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A Chat With a Brain Builder.

Professor Gates Describes His Experience as to Mind Building and Tells How Man Can Add to the Brains Which God Has Given Him.

For a Child's Brain May Be Built Up—Queer Experiments on the Brains of Dogs, Donkeys and Guinea Pigs—Old Brains Renewed—How All Men May Become Inventors—The Mind of a Microbe—A Look at a Diatom Through Professor Gates' New Microscope, Which Magnifies 5,000,000 Diameters and 200 Times as Much as Any Microscope in the World.

Washington, D. C., Oct. 2, 1897.—I looked through a microscope this afternoon which, I was told, will probably revolutionize our knowledge of the material world. It has been invented some time during the present month. Its inventor is Professor S. L. Gates, the director of the laboratory of psychology and physiology of this city. This new microscope, Professor Gates says, exceeds the power of the best present microscopes as much as the present microscopes exceeds the power of the human eye. It will magnify an article now seen by the aid of the microscope 200 times its diameter, and it is another thing to me that he believes it will be able through it to photograph images which are one hundred million times the diameter of the original object. Of course, I do not know that it is impossible for the camera to go to such lengths. They carried me a million beyond the wildest dreams of the microscopists, and they may open a new world of scientific investigation.

A LOOK AT A DIATOM.

The object which was placed in the microscope for me to see was a diatom, one of the smallest living beings that can be seen with a microscope. Diatoms are invisible to the naked eye. Professor Gates tells me that the eye is so small that the pinhead of its pupil in which they live often has a score of two million diatoms in it. After a dozen of these little things lie in a microscopical slide so big as a silver dollar they are placed in a little Brewster piece. I first looked at them through a microscope which magnified them 1,000 times. Through this they appeared like little bits of dust in strange shapes. Some were like a little Indian pappoose and one was the most perfect representation of a human face I ever saw. This magnified two thousand diameters. The magnification was so great that one of the diatoms was all we could see, it was now in the shape of a big oblong with the running through the center, and it was so transparent that it looked like a little piece of the finest silk handkerchief. It might have been made of the most delicate wafer. But it looked as far from being thin as anything I ever saw. The lens microscope was then adjusted to a power of 5,000,000 diameters and I looked into it again. But I could only see one of the little specks. I could see that it was a little speck of a thing, but that was all. There were some more in the same Brewster piece and Prof. Gates said that, by a higher adjustment, we could see them.