

# The William Hoskins I Know

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Not far from Dr. Mariner's laboratory on Clark Street was an electrician's shop. Here, the doctor's student-apprentice, Master William Hoskins, aged seventeen, was wont to linger longingly over the magnets, coils, switches and other wonderful things electrical. Out of the money he earned washing dishes and preparing samples for the learned doctor's analysis, he sometimes invested ten or fifteen cents in a bit of wire for experiment at home. It was one Saturday that the proprietor of the shop, attracted by the boy's bright face and earnest ways, asked, "How would you like to work among all these things? We need a boy to sweep out and run errands and will pay five dollars a week for a start." William was sure he would like it, but he had recently acquired a job that he liked very much, too, and the pay was the same. Could he have Sunday to think it over?

A great deal hinged on Monday morning's decision. The subject of electricity was an enticing one and had William known that the electric shop was destined to become the Western Electric Company, he might have wavered. As it was, he chose to remain with Dr. Mariner, and that is why today we are privileged to celebrate the golden anniversary of William Hoskins' espousal of chemistry, to which he was, and has ever remained, true, though his interests have been many and diverse.

Were we commemorating the fiftieth anniversary of William's first interest in science, the occasion would be four years overdue, for at the age of thirteen he had taken up the microscope and was collecting specimens from far and near. His letters to our consular representatives encircled the globe in search of at least one hair from every pair that went into the Ark with Noah. Among the thousand and one mounted slides that he still preserves may be found specimens contributed by beasts of the jungle no less than of the barnyard. Incidentally, new light is shed on the duties of our foreign representatives. William was seventeen when the Illinois State Microscopical Society, recognizing his ability and his affability, elected him its Secretary. From that day to this the microscope in his hands has been the faithful ally of chemistry.

It was this same year that William started with Dr. Mariner as pupil and laboratory assistant. He served his teacher-em-

ployer intelligently and faithfully. In due time the consulting business became a partnership under the name, Mariner & Hoskins, and Ida May Mariner became Mrs. William Hoskins.

He was nineteen when he invented the hydrocarbon blowpipe. His father, who was his guide and supporter, was obliged to sign for him the application for letters patent. Which of us, who can remember back a few decades, does not recall the prominent place in all laboratory supply catalogs given to the Hoskins' hydrocarbon furnaces. They are still there, but less conspicuous today than the Hoskins' electric furnaces. This, however, is another story.

The chemical consultant must be faithful in the furtherance and protection of his clients' ideas and projects. How many industrial projects owed their success to the wise and faithful guidance of William Hoskins, we can only guess. With some of these projects he allied himself personally, generally with the enrichment of others.

Most noteworthy among his personal successes is Nichrome metal, worked out with the aid of Albert L. Marsh, in whose name alone patents were applied for. William had shortly before become wary of joint patents, having had an application rejected on the ground that one or the other of the applicants might be the inventor, not both. Marsh had come with some ideas about thermocouples and nickel-chromium alloys for such use. He worked in William's laboratory and under his direction. At first they planned to light the farmer's home by electricity generated in his cook stove, and later they proposed supplying current to the electrical equipment of the new-born gasoline carriage. The magneto spoiled all this, but if it hadn't William has always felt certain that the sputtering gasoline torch playing on the thermocouple at the rear would never have been popular with the back-seat driver.

But, as so often happens in research, success came in a way not anticipated. The high electrical resistance and permanence at high temperatures of one of the nickel-chromium alloys suggested its usefulness as a heating element in electric ovens and furnaces. With all his imagination, William did not entirely foresee the possibilities of this remarkably alloy. He knew all about its high electrical resistance and its free-