



# TENNESSEE INVENTORS ASSOCIATION

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MARCH MEETING HIGHLIGHTS

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## Condensed call for complete version including photos and graphics

Igor Alexeff, shown below, illustrates the principal of the Tesla coil using a colored fluorescent tube. The coil generates an energy field of such strength that the tube actually glows without requiring connecting wires. The coil, actually a transformer using a special winding technique converts typically low voltage sources to such a high potential that many effects can be obtained. While useful chores may not be among the better uses of the device various special effects can be developed. Many are used in the process of activating plasma devices. Motion pictures have on occasion, produced spectacular images to enhance certain movies.

Using principals invented over a hundred years ago by Nicola Tesla the simplified diagram below shows the electrical properties of the Tesla coil. Precaution is needed because of the extremely high potentials that develop. There is a call for adequate insulation and grounding to prevent harmful injury

### ED NOTE:

*If your curiosity is sufficiently aroused, take the time to study some of the many versions of this interesting, phenomenal, apparatus. Search the Internet using the keyword "Tesla Coil" and you should find references to many versions of the coil including a sampling of very spectacular pictures. Some models generate considerable amounts of energy that can simulate lightening bolts for scientific study. Some mentioned can even produce as much as forty thousand watts. The voltages developed can exceed hundreds of thousands of volts. You should also find that beyond the demo model we have seen, some extreme component differences are needed to accomplish the effects just pointed out.*

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To round out the days activity Alexeff exhibited a series of overhead slides depicting his invention, "The Plasma Antenna". Better known, perhaps, by it's intended use "Stealth Antenna" which signifies that the device when installed on aircraft or aboard seagoing vessels, defies detection by radar systems. The end result, Igor pointed out renders a stealth aircraft almost invisible by having an antenna that does not add to its radar return.

As for ships, we find that when the antenna is not transmitting it is almost transparent. Here again opponents are more unaware of a ships presence extending the advantage of surprise, if not safety. We can see below a prototype of the plasma antenna that the United States Navy has an expressed interest in developing.

*You might say, " that looks like an ordinary, bent, neon tube or fluorescent bulb". You are almost right except that the tubes have a plasma interior and are excited by strong radio waves. They function at almost any frequency and at powerful wattage levels. Again, when turned off they are virtually not there.*

*Following a short break Alexeff offered a video movie of his presentation recently done in England. He was an invited speaker before a scientific group. His narration there revealed the principles of his Plasma Antenna.*

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**TIA MEMBERS IN GOOD STANDING WILL HAVE WITH THIS ISSUE, A MEMBERSHIP ROOSTER .THE INFORMATION IS PRIVATE TO OUR ASSOCIATION ONLY. YOU ARE ASKED NOT TO DISSEMINATE TO OTHERS.**

## **IN THE NEWS**

You will surely remember the articles and discussions about the inventor Jerome Lemelson frequently held to be a great innovator. The notable framer of many novel ideas is not always thought of in the kindest of ways. In many cases his patents at the time were not necessarily complete or workable. It is noted in an article supplied by Igor Alexeff found in the current issue of Machine Digest that many of Lemelson's inventions are not enforceable because infringement claims were unreasonable or had been too long delayed. Whether you think of Lemelson or his heirs, or the Lemelson Foundation as saint or sinner you may find some new thinking in order if you read the MachineVision magazine article just mentioned. It will be posted on our bulletin board at the April meeting.

**NEXT MEETING APRIL 17, 2004**

### **FEATURED SPEAKERS**

Presentations in April will be by TIA members. Both have been involved in the world of invention for a considerable amount of time.

Campbell will be telling about his patented invention that is a grading device for teachers that will give them a better way of judging and documenting the performance of students. His experience with a former colleague will also be most intriguing.

Martin Skinner is a veteran patent agent. He has invented a new tool for gardeners that is to carry and store helically coiled hoses. Neat idea! Important in his talk will be how he pursued the provisional patent application. He has stated that he intentionally prepared the application as if it were to be a full-blown utility patent application. How and why he took that route may effect your next patent plans.

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