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Subject: A little comparison

A little bit of info on Marcel Vogel excerpted from: http://www.vogelcrystals.com/legacy_of_marcel_vogel.htm Mr. Vogel was a scientist whose credentials weren't sufficient for the brilliant conjurer James Randi (see Mr. Randi's credentials following this excerpt):

Marcel Vogel

At the age of twelve he had synthesized the chemical compound 3-amino-phthalaz-1-4 dione. This compound, when mixed in water with potassium ferro-cyanide and hydrogen peroxide, produces a chemi-luminescence that matches the light of the firefly. He continued to try to make a set of phosphors that would produce light in a tubular form. This was before the advent of fluorescent lights, but Marcel had seen a white powder of phosphor, in a tube, that would convert the ultra-violet radiation in the tube into a visible form – visible light. This was his main area of interest and even as a grammar school student he visited the Mechanics Institute and translated, from the German, original articles on phosphor chemistry. He then set about duplicating the outlined experiments in his own amateur laboratory.

Marcel had synthesized and manufactured a set of phosphors before he was fifteen years old. His vision, at this early age, was that the proper phosphor system would be a rare earth phosphor. The cation, or positively charged ion would be composed of a rare earth compound like Europium, and the anion, or negatively charged ion would consist of a tungstate or silicate structure. These ideas came from the translated scientific papers that were published in the "Analan der Physik" and other German scientific publications of the time. His objective before going to college, based on the answer to his years of prayer from the ages of six to twelve, was to become of phosphor chemist. He was able to see the blending of chemistry and physics that would bring about the advent of solid state physics. As was the case throughout his life, Marcel wanted to be on the forefront of what, in his vision, was the science of the future.

Throughout his high school and college years Marcel systematically researched all the existing publications and papers in the field of luminescence. There were no courses available so he had to teach himself. He majored in chemistry and physics at the University of San Francisco, working at night to fund his education Unfortunately, due to deteriorating health, he was unable to graduate with his class. From 1940 his education was completed privately with Doctor Peter Pringsheim. The two met when Doctor Pringsheim, a German refugee professor, was attempting to find information about luminescence at the university library. The librarian referred him to a young student, Marcel Vogel, who had apparently read everything in the library on the subject and would be of more value to him than the librarian. Two years later the two men jointly published The Luminescence of Liquids and Solids and their Practical Application (Wiley Interscience-1943). This book has since gone through three editions and was

translated into German in 1953. It is currently out of print.

After the publication of the book, Vogel Luminescence Corporation was formed. From 1944 to 1957 Marcel pioneered in the manufacture of fluorescent bulletin paints for outdoor signs and billboards. He created a complete set of artist media fluorescents including fluorescent oil colors, phosphorescent paints, fluorescent chalk, crayons, tempers (day-glo) colors, bulletin paints, invisible ink, tracing and tagging powders used with insecticides detectable with portable black lights, black lights being another Vogel creation. Black light kits were also created for the detection of cancer, rodent contamination, and milk inspection.

With Ralph Benson, Marcel then published a paper entitled Vulvar Fluorescents: The Early Detection of Pregnancy and the Advent of Carcinoma. Vogel Luminescence also patented an egg candler that combined both ultraviolet and visible light to detect the Pseudomonis fluorescence bacteria that are present in eggs laid by chickens contaminated with the bacteria.

During this time with Vogel Luminescence Marcel also did part-time consulting work for IBM. With Ralph Flores and Don Johnson he developed a magnetic coating formulation that is still in use today on IBM hard disks. It was a stable, adhesive coating of magnetic materials for a 24 inch diameter hard disk that demanded a completely new composition of matter.

It should be noted that this magnetic coating did not come about by normal linear science. For many unsuccessful weeks, formula upon formula were created with horrifying results. The coating would fly off the aluminum disk when the drive was turned on or it would bubble up like some pox ridden biological specimen. Finally, at the point of total exhaustion in his 18 to 20 hour workday, Marcel collapsed into sleep at his tiny laboratory. Later, as he groggily awoke, he was in the midst of a dream – a can of molasses floated in the space before him with the words "infinite viscosity" resounding in his ears. He knew immediately what needed to be done. Two supposedly incompatible chemical agents were brought together, the results of which we still use today.

In 1957 Vogel Luminescence was sold to Ultra Violet Products and Marcel joined IBM as a full time research scientist. He was one of the "Big Blue's" few non-lettered scientists. Such creativity and genius could not be allowed loose on the streets, despite the lack of a diploma. He became one of the most prolific new patent inventors in IBM's Data Products Division history. Included among the many inventions are patents in the field of magnetic recording media, liquid crystals, and the creation and development of rare earth phosphors. Marcel also was granted many patents in the field of Opto Electronics. This was for work on photo-relays for analog to digital converters, as well as work with rare earth phosphors, which resulted in the development of the red hue for color televisions. His work with liquid crystals helped realize their emergence into everyday life in the form of digital displays on everything from watches to radios. He also received patents for the degassification of liquids, Dark Field Microscopy and its use in surface analysis, organic and inorganic photoconduction and more.

In 1969 Marcel gave a course in creativity for engineers at IBM. It was at this time that he read an article in Argosy magazine entitled "Do Plants Have Emotions?" about the work of polygraph expert Cleve Backster into the responsiveness of plants to human interaction. Despite initial rejection of the concept of human-plant communication, he decided to explore these strange claims.

And now **a little bit of information on James Randi, who has claimed that the late research chemist Marcel Vogel "wasn't very smart" and who inferred that Mr. Vogel "bought" his patents:**

I once pulled a bunnny out of a hat. Ta da.