HyperSciences looking to drill for geothermal power using ram accelerator

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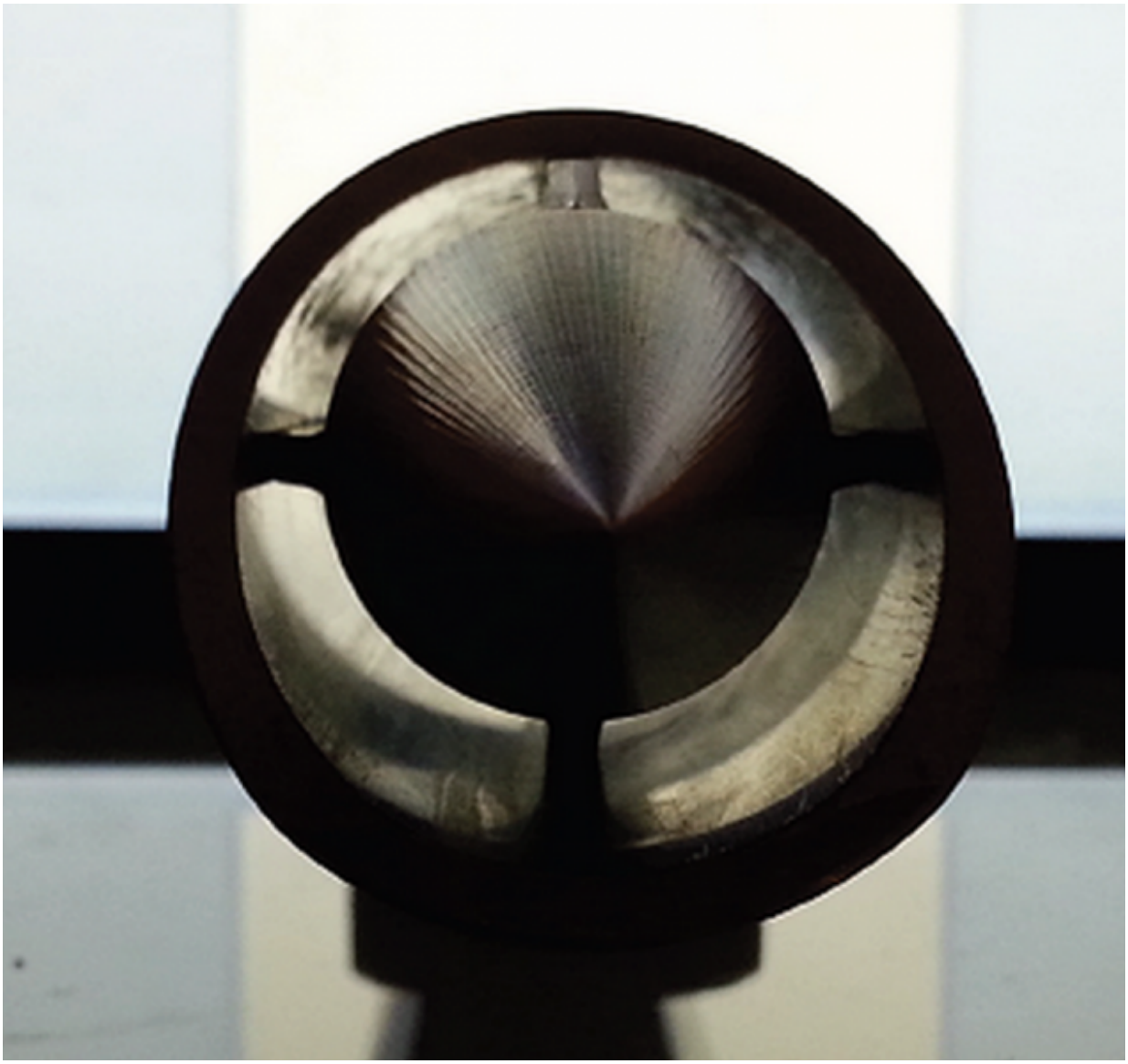

Washington State based drilling technology company HyperSciences, headed by aeronautical engineer Mark Russell has applied for a patent on a new type of ram accelerator that would be used to blast very deep holes in the ground—to access geothermal resources. He has told the press that he believes that geothermal power is the wave of the future, and not just for creating electricity—he thinks we may one day use it to make space travel commonplace.

HyperSciences is operating under a grant from Shell Oil, which quite obviously has a huge stake in both drilling technology and new energy resources. The company is experimenting with different designs for what is in essence a very powerful gun—"bullets" fired from it at very high velocity would cause whatever is struck to vaporize, along with the projectile. Russell claims that once they get the gun right, it could be used to drill deep enough, to access geothermal resources at depths up to two miles.

Geothermal power has made news recently, in places like Iceland, where it is being harnessed in very big ways—but not all parts of the planet have such a source so close to the surface. Traditional drill technology has proven to be too costly to access them, thus new ideas are being taken very seriously by corporate giants such as Shell.

The idea at HyperSciences starts with a projectile loaded onto a ram accelerator—gas is pumped in and then ignited, causing the pressure in the chamber to increase, pushing the projectile forward, reaching speeds of up to 4,500mph. The gun is different from traditional firing mechanisms because the accelerator is used as both a barrel and chamber. It is actually a form of ramjet technology—one shot would create a hole in the ground, multiple shots would create deeper and deeper holes and that is the ultimate goal, to create a gun that could blast

holes to any depth required at a much lower cost than traditional drilling. Russell has said the team is also looking into the possibility of adding plastic explosives to the projectile to increase the hole depth with each shot.