery prevents adequate circulation to the lungs. Dr. Taussig recalls thinking, as she read of Dr. Gross's operation, "... what about turning that idea upside down—keeping the vessel open as a way to increase the blood flow and help the cyanotic patient?"

Then, in the fall of 1942, Dr. Alfred Blalock came to the Johns Hopkins Hospital. During the 1930's he had initiated a school of experimental surgery at Vanderbilt University, and when he joined the Hopkins, Dr. Blalock was one of a handful of surgeons in the country who had performed the "Gross patent ductus" procedure. That gave him a status at the time similar to the professional status today of such noted heart surgeons as Christian Barnard, Denton Cooley, and Michael DeBakey.

In late November, 1942, Dr. Blalock performed his first patent ductus operation at the Hopkins, and Dr. Helen B. Taussig was among the packed audience to observe the procedure. "It seemed to me," she later recalled, "that if he could close an artery of the heart, he could open one." She was awed by his achievement that day, but she remembered nevertheless telling him after the surgery: "Your work today was great, but if you could build me a ductus, instead of closing one off, build me one for my babies, then that would really be a great day." Some might have regarded her remarks as impudent, but Dr. Taussig recalled that Dr. Blalock "looked me straight in the eye and just sighed and replied, 'When that day comes... what I did today will seem like child's play.'" Both Dr. Alfred Blalock and Dr. Helen Brooke Taussig were to make that prediction a reality.

The first "Blue Baby" operation was performed at the Johns Hopkins Hospital by Dr. Blalock in November, 1944. In short, the operation permits the defective blood vessel to be by-passed so that an auxiliary supply of blood can be sent to the lungs by a new route. The Blalock-Taussig operation for pulmonary stenosis and pulmonary atresia—the so-called "Blue Baby"

operation—made the Hopkins a "refuge of hope" for distraught parents after it was first performed in 1944.

In the years following the successful performance of the Blalock-Taussig operation, Helen Brooke Taussig (like Dr. Blalock) was showered with awards. In 1948, Dr. Taussig and Dr. Blalock shared the Passano Foundation Award for an outstanding contribution to medical science. It was the first time that the Award had been split and the first time it had been given to a woman. In 1949, Helen Taussig was one of twelve women physicians cited for contributing "to the glory of their profession" by Hobart College in Geneva, New York. In 1963, upon the occasion of her retirement at the Harriet Lane, she was the first recipient of a new Fellowship to be awarded by the National Foundation of the March of Dimes for scientists at retirement age. The Thomas M. Rivers Memorial Distinguished Research Fellowship provided $40,000 to the Johns Hopkins School of Medicine to underwrite Dr. Taussig's research in birth defects for a period of five years. At the time, Dr. Taussig and her co-workers were studying how thalidomide caused birth defects in Germany. In the summer of 1961, she had been the first to alert the American medical community to the dangers of thalidomide, and she later waged a campaign for more effective safeguards against inadequately tested drugs. Her research then turned to the problem of how a drug can injure an unborn child. When she received the Thomas M. Rivers Fellowship in 1963, she observed:

> What I am doing now is, I think, the most important thing I've done since 1944. .. . And I often remember the people who used to say it wasn't worth educating women because they would get married and give up medicine. My answer used to be that it was cheaper to educate a few women than to build a battleship—and a lot more profitable to the country.

As the Baltimore Sura commented two decades after the anniversary of the first "Blue Baby" operation:

> She grew up in an age when some people said it didn't pay to educate women, they just got married and had babies. It paid to educate Helen Brooke Taussig, physician. She never married, and she never had children. But her work helped to save the lives of hundreds of babies, and saved thousands of others from revolting deformity.

Shy in speaking of herself, however, Dr. Taussig has commented:

> It's the clinical errors that keep you humble.. . . You have your sadnesses as well as your successes. One reads all about the successful operation, but not about the unsuccessful ones, the sorrow and background of hard work. On the whole, though, I think I've done more good than harm.

And that may well be the understatement of the century!

Although she retired as physician-in-charge of the Cardiac Clinic of the Harriet Lane Home, Helen Brooke Taussig has never retired from working and fighting—and she probably never will. She was a crusader for Medicare—in opposition to the American Medical Association—and she continues to speak out against those who would put restraints upon medical research, especially in the area of her main interest, fetal research.

And the honors have continued to come to her. In 1964, she was elected president of the American Heart Association, the first woman to head that

Association in the forty years of its existence. In the same year, she was the recipient of the Medal of Freedom, the highest civilian honor that the President of the United States can bestow in peacetime. Two years later, Radcliffe College presented her the Founder's Award, an honor accorded to women who have made "outstanding contributions" to public life or the arts. In 1972, "The Maryland Woman" was named the first woman Master in the American College of Physicians. In August, 1973, she was among the first twenty women in the United States inducted into the Women's Hall of Fame in Seneca Falls, New York, on the fifty-third anniversary of the achievement of woman's suffrage. Among her "sisters" inducted at that time were Eleanor Roosevelt, Helen Keller, Pearl Buck and Amelia Earhart, as well as two other "Maryland women," Rachel Carson and Florence Rena Sabin.

It has been observed that Helen Brooke Taussig was involved in "women's liberation" long before the term was coined. She got into and through medical school, won "male-dominated appointments," and battled "medical and male chauvinism" throughout her lifetime. And significantly, Helen B. Taussig is "revered by students and colleagues not only as a fine teacher and doctor, full of compassion for her small patients, but as a woman as well." When not working she enjoys the "quiet pleasures" of life—the music of Brahms and Bach, the poetry of Keats and Shelley, and biographies "that are portrayals of character." Fond of nature "in every sense of the word," she enjoys walking, canoeing, and swimming, and loves birds, growing things, and "everything to be seen in open spaces." For women considering medicine, Dr. Taussig has observed that she "wouldn't advise them to go into it unless they are genuinely interested"—not bad advice for anyone considering other professional areas either. Still, to those who say it isn't worth educating women, Helen Brooke Taussig's rejoinder bears repeating: "It is a lot cheaper to educate a few women than to build a battleship—and a lot more profitable to the country."

Brief Bibliography

The Maryland Historical Society has extensive clippings covering the career of Dr. Taussig; see also an article in the Baltimore *News-American*, August 19, 1973; *World Who's Who in Science* (1968), and *American Men and Women of Science* (12th ed.) Vol. VI.

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