The Academy also provides its members with the opportunity to nurture and support the organization that played an important role in their professional growth and development.

ABOUT AAIE

The Arkansas Academy of Industrial Engineering (AAIE) was established in 1986 to recognize the achievements of University of Arkansas Industrial Engineering graduates and to provide continuing guidance and support to the Department of Industrial Engineering.

The Academy also provides its members with the opportunity to nurture and support the organization that played an important role in their professional growth and development.

SHUR HAS RECORD NUMBER OF MOCK INTERVIEWS

A record high of thirty seven interviews were conducted during the Mock Interviews held Thursday, September, 17, 2009, in the IE Department in Bell Engineering Center on the U of A campus. Nine interviewers from Wal-Mart, ABF, Tyson, and JB Hunt conducted the interviews during morning and afternoon sessions. They also participated in a panel discussion for an After Action Review to discuss their observations during the day. Students had an opportunity to ask additional questions of the interviewers on a variety of topics such as resumes, thank you notes, and the appropriateness of questioning an interviewer about their company.

It was a great day for the students to learn more about how to practice smart interview techniques to get ahead of the competition for jobs.

It was also a great day for the Academy, the IE faculty, students, and the interviewers.

The interviewers and businesses were: Peter Hirsch ’86, ABF, Ft. Smith; Yvonne Nichols, Jackie Ledbetter, Holly Rosen, and Laura Bennett, Tyson Foods, Springdale; Eric Ervin and Frank Broadstreet ’90, JB Hunt, Lowell; and Travis Johnson, and Syam Anthony, Wal-Mart, Bentonville.

All of the interviewers are professional interviewers with their respective companies and conducted real interviews, with appropriate teaching points and critiques for the students at the end of their interviews. Each interview was scheduled for 30 minutes, and a 15 minute critique was given at the end of each interview.

(See “SHUR” - Page 11)
Greetings Academy Member and Friends,

It is such an honor to serve you as president. I thank all the past presidents and the members who have contributed over the years to bring AAIE to where it is today. As Winston Churchill once said, “We make a living by what we get, but we make a life by what we give.” I thank each of you for your generous donation of time and money which has supported the Academy, the IE students, and the department for many years.

Larry Stephens was the driving force that organized the Academy, and in the spring of 1986, fourteen graduates were selected as charter members of the Arkansas Academy of Industrial Engineering. This means that our 25th anniversary will be in 2011. I want that year to be a special year and would like to appoint a group to start planning for a 25th anniversary celebration. If you are interested in helping, please contact me.

In addition to the great leadership and legacy provided by so many of you, AAIE has received great support from the IE Department. In fact, the Academy was started when a past IE Department Head, Bob Emerson, planted the seed with Larry and others. Support from the IE Department is critical to the success of AAIE, and our current department head, Dr. Kim Needy, is a tremendous champion and advocate for AAIE.

(See “President” - Page 4)

WHICH CAME FIRST?

Peanut Butter—Peanut butter was created by a doctor who wanted to give patients without teeth a good source of protein. A few years later, the first commercial process for making peanut butter was patented by Dr. John Harvey Kellogg, cofounder of the Kellogg’s cereal company. American soldiers during World War II were served peanut butter and jelly sandwiches, a taste they brought home after the war.

OR

Margarine - This bread spread was invented as a substitute for butter, which can go bad and can be expensive. (Its invention was encouraged by a competition to come up with a butter substitute for the navy and the poor.) Margarine consists of smoothly blended oils and fats; at first, animal fats were used, though today soy and vegetable oils are used. When margarine was introduced to the American market, it was colored pink or left an uncolored white—the butter industry didn't want people confusing it with the real thing.

Margarine came first—it was invented about 1870 by a French chemist, Hippolyte Mège-Mouriès. Peanut butter was invented in 1880 by an anonymous St. Louis physician, George A. Baylie Jr. to make and package it who asked businesswoman George A. Baylie Jr. to make and package it...
FROM THE DEPARTMENT

Dear Academy Members,

Hello! We are off to a great new academic year. At the beginning of the fall term, AAIE kicked off the 2009 SHUR Mock Interviews under the leadership of Mr. Jim Hawkins and Mr. Tarek Taha. A record number of 37 students took advantage of the interviews. We are grateful for the participation of ABF, JB Hunt, Tyson Foods, and Wal-Mart who sent associates to conduct the interviews. At the end of the day, the company representatives held a panel review to provide final thoughts and recommendations to the students. The event was very well received by both students and faculty. In addition to this event, there have been many more great things happening in our department, from the addition of new team members to the achievements of our faculty, staff, and students. Let me share with you some highlights.

We are pleased to welcome Dr. Chase Rainwater who joined our department this fall. Chase received his BSIE from the University of Arkansas in 2004, and recently completed his Ph.D. in 2009 from the University of Florida. Chase’s doctoral research focuses on solution approaches to mixed-integer formulations of production planning problems with flexible demand characteristics. Dr. Ashlea Bennett will join the department in the spring 2010. Ashlea obtained her BSIE from the University of Arkansas in 2003 and is due to complete her Ph.D. at Georgia Tech this fall. Her dissertation focuses on developing automatic solution methodologies for home health nurse routing and scheduling problems. With the addition of Chase and Ashlea, the department will have 17 tenured or tenure-stream faculty.

There have been some changes in the faculty administrative roles and promotions. Dr. Nebil Buyurgan was named the Chair of the Graduate Studies Program, Dr. Manuel Rossetti takes over as Chair of the Graduate Studies Program, and Dr. Scott Mason remains as Associate Department Head. We are delighted to announce that Dr. Ed Pohl received tenure at the Associate Professor level and Dr. Justin Chimka was promoted and tenured at the Associate Professor level.

There have also been some staff changes. Mrs. Karen Standley has taken on the role as my new assistant. Karen transitions from the Program Coordinator position for the Center for Engineering Logistics and Distribution (CELdI). We are pleased to announce the promotion of Mrs. Tamara Ellenbecker to Administrative Support Supervisor. Please extend your congratulations to both Karen and Tamara when you see them. In addition, there is a new person at the front desk who is eager to meet and welcome you when you visit the department. Please join me in welcoming Mrs. Sandy (Hall) Sehon as the New Administrative Specialist II. Interestingly, Sandy’s sister, Becky Hall, graduated from our department in 2002. The final bit of staff news comes with mixed emotions. We are pleased, yet saddened, to announce the upcoming retirement of Ms. Karen Hendrix. Karen, Fiscal Support Specialist, will retire this December after 19 years of service with the University of which 9 years were in the IE department. In her position and throughout the years, she has worked with many of our students, alumni and the Academy. Karen serves as Co-Advisor with Dr. Justin Chimka of our student chapter of IE and has earned the distinction of being a beloved overseer of our students traveling with them to various regional conferences. In addition, Karen has worked closely with the Academy over the years to maintain the financial accounts and prepare the financial reports necessary for smooth operations. She will be dearly missed by all!

There were several faculty departmental awards of note for 2009. Dr. Scott Mason received the Outstanding Teacher Award, Dr. Heather Nachtman received the Outstanding Student Service Award, Dr. Russ Meller received the Outstanding Research Award, and Dr. Ed Pohl received the AAIE Faculty Member of the Year Award. Dr. Meller also received the IIE Award for Technical Innovation in Industrial Engineering and the IIE Fellow Award at the 2009 IIE Annual Conference and Exposition.
How often do you dust? How often do you dust? How often do you dust? How often do you dust?

About halfway through dinner I called the waitress over and

Not long ago I met the waitress of my dreams.

------------ Guaranteed to Roll Your Eyes --------------
MEMBERSHIP COMMITTEE

The Membership Committee needs your help to identify and recommend candidates for the Academy. The Academy is over 160 members strong, but we can always use more help to assist the University of Arkansas IE Department and offer scholarship opportunities to aspiring students.

The basic membership requirements are: University of Arkansas Industrial Engineering graduate in or before 1995, and professional activities that attest to a distinguished record in their career field.

The Membership Committee will review and certify your nominations for review by the Academy Board. After the Academy Board reviews and recommends the nominees, a ballot will be sent to all active members for final acceptance of those who are considered most qualified.

A Nomination form must be completed to provide contact information and facilitate review of the candidate's qualifications. This can be completed either by the candidate or an Academy member. You can access the form on the AAIE website at http://aaie.ineg.uark.edu/.

Nominations should be submitted no later than December 31, 2009.

If you cannot access the form, send the nominee’s name, phone number, and email address to the Membership Committee Chair:

Bryan Grimsley
AAIE Membership Chair
7108 Ellsworth Road
Fort Smith, Arkansas 72023
Phone: 479-461-6144 (C)
479-648-2652 (W)
Bryan_G_Grimsley@whirlpool.com

Nominations should be submitted no later than December 31, 2009.

If you cannot access the form, send the nominee’s name, phone number, and email address to the Membership Committee Chair:

(*)Department* - cont’d from Page 3)

Five University of Arkansas IE students were also the recipients of scholarships at the IIE Conference. Please join me in congratulating Coby Durham, Troy Long, Hugh Medal, Jen Pazour and Brittany Bogle. IE Senior Mattie Bookhout, was elected as Associated Student Government President. Finally, Dr. Steve Johnson's research article was selected as one of the 30 most influential articles in Human Factors / Ergonomics in the past 50 years and published in the Thirty Classic Contributions to Human Factors / Ergonomics Science and Engineering.

The departmental centers still represent the research thrust of the department. The Center for Engineering Logistics and Distribution (CELDi), under the leadership of Dr. Russ Meller, hosted the Material Handling Teachers Institute this summer with an aim towards teaching professors how to effectively teach material handling. This event brought 50 attendees to our campus to experience classroom lectures from academic and industry experts and tours to distribution centers at Wal-Mart and Hiram Walker. The group also enjoyed a Naturals baseball game and a picnic at Devil's Den State Park just to name a few of the activities. CELDi will host its next advisory board meeting in Chicago on November 4-5. There have also been several new additions to the Center for Innovation in Healthcare Logistics (CIHL), under the leadership of Dr. Ron Rardin. We are delighted to announce the addition of Mr. Dewey Freeman, AAIE Scholarship Chair, as CIHL’s new Strategic Collaboration Director. Dewey comes to us with numerous accolades, and we are pleased to add this position with the rest. CIHL also secured a second Post-Doc, Dr. Vijith Varghese, who recently completed his Ph.D. in IE at the University of Arkansas under the supervision of Dr. Manuel Rossetti. Also, please join me in welcoming Mrs. Stacie Bloomfield who takes over as Administrative Support Supervisor for CIHL. Dr. Heather Nachtman, Director of the Mack-Blackwell Transportation Center (MBTC), announced a recently completed project worked on together with Dr. Ed Pohl entitled Rural Transportation Emergency Preparedness Plans that investigates the disaster relief and recovery needs of rural communities and provides an assessment tool for evaluating transportation-related emergency preparedness for these communities.

(SEE "Department" - Page 12)
Women Inventors

Although her two patents were in her husband's name, Sibilla, or Sybilla, Masters was among the first, if not the first, American to receive a patent. No record of Masters' date or place of birth exists, but it may have been in the mid to late 1670s and probably in Bermuda. Her parents, William and Sarah Righton, were Quakers. Her father was a merchant marine who may have emigrated to New Jersey from Bermuda in 1687. Sibilla married Thomas Masters, a successful merchant from Philadelphia, Pennsylvania, around 1695. After they were married, he had a large mansion built in Philadelphia overlooking the Delaware River, the fruit of overseas land investments. He held several political posts, including mayor of Philadelphia from 1707 to 1708.

Sibilla Masters traveled to London between 1712 and 1715. During this time, she designed a corn pulverizer which cleaned and cured Indian corn grown in the American colonies. Master's invention consisted of a stamp, or pestle, that, when tripped, descended through a wooden cylinder to a mortar, which held the corn. The action of the stamp turned the corn into meal, which was then transferred to bins for drying, or curing. It corn meal was called Tuscarora Rice.

In 1714, Thomas Masters acquired a grist mill where the corn meal was produced for sale in the Philadelphia area. It was offered as a cure for consumption, an early term for tuberculosis, though it was nothing more than a food product. In 1715 an English patent was issued to Thomas Masters for Sibilla's invention, since, by law, women were unable to receive patents.

In 1716 Masters, still on her own in England, secured another English patent in her husband's name. Her second invention involved a process by which straw and palmetto leaves were formed and stained for the adornment of women's hats and bonnets. Unfortunately, no diagram or description of the process exists. Less than a month after the patent was issued, Masters opened a shop in London, the West India Hat and Bonnet, where she sold head pieces and furniture padding made from her straw and leaf treatment. Masters' business venture was short-lived, however, and she was back in Philadelphia by mid 1717. She secured the same two patents with the colony of Pennsylvania, once again in her husband's name. It is not known if she pursued her ventures any further after this. While Sibilla Masters is recognized for her inventiveness and attempts at marketing, the real significance of her work remains her bold venture into a realm that was generally exclusive of women.
Scholarship News

New Scholarship Endowment Campaign Initiated

The Arkansas Academy of Industrial Engineering (AAIE) has a remarkable record of providing scholarships to industrial engineering students at the University of Arkansas. Over our history, we have raised over a million dollars for our various scholarship endowments. Yet, given that accomplishment, we still need to do more.

Here’s the situation. The book value of our endowments has been reduced by the general economic trend of the past year or so. Similarly, the rate of return from the endowment funds has decreased for the same reason. The good news is that demand for scholarships is strong, and the competition for attracting students is keen, as highly qualified students are attracted to IE and to the University of Arkansas Industrial Engineering Department. AAIE wants to remain as a strong asset to the Industrial Engineering Department by continuing to meet the needs for scholarships. We also want to provide scholarship grants of adequate size to attract and retain students as they face increasing college costs.

After discussion with the AAIE Board, we are initiating a campaign to increase our AAIE Academic Scholarship Endowment by $100,000 over the next 18 months. We would like to have 100 members pledge and give $1,000 each by the 2011 annual meeting. The pledge can be paid as $500 by the 2010 annual meeting and $500 more by the 2011 annual meeting. The AAIE Board agreed to take the lead in contributing to the campaign.

Of course, any contribution amount is more than welcome as we always want to encourage broad participation from our membership. As a reminder, contributions by members totaling $1,000 are recognized as “John Imhoff Fellows" with a plaque and lapel pin. We would like to recognize 50 new Imhoff Fellows among the contributors to this campaign. All contributors to this campaign, regardless of amount, will be recognized by name only in the Decahedron as the campaign progresses. We recognize that the current economic environment has put increased pressure on everyone’s budget and financial situation, and this is not the best time to ask for additional contributions. However, we hope that each of you can find a way to participate at any level and help IE students succeed.

Please make your contributions payable to “University of Arkansas Foundation” and mail to: AAIE, Industrial Engineering Department, 4207 BELL Engineering Center, Fayetteville, AR 72701. Mark your check “2011 Campaign” in the memo line.

Thank you in advance for your support of the 2011 scholarship endowment campaign. As always, thank you for your past and continuing support for the AAIE, and for the Industrial Engineering Department.

Four surgeons were taking a coffee break and were discussing their work.

The first said, "I think accountants are the easiest to operate on. You open them up and everything inside is numbered."

The second said, "I think librarians are the easiest to operate on. You open them up and everything inside is in alphabetical order."

The third said, "I like to operate on electricians. You open them up and everything inside is color-coded."

The fourth one said, "I like Engineers...they always understand when you have a few parts left over at the end..."
In the 19th century, craftsmen who made hats were known to be excitable and irrational, as well as to tremble with palsy and mix up their words. Such behavior gave rise to the familiar expression "mad as a hatter". The disorder, called hatter's disease, was caused by chronic mercury poisoning from the solution used to treat the felt. Attacking the central nervous system, the toxin led to behavioral symptoms.

Hmmm... "If we knew what it was we were doing, it would not be called research, would it?"

Albert Einstein

In 1834, Charles Babbage (1792-1871) designed the Analytical Engine, the precursor of the computer. He was unable to obtain funding for it from the government, who thought it would be worthless.


Global Studies

John L. Imhoff Global Studies Endowment

The John L. Imhoff Global Studies Endowment (GSE) continues to fund increased student demand for overseas study. Five students were approved for GSE scholarships in 2009 for a total of $8,500 in total awards, ranging from $1,500 to 2,500 each. The students completed overseas study in England, Greece, India, and Italy.

SCHOLARSHIP APPLICANT TRENDS

<table>
<thead>
<tr>
<th>YEAR OF STUDY</th>
<th>NO. of STUDENTS</th>
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<tbody>
<tr>
<td>2005</td>
<td>1</td>
</tr>
<tr>
<td>2006</td>
<td>6</td>
</tr>
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<td>2007</td>
<td>4</td>
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<td>2008</td>
<td>3</td>
</tr>
<tr>
<td>2009</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL ANNUAL SCHOLARSHIPS AWARDED

Based on GSE historical data, student demand for the scholarships appears to be trending to summer study on a 2:1 basis, perhaps due to the approximate 40 percent cost as compared to the fall/spring overseas study costs of $10,000 to $20,000 and possibly less disruption of the normal fall/spring coursework schedules.

Maximum student demand for the GSE scholarships has been 6 students per year or less (see chart), however future demand is expected to increase significantly as the GSE scholarship amounts are increased as planned in the future. Currently, the GSE scholarships provide only approximately 15 percent of a student’s total costs for an overseas study experience.

Dr. John Imhoff desired that the AAIE membership not be solicited for contributions to the GSE citing the Academic and Financial Need endowments would have more impact to more students. However, if you have any information that the GSE committee could use to solicit corporate foundations, please do not hesitate to contact me at wbdenton@swbell.net and we shall pursue any leads accordingly.
From the Editor

AAIE members often ask me questions regarding the correct procedures we use for various activities. Here are a few of the questions and my responses:

What is the correct way to pay my annual dues and/or make contributions to the AAIE scholarship endowments?

Mail your payment to:
Arkansas Academy of Industrial Engineering
Industrial Engineering Department
University of Arkansas 4207 Bell Engineering Center
Fayetteville, Arkansas 72701-1201

Make the check payable to the University of Arkansas Foundation, and note on the check memo the purpose of the payment, such as annual dues or the appropriate scholarship you intend to contribute to.

Can I make my payment with a credit card?

Payment with a credit card is not recommended. The University of Arkansas Foundation is charged a transaction fee, and your payment/contribution is diluted or reduced by the transaction fee. Additionally, the AAIE would not be aware of your payment if the foundation credited the payment to the wrong account. An incorrect posting could go undetected until you received your next dues invoice and called it to our attention.

Members in the News

Duane Neal (BSIE 1956, AAIE 1988) was elected First-Vice Chairman of the Republican Party of Arkansas in December 2008. Duane previously served as Chairman of the Rules Committee of the RPA (2001-2008). Duane was an Arkansas Delegate to the Republican National Convention held in Minneapolis-St. Paul in September 2008.

Dewey Freeman (BSIE 1974, AAIE 1995) accepted a position in July 2009 as Strategic Collaboration Director with the Center for Healthcare Logistics (CIHL) directed by Dr. Ronald L. Rardin, PhD., John and Mary White Systems Integration Chair. Dewey brings over 20 years of healthcare experience to CIHL and will represent the Center to sponsors, healthcare professionals, and the public, including collaborating on promotional materials and the Center website.

Jim Hawkins (BSIE 1965, AAIE 1986) received the Distinguished Alumni Award by the College of Engineering at the Engineering Alumni Awards banquet held April 18, 2009, at the Embassy Suites Hotel in Rogers, Arkansas. Jim is the founder and President, Hawkins and Associates, Inc., a management consulting firm serving the needs of healthcare organizations for over 30 years.
ANCIENT ENGINEERING

It is being reported that underneath the Giza Plateau is an enormous and complex underground system complete with natural caverns, snaking passageways, ancient chambers, subterranean rivers, and hydraulic underground waterways. This 'City of the Gods' was purportedly discovered after the declassification of SIRA, a ground-penetrating radar, which has been mapping these subterranean features since 1978. A crew led by scientist Dr. Jim Hurtak has explored the megalithic metropolis, risking life and limb to penetrate into the massive chambers (supposedly bigger than our largest cathedrals), in hopes of securing ancient artifacts and caches of Egyptian records.

This has been thought to be the same labyrinth described by the Greek historian Herodotus: "There I saw twelve palaces regularly disposed, which had communication with each other, interspersed with terraces and arranged around twelve halls. It is hard to believe they are the work of man. The walls are covered with carved figures, and each court is exquisitely built of white marble and surrounded by a colonnade. Near the corner where the labyrinth ends, there is a pyramid, two hundred and forty feet in height, with great carved figures of animals on it and an underground passage by which it can be entered."

There have been many speculations as to what the City of the Gods was used for; some argue that here the Egyptians were educated in their mystery schools, still others believe that the crisscrossing tunnels were used as an ancient subway system. What we do know is that there was an expedition that explored the underground city and made a documentary about their discoveries named "Chambers of the Deep." The film was shown to private audiences, but for reasons unknown, withheld from the general public.
KAREN HENDRIX RETIRES
Karen Hendrix announced her retirement from her duties as Fiscal Support Specialist at the I.E. Department effective December 18, 2009. Karen has served the I.E. Department since 2000 and previously worked for the Arkansas Center for Tech Transfer an Engineering Extension service at the U of A for ten years.

In addition to being a key staff member of the I.E. Department, she took ownership of the AAIE database that had just been developed for membership tracking and financial management. The new system is in-step with the U of A Foundation and the AAIE Procedural Guideline manual.

Karen’s tireless work to assist with organizing the AAIE annual meetings, provide the AAIE Board with accurate financial reports for all of the Board meetings, and her many related efforts during her support of all AAIE operations and projects are greatly appreciated by the AAIE.

Her career accomplishments were celebrated with her at the AAIE Board meeting on October the 24th.

Dr. Neely Receives Award

Dr. Kim LaScola Needy, Department Head, Industrial Engineering at the University of Arkansas is the recipient of the ASEE Engineering Management Division's 2009 Bernard R. Sarchet Award. This is the highest award of the Engineering Management Division for recognizing a lifetime achievement in engineering management education. This award, named after one of the founding fathers of the academic discipline of engineering management, is awarded annually to an individual who has made significant contributions over an extended period of time to the discipline and the Division and who exemplifies the highest standards of the professorate in engineering management.

(*)SHUR* - cont'd from Page 1)

Some of the teaching points dealt with body language such as eye contact, posture, and confidence with their resume, tell about successes not on their resume, have questions for the interviewers about their company, give positive answers to questions, and stress their leadership activities in school, church, civic, or summer jobs.

Drs. Kim Needy and Justin Chimka joined the interviewers for lunch in the IE conference Room and thanked them for conducting the interviews. Each interviewer expressed an interest to come again next year to participate in the mock interviews.

Also assisting with the Mock Interviews was Tarek Taha, ('91 & '93) who is the Vice Chairman of the SHUR Liaison Committee, and Donna Young ('92), an Academy member who helped keep the interviews on schedule. The interviews were publicized with flyers posted around the IE Department, and personally talking to students in the classrooms about the mock interviews. Karen Standley and Karen Hendrix helped tremendously with the logistics and other support.

If any AAIE member would like to be on the SHUR Committee to assist in next years’ projects, recruit interviewers, or just helping us, please contact me at jimhawkins@sbcglobal.net, or Tarek Taha at Tarek_Taha@jbhunt.com.

10 percent of all human beings ever born are alive at this very moment.
You share your birthday with at least nine million other people around the world.
A poem written to celebrate a wedding is called an epithalamium.
A final exciting bit of news is that the department was selected to host the 2010 American Society for Engineering Management (ASEM) Annual Conference. This event will be hosted at the Embassy Suites in Rogers, Arkansas on October 13-16, 2010. The Planning Team consists of Dr. Ed Pohl, Conference Chair; Drs. Heather Nachtmann and Kim Needy, Program Chairs; Dr. Ernie Fant, Director of Tours, and Mrs. Karen Standley, Director of Facilities & Logistics. The conference theme will be Lean and Green: Building a Sustainable Future Through Engineering Management. You will be hearing much more about this upcoming event as we solicit the involvement of the Academy.

I am certain that you will agree, that the department is doing great things, and I can promise you that we plan to continue on this trajectory. In closing, don’t be a stranger. If your travel plans bring you onto campus, please stop by to learn more about some of the wonderful things that we are doing. Perhaps we will even see you for the Homecoming festivities on October 31?

Together we can make this an even greater program!

Warmly,
Kim Needy

During the French Revolution, three professionals were arrested and convicted of having bourgeois values. They were a doctor, a lawyer, and an engineer. They were to be led to the guillotine one by one. The crowd was roaring with anticipated pleasure. First up was the doctor. How dare he enrich himself through other people’s illnesses? Access to basic health care is a right, right? The doctor was placed in the guillotine, and the lanyard was yanked. The blade started on its massive, implacable way down. And lurched to a stop. The official in charge declared that it would be inhumane to make the doctor suffer this way more than once, so he was setting the doctor free. The crowd howled. The executioner checked his equipment. All was in order. He put a small tree branch in, and successfully lopped it in half. He re-sharpened the blade. Next up was the lawyer. Who needs an excuse to wish such a lying, cheating scoundrel dead? The crowd was thunderous in its applause. The lawyer was placed in the guillotine, and the lanyard was yanked. Again, the blade stopped part-way down! The presiding official once again said that he would set this prisoner free because of the unusual circumstances. The crowd screamed in frustration. Now came the engineer, a man whose innovations and devices were costing jobs. The crowd fell silent. The executioner checked and re-checked his equipment. As the engineer was marched up to the guillotine, he looked carefully at it, and said, "Wait. I see your problem...."