

Opportune Afterthoughts and Happy Accidents

By Dennis Payton Knight

Inventions are often more a product of afterthought than of forethought. Take the windshield wiper. As the horseless carriage began running ahead of the horse, a barrier was added as an afterthought to break the wind as it dashed through the atmosphere.

The adaptation of the windshield kept the elements outside, away from the driver and passengers; but rain, sleet, slush and snow still beat against it, clouding and even completely covering the glass. The driver often had to stick his head out to see the road. Mary Anderson of Alabama solved this in 1903 with another opportune afterthought, the innovation of a rubber squeegee mounted on a pivot and controlled by a lever from inside. It was the windshield wiper, an invention unsurpassed, never needing another afterthought, unless you count the motor.

Successful inventions have found new roles as happy accidents, the first-cousins of afterthoughts. In 1943 Richard James developed an industrial equipment stabilizer, a spring to keep equipment steady and safe in shipment. One day he inadvertently knocked one from a shelf and, instead of falling like a thud, it walked itself down, settling neatly in its original configuration, though upside down, on the floor.

He took the wonder home to show his wife, Betty, and she recognized immediately the potential for a new toy that is still popular today. They called it the Slinky, after a Swedish word meaning sleek and sinuous. It became a toy for the ages and decades later, by yet another opportune afterthought, soldiers in Vietnam found the Slinky useful as an antenna.

In 1922, at Minnesota's Washburn Crosby Company, bran gruel, accidentally spilled on a hot grill by a dietician cooking it for intestinally-distressed patients, led to something much tastier, a dry, flaky substance. It took two years to perfect the product and make it suitable for packaging, but by 1924 boxes of Washburn's Gold Medal Whole Wheat Flakes were on grocers' shelves. As another opportune afterthought, the name was changed to Wheaties, and by 1928, the Washburn Company became General Mills.

In 1853, at age fifteen, William Perkin began his studies at London's Royal College of Chemistry, under August Wilhelm von Hoffman, when the science of chemistry was still primitive. Hoffman had a notion it might be possible to synthesize quinine to treat malaria, and he charged his young student to do experiments testing the theory. During his Easter vacation in 1856 Perkin took the project home and worked on it in his crude apartment laboratory. There, he created a mixture, an oily sludge, which when extracted with alcohol, produced an intense purple substance he called mauvine.

Their work eventually led to a treatment for malaria, and Hoffman got the credit. But by afterthought the student, William Perkin, a budding artist, sent samples of his happy accident to a Scotland dyeworks, and in 1856, William Perkin, still only eighteen, patented the color mauve.

And that is how we got the purple windshield-wiper.

