

SWELL LINES*The Bodysurfing Magazine*

Swimming Propellers: History of the Swim Fin

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by Swell Lines Magazine

Swim fins are the tools of our passion. We wear them for hours at a time. We often have bloody holes in our feet from the incessant rubbing. Wounds that constantly remind us of recent pumping swell. Fins make land travel difficult and often humorous, but when we enter the water, swim fins instantly transform our terrestrial physiology aquatic. They are rubbery adaptations that allow us to power through heavy surf and into heaving-fast peaks. In this article, we will examine the history of the swim fin.

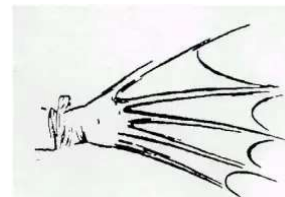


(<https://swelllinesmagdotcom.files.wordpress.com/2014/04/450px-latex-hevea-cameroun.jpg>).

Hevea brasiliensis

The ancient people of Central America were known for their use of the latex extracted from *Castilla elastica* or *Hevea brasiliensis*: rubber trees. Olmec means “rubber people.” The quality of rubber varied greatly until the 1840’s when Charles Goodyear and Thomas Hancock developed the process known as vulcanization: the addition of sulphur and other compounds to natural latex along with curing at high temperature. The cross-linking of individual molecules produces the tensile strength and durability of modern rubber. Vulcanization changed the industrial world.

In the 15th century, Leonardo Da Vinci experimented with various devices to improve the human physical condition: wings, vehicles and *swim fins*.



(<https://swelllinesmagdotcom.files.wordpress.com/2014/04/leonardo-2.jpg>).

Da Vinci's Vision



(<https://swelllinesmagdotcom.files.wordpress.com/2014/04/ben.jpg>).

Young Benjamin Franklin

Colonial Americans were not known for their agility in the water. A Boston newspaper reported, “The most frequent use of the harbor is for transport, and drowning.” But one 11 year old boy loved to swim. The ingenious child strapped thin planks of wood to his feet and hands, thus increasing his speed and efficiency in the water. Young Benjamin Franklin had discovered the swim fin.

Frenchman Louis de Corlieu began developing the modern swim fin in the early 1900’s. His 1933 patent called them “propulseurs de natation et de sauvetage (swimming and rescue propulsion device)”. Known as “swimming propellers,” they soon gained use in naval military applications.

In 1940, American gold medal yacht racer, Owen P. Churchill was inspired by local Tahitians using handmade swim fins. Upon return to the US, he received a license from de Corlieu to produce his own rubber fins and renamed them swim fins. They were black and cost \$4 dollars. Churchill Fins saw action in World War II with the British Frogmen and US Navy. After the war, Churchill’s team developed a process that made the fins buoyant and allowed for the addition of color. Green, floating Churchills then hit the market. According to Owen Churchill, “The feet and legs of a human being were not designed by nature for swimming...and the use of my invention converts the feet into swimming members of correct hydrodynamic structure and design.”

During WWII, the US Navy Underwater Demolition Team (UDT-precursor to the Navy SEALs) sought a more serious swim fin for their serious duties. The Navy contracted rubber sporting-good giant, Voit, to develop a new swim fin. In 1944, the Voit UDT swim fin was introduced. Longer and stiffer than previous fins, UDTs provided the power that the Navy Special Forces desired.



(<https://swelllinesmagdotcom.files.wordpress.com/2014/04/original-churchill-fin.jpeg>).

Churchill Swim Fins

With the post-war recreation market peaking, Voit released the Duckfeet Custom Model swim fin in 1953. Shorter and more flexible than the UDT, Duckfeet became a standard fin for bodysurfing, lifeguarding and recreational diving.

In the early 80's, Voit left the sporting goods industry as jobs went overseas. Their various products were outsourced and the quality of UDT swim fins suffered. They eventually became harder to find. A devoted group of bodysurfers, divers and water people mourned their loss. One such heavy-water bodysurfer, LA's Greg Deets Ph.D, was not ready to give up his dedication to UDTs. He tracked down the original molds behind a Tijuana barn and began reinventing the cherished swim fin.

Fred Simpson began bodysurfing in the early 1950's on the northside of the Huntington Beach Pier. He first wore Churchills and later Voit Duckfeet. In 1962, while lifeguarding in Long Beach, a friend told him about a hard-breaking wave in Newport. Fred checked it out and soon dedicated himself to bodysurfing Wedge. He became a standout: strong, talented and courageous. He consistently put himself, "in the path of the bull until it ripped his clothes but didn't kill him." But after one



(<https://swelllinesmagdotcom.files.wordpress.com/2014/04/mercury7fins-copy.jpg>).



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Louis de Corlieu

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UDT at the Apollo 15 splashdown.

Mercury 7 astronauts. Aquatic training with Churchills and UDTs.

the Pit, Fred decided he needed more power than his Duckfeet could produce.



(<https://swelllinesmagdotcom.files.wordpress.com/2014/04/spaceflightcopy.jpg>)

Greg Deets testing the aerodynamics of his UDTs -Photo: Mel Thoman

Simpson soon had drawings and balsa wood models of his new fin. Local surf and dive shops expressed interest in the prototypes so he went forward with the patent and manufacturing processes. The first Vipers, released in 1982, were 7" long, all black, with no drain holes and hard ribs on the upper and lower edges. A short time later, drain holes were added, the lower ribs were removed for easier walking and the now iconic yellow splash was added to the

blade. Vipers and UDTs are now synonymous with heavy-water bodysurfing.



(<https://swelllinesmagdotcom.files.wordpress.com/2014/04/dafin-web-banner-2.jpg>)

In the mid-90's, Aussie ex-pat Andy Cochran, living in Hawaii, developed a unique swim fin called DaFin. Today, there are at least a dozen quality swim fin options for the beginner to charging hellman bodysurfer. Churchills are still a sentimental favorite among some watermen. UDTs are new and "biomimically" improved. The Duckfeet Custom Model are revamped with a new flex pattern. Viper recently released the easy-to-see, synthetic Vector series. Considering the current trend of innovation, how will we propel ourselves into waves of the future?

-KS

Special thanks: Greg Deets, Fred Simpson and Mel Thoman

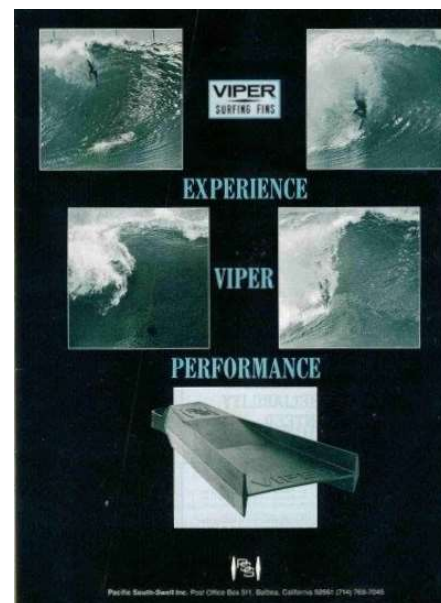
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(https://swelllinesmagdotcom.files.wordpress.com/2014/04/10248946_764914376859630_393273153_n.jpg)

Vintage Viper ad with Mel Thoman, Fred Simpson and Terry Wade.

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