

## **Upcoming TIA Meeting on December 15, 2007**

With the holiday season in full force, the December meeting of the TIA will be a member participation meeting. AJ Beal will conclude his presentation from last month by discussing his efforts in developing his inventions.

Also, all members are invited to make a short presentation of their current projects. Anyone who wishes to have their invention featured on the TIA web site <[www.TnInventors.org](http://www.TnInventors.org)> can bring a prototype or other information to the meeting. Pictures will be taken for the web site. Members are cautioned that they should not make a presentation (a public disclosure) of their invention if they are trying to keep their invention confidential.

## **Meeting Notes from November 17, 2007 Meeting**

**Elections held!** November is when the TIA holds their annual elections of officers and board members. The race for President was the high point of the meeting. Joe Martin is the President Elect of TIA, and Terry Brewster is our Past-President and Corresponding Secretary. The other candidates were unopposed and were elected by acclamation.

**Everyday Edisons** was discussed. Their web site is <[www.EverydayEdisons.com](http://www.EverydayEdisons.com)>. A newsletter is available on the web site. The TIA website is listed on the Everyday Edisons web site.

**Tom Kulaga** passed out a survey to the members in attendance. The survey asked questions regarding the direction the TIA should move. The results are being compiled and Tom will make a report to the membership after the results are analyzed.

**Martin Skinner** gave a report on the progress of his invention, the Koil Kaddy.

**Virgil Davis** donated several books to the TIA library.

**Igor Alexeff** gave the annual report of the Treasurer. The TIA has approximately \$2300 in the treasury. The major expenses of the TIA includes printing and mailing of the monthly newsletter, printing of the Inventors' Guide, and sponsoring the Everyday Edisons show on PBS.

**AJ Beal** made a presentation about his current project, a rotary engine. AJ works at ORNL and just hit the 30 year mark there. He started as an instrument technician and has moved up to staff engineer.

AJ says that he like to tear things apart to see what makes them work. AJ has Patent Number 5,634,783, titled " Guided-vane rotary apparatus with improved vane-guiding means." He is currently working an a rotary engine that uses a lot of the same concepts that resulted in his first patent.

Because AJ hopes to patent his rotary vane engine after he completes it, he did not show his current work. He described the process he followed in developing his ideas and his first few prototypes.

AJ brought in a positive displacement sliding vane pump that he passed around. The pump illustrates one type of commercially available pump. AJ used the pump to

illustrated the differences between what he is working on and what is commercially available.

AJ also had a wooden model of a rotary engine that he designed in 1991 and a metal prototype that was over 10 years old. The position of the vanes in the rotary engine is controlled by a cam groove surrounding an oval cavity.

He is working on developing and testing various seals for the rotary engine. In one test, he filled a prototype engine with petroleum jelly and then pressurized. The jelly showed the leakage paths in the engine.

His immediate primary goal at this time is to develop a working prototype. Ultimately, he wants to develop an engine that meets his specifications. AJ then discussed the Automotive X PRIZE <<http://auto.xprize.org>>. The Automotive X PRIZE has the goal of breaking the automobile's dependence upon oil and its impact on climate change. The rules are being drafted, but include building and operating an automobile that gets at least 100 miles per gallon of fuel.