

# MEDLEGACY

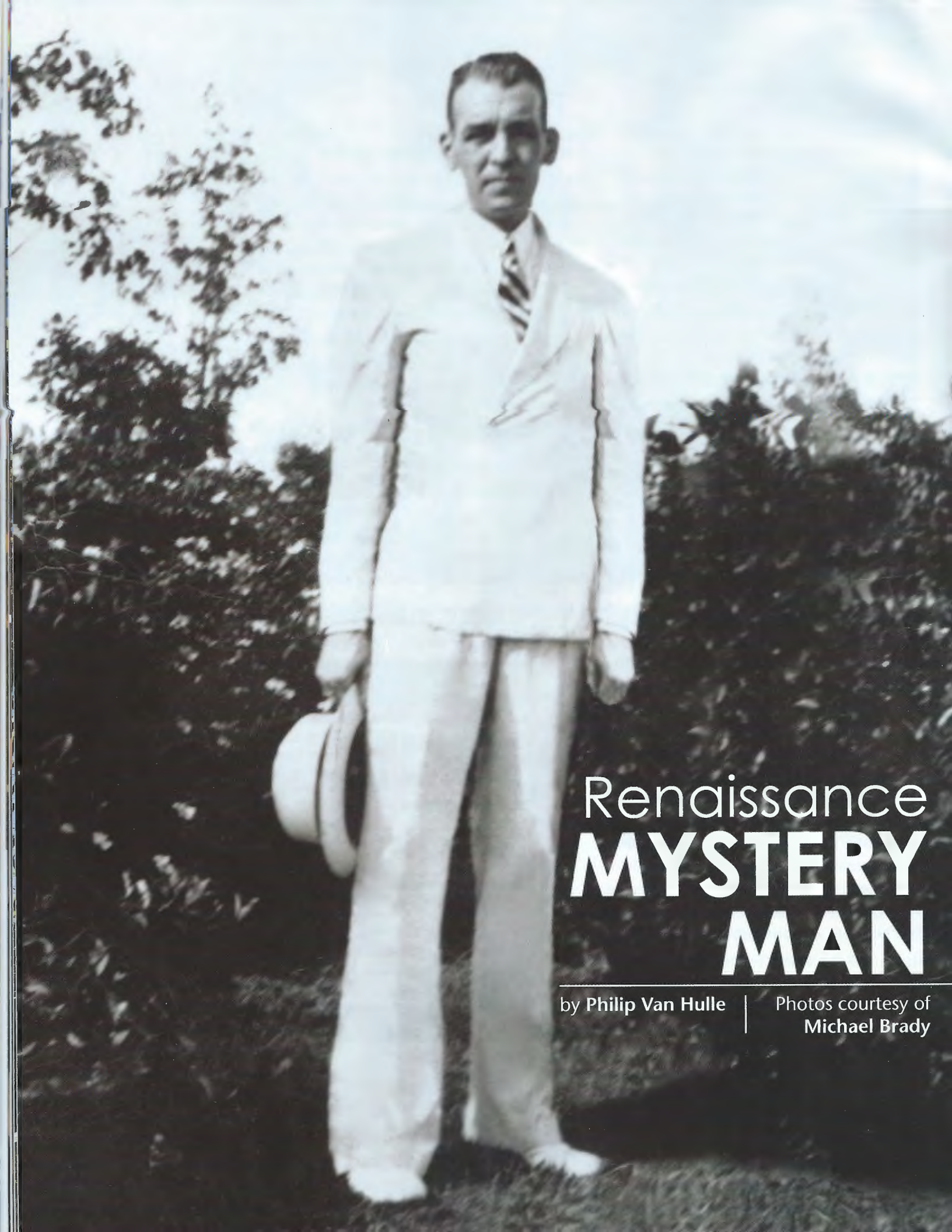
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WAYNE STATE UNIVERSITY  
SCHOOL OF MEDICINE





Renaissance  
**MYSTERY  
MAN**

by Philip Van Hulle

Photos courtesy of  
Michael Brady

## Wayne State grad piecing together the life of his medical inventor father

Detective stories often use the analogy of the loose thread: Pull the thread and the story unravels to reveal the who, what, when and why of the caper. Michael Brady, in his retirement, is playing the role of sleuth, but he is attempting to weave together a skein of threads to discover the whole story that is his father's life.

Brady's father, David R. Brady, died when Michael was 21. The younger Brady, who established the David R. Brady Annual Scholarship for medical students at the Wayne State University School of Medicine, is pulling together the life history of his father, an inventor who secured numerous patents and who saved thousands of lives with one of his ideas.

"This man was ahead of his time. He had a vision way beyond the 1940s and 1950s," Michael Brady said. "His ideas really worked. He felt a need to help his fellow humans."

These are facts of the case so far:

David Brady, born in Richmond, Ind., in 1905, received an engineering degree from the University of Indiana. In the early 1920s, he and his brother Carl, a metallurgist, moved to Detroit to seek greater opportunity. They formed the Brady Research Co., working day jobs and conducting research in the evenings.

He secured his first patent in 1935 while working part time in a shoe store to supplement his income. He designed a shoe to increase walking comfort. His work with shoe design led to a revolutionary development for baseball cleats in 1939 that drew attention from the big leagues.

The fixed steel cleats used by big leaguers of the era led to myriad leg and ankle injuries, especially during sliding into

bases. David Brady designed a baseball shoe that enclosed round steel spikes in rubber. The spikes remained inside the rubber sheath until the player placed his weight on his feet, forcing the spikes into the ground. Once the weight was lifted, as in a slide into second base, the spikes retracted into their rubber coverings. The design protected both the runner, whose standard cleats of the time could stick in the dirt of the base path during a slide, resulting in a twisted ankle or worse, and the baseman, who no longer needed to worry about cleats digging into his shins or ankles.

Michael Brady has a number of newspaper clips from the time demonstrating the new shoe style and the teams and players who tried them out. In those articles, Detroit Tigers manager Mickey Cochran expresses enthusiasm about the Brady design, and Joe Gordon, the New York Yankees second baseman, provided additional headlines when he wore a pair in the 1939 World Series.

In all, three teams – the Tigers, the Philadelphia Athletics and the Yankees – used the Brady shoe in 1939. The Yankees tried the shoe specifically for Joe DiMaggio after the Yankee Clipper injured his leg in the outfield.

Michael Brady isn't sure what became of the Brady baseball shoe after the initial interest. He has contacted the Baseball Hall of Fame in Cooperstown, N.Y., to see if there is more information available there.

"I know there was a lawsuit and that he represented himself, but he said he was dead out of the box and that stopped it," Michael Brady said. "He couldn't go forward. Those shoes look exactly like what the pros wear today."



The elder Brady continued working on sports devices. He worked with Detroit Lions tackle John "Jack" Johnson in 1939 to design a more effective knee brace, ultimately called the "Johnson Knee Brace." The brace was used by Hank Lundgren, the captain of the 1940 University of Detroit basketball team. Michael Brady has a tattered letter dated 1943 from Hugo Goldsmith, president of Sports Products Inc. and MacGregor Sporting Goods, expressing "deep interest" in the new brace. Goldsmith himself held a number of patents, from football pants to catcher's masks.

Next came a new football helmet designed to supplant the version recently introduced by Riddell. Football players were suffering serious head injuries, and in some cases, deaths due to the lack of head protection, even with leather helmets. Riddell, in 1939, produced a plastic helmet containing a belt inside to accommodate head sizes. Brady introduced his improved helmet, with sponge rubber protection to cushion the head, in 1940. Alas, Riddell had something Brady didn't – the support of Chicago Bears coach and owner George Halas. Riddell was a Chicago-based company at that time and the pioneer of the National Football League preferred to back a home team in helmet design.

David Brady with his son, Michael, age 3, in 1948 at their home in Detroit. Michael, now 67, is piecing together the life of his father, who worked for the Medical Research Department of Wayne College (the forerunner of Wayne State University) during World War II.



"Dad was always a tinkerer. The smells that came out of our basement were unlike anything anybody else had or knew of," Michael Brady said. "This chemical and that chemical. It put food on the table. Sometimes he'd have something big. He loved the 'aha moment,' but they never did well in the commercial end. He never received the financial reward of the things he developed. That was always the piece of the puzzle that wasn't there – someone to invest to make the volume and take it wide."

With the attack on Pearl Harbor and the subsequent declaration of war with Japan, Germany and Italy, the country needed men for the frontlines, but it also needed men with brains and ingenuity. David Brady joined the Medical Research Department of Wayne College (the forerunner of Wayne State University) in Detroit in 1941. He remained with the department through the war, working on a number of inventions to improve the lives of combat soldiers.

While working at Wayne College, David Brady developed a number of ideas, many of them patented, to support the U.S. military during World War II. These included a special shoe with a ripple sole designed to soften the shock for paratroopers landing on the ground after a jump, and a helmet for tank crews designed to reduce head injuries when traversing rough terrain.

Perhaps his greatest invention wasn't to be used in battle, but afterward to deal with the horrors of war. During World War II, servicemen who survived large-scale burns to the body during combat were treated and kept alive, but thousands later succumbed to infection. Many medical experts attribute those infections to the fibers from the bandages and sheets used to wrap the wounds. The loose fibrous materials in the bandages melded to the wound, causing infection, and later, death. Even if infection



didn't occur, changing the bandages became a tortuous ordeal for the wounded when the fibers were pulled from the wound.

In 1944, David Brady filed an application with the U.S Patent Office for a non-sticking surgical bandage devised of non-absorbent, non-toxic materials, in effect, a bandage that wouldn't stick to wounds or leave behind detritus in burns when changed. The patent was finally granted July 26, 1949, and applications indicate that David Brady assigned U.S. Patent Number 2,477,403 to a company that later produced the product. Michael Brady believes this invention was the one of which his father would have been most proud, and saved countless lives.

"That was his life's proudest achievement," said Michael Brady, a graduate of the WSU School of Business Administration.

After the war, David Brady left the university and established Brands Research, a company that he continued until his death from emphysema in 1966. At the time of his death, Michael Brady said, his father was still at work on several projects, including designing methods for real wood dashboards in automobiles and improved insulation for railway cars.

After graduating from WSU in 1970, Michael Brady went on to build a successful career as a stockbroker. Today, he and his wife, Patricia, also a WSU graduate, live in Rochester, Mich. Before he retired, Brady taught at the very school from which he graduated, from 1984 to 2006. He still bumps into former students.

"When I'm downtown, people come up to me and ask, 'Didn't you teach at WSU?' I tell them that I did, and ask them how I did. They always tell me that I gave them the real world in my teaching," he said. "For every class, I started with a Wall Street Journal article that related to what we were talking about. They tell me that it brought the lessons alive for them."



Michael Brady and his wife Patricia, both graduates of Wayne State University, established the David R. Brady Annual Scholarship for medical students at the School of Medicine.

Why create a scholarship named for his father for students at the School of Medicine? "This is where my father flourished," Michael Brady said. "He came up with 52 patents while at Wayne State University. This is where he was his happiest. He could meet with research staff and collaborate. He had more freewheeling ideas here and wasn't compartmentalized. I want to be part of WSU going forward."

He said he would like to sit down with students who benefit from the David R. Brady Annual Scholarship to tell them about the man who was once named one of the top 10 best dressed men in Detroit and his accomplishments. "That's the price you're going to pay for the scholarship," he joked.

David Brady has created a website about his father – [davidralphbrady.com](http://davidralphbrady.com). He welcomes anyone who knew or worked with his father and has more information to contact him via the website.