AUTM/SUPA - A BRIEF HISTORY

As one of the seven original founding members of SUPA, and one of the few still above ground, I have been asked to submit a brief history of the formation of this organization. The reader should be cautioned that this account is tempered by the author's personal perception, as well as his recollection of these events.

There actually were a number of historical acts and events that long predated the formation of SUPA which should be placed into context for a proper understanding of why AUTM exists today.

The logical starting point for us is the Constitution, since this is the source of all or our intellectual property rights. Our founding fathers knew that if this new country was going to grow and prosper, or perhaps even survive, it would be necessary to draw on the creative talents of its people. (Washington, Jefferson, and Franklin were all accomplished inventors - in addition to their other talents.) To this end, Congress was vested with the power to promote the progress of science and the useful arts by securing, for limited times, to authors and inventors, the exclusive rights to their writings and discoveries (Art. 1, Sec. 8) It should be noted that at the time this was written, the ability to read and write was not common, and the word "science" referred to writing skill. (There were virtually no public schools). The corresponding rights granted were to authors for their writings. This dichotomy in the language is carried through to relate useful arts to inventors and their discoveries. However, the Supreme Court, in a number of decisions, has given the word "science" its more contemporary meaning. And, what constitutes "useful arts" has become increasingly complex as our economy has become increasingly complex.

The words "exclusive rights" are also worthy of examination, since these are tantamount to a monopoly for a limited time. The founding fathers were well aware of the evils of the "odious monopolies" dispensed by the Crown. The right to sell tea to the colonists was one such; and this resulted in the Boston Tea Party. However, the intellectual property rights sanctioned by the Constitution were not deemed to be odious because they only pertained to things that did not there-to- fore exist. Also, these rights did not reward the inventor directly, but only held out the potential for reward. The final determination of worth had to be made in the marketplace. For the most part, this system has worked very well and has contributed to the creation of the most advanced and productive society the world has ever known.

Moving on to 1862, another historical event significant to AUTM was the passage of the Morrill Act signed by President Lincoln. This was an act donating public lands to the several states and territories which may provide colleges for the benefit of Agriculture and the Mechanic Arts. It is difficult to imagine that any state would pass up a deal like this. More than 70 "land grant" colleges were created and some still carry the "A & M" designation. It was very significant that our leaders in government saw the need and value in expanding higher education.

As an aside to this event, in a few of the years prior to the passage of the Bayh-Dole bill, I worked as a Patent Consultant to several state Universities. I tried to encourage the research people to consider patenting the results of their work, but did not receive universal acceptance. The arguments against were: "We are only doing 'pure' research" - "We are not in the business of doing applied work", etc. I tried to point out that the preamble to the Morrill Act, which created their institution, did sanction such activity. Another argument frequently given was that the results of the University's research should be freely available to all! This argument was not very convincing to the students who had to pay tuition for some of the same information.

The most important lesson of the Morrill Act is that when the Federal Government initiates a program that extends an opportunity to the people, the people respond, and the country reaps an incredible reward.

In the years prior to WWII and for several years thereafter, the licensing of intellectual property did not amount to much. There were a few exceptions, like the catalytic cracking of oil, the Dow etch process, and a few others; but for the most part, the royalties generated were insignificant by today's standards. Even the licensing of the transistor patents became an embarrassment to Bell Labs when the royalties reached $8,000,000.00 per year. In fact, licensing as a professional specialty did not amount to much until the formation of the Licensing Executives Society in 1965. The two principal characters in this formation were Dan Stice and Dudley Smith, who served as the first two presidents of LES. LES has always been a welcome venue and valuable resource to its University members.

In this same time span, patents were generally not very highly regarded. Many companies reckoned that if they infringed another's patents, there was always a chance that they would not get caught. Or, if they did get caught, the damages would not be more than a slap on the wrist. When Howard Markey was appointed to the Court of Customs and Patent Appeals (now the Court of Appeals for the Federal Circuit), all that changed. Howard believed that patents should be respected and enforced, and infringement became a very perilous activity. It could be argued that Howard was the single greatest proponent of the patent system since Thomas Jefferson.

In the years prior to Bayh-Dole, more than one hundred Universities had contracts with Research Corporation or with University Patents Inc., and the Universities were content to let these organizations deal with the complexities of patents. It is fun to receive royalties for licensing one's inventions. It is not so much fun to have to sue someone to collect them.

Some mention should be made of how a few Universities have dealt with inventions prior to this bill, and I offer two examples:

Prior to World War II, the disease tuberculosis was fairly common and the preferred method of treatment was to confine the victims to a sanatorium. Every major city and several other localities had one or more TB sanatoria. Shortly after WW II, Prof. Waksman of Rutgers University discovered the drug streptomycin. This drug was so effective in treating TB that the sanatoria closed their doors.

Another success story worthy of mention was the University of Wisconsin. In the middle twenties, Prof. Harry Steenbock discovered that Vitamin D could be added to milk and other dairy products by a process utilizing ultra-violet light. Since Wisconsin was the premier dairy state, it was apparent that this discovery had the potential for real economic return. Dr. Steenbock offered the invention to his University, but the University declined because it did not want to be in the position of possibly having to sue infringers. Dr. Steenbock then had the good fortune to contact a patent attorney in Chicago by the name of George Haight. George was an alumnus of UW and he too recognized the potential value of the invention. He, together with Dr. Steenbock and eight other UW Alumni, tried to formulate a program that would benefit the inventor and the University without overloading it with a lot of bureaucratic control. In particular, they wanted to keep it out of the hands of the University administration, and of the Wisconsin state legislature. Their solution was to create the Wisconsin Alumni Research Foundation (WARF) which held title to the invention and administered the licensing activities. For several of its early years, WARF operated out of an office next to George's on Wacker Drive in Chicago.

The Wisconsin story is of further interest because a significant portion of their royalty income was generated during the Great Depression. Part of these funds were invested at the time in stodgy old stocks like ATT, GE, RCA, and Zenith, which were then selling for a few cents per share, It is interesting to speculate if the budgeting process of any University would permit this today.

We all owe a debt of gratitude to Wisconsin for the lesson that inventions have the potential for real financial return, if one does things right, and if a little creativity is applied.

The Supreme Court has also had an indirect hand in the formation of SUPA. The U. S. v. Dubilier case, decided in 1933, dealt with the ownership of patent rights, in addition to other things. In essence, the Court held that, in the absence of a written agreement, there was no obligation of an employee to assign the title to his invention to his employer - the employer retained only a shop right. You can bet that every major employer in the country corrected that situation in a hurry. Some employers have even gone so far as to claim employee inventions not made in, or even related to, the course of their employment. In today's world, the outcome may depend on the employee's bargaining power. However, if anyone now goes to work for a large employer in a technical capacity, it is unlikely that he will receive his first paycheck until this matter is resolved.

The significance of the Dubilier case to the Universities became apparent in the post-Sputnik era when the Federal Government started to fund a large part of the Universities' research. The attitude of the Government sponsors generally was: "If the company employers require the assignment of employee inventions and, if Uncle Sam is now paying the bills, why should not the inventions be assigned to Uncle Sam?" It is difficult to argue with this logic.

The picture becomes clouded when one realizes that the US Government issues the patents on the inventions in the first place. To turn around and then take title to the selfsame patents is a little like a bank writing checks to itself on its own account. It may be legally possible to do so, but no one should be deluded into thinking that anything valuable is created thereby. An invention only takes on value when someone does something with it.

Not all Government agencies required the assignment of inventions. At one time the NIH sent out a letter to all of its University and other Institutional customers asking what was their policy on dealing with patents. Of the 18 or 19 Universities that responded, all were given an Institutional Patent Agreement which allowed them to retain title to their own patents. The NIH, in return, received a non-exclusive license for its own use, or shop right. It often pays to read and respond to one's mail.

The Dept. of Defense also had a less than rigid patent policy. This was demanded by its company contractors who were reluctant to give up their patent rights, especially if it included background patent rights.

Other than these examples, the Government Agencies adopted a fairly rigid stand and demanded the assignment of any invention made in the course of research that they sponsored. In a few specific cases, an Agency would release title to a University, but more often the Agency's policy hinged on the intransigence of the person running their program.

Sometimes the Agencies' policies backfired. The Office of Education at one time required that any work developed with its funds had to be freely available for publication by anyone wishing to do so. The net result was that no one would touch these works. It costs a lot of money to set up a book for printing. Most of these works had a limited market, and no publisher was willing to take the gamble that six other publishers were not doing the same thing. This put the OE to the test: Did they wish to adhere to the socialist notion of strict equality? Or, did they want the works published? If not published, the money spent on their development was wasted and they were of no use to anyone. Fortunately, the OF changed its policy.

This then was the environment within the Government with which the Universities had to contend. There were two University organizations that dealt with patents on a regular basis. One was the Committee on Government Relations (COGR), made up of University Business Officers who tried to use their collective talents to comply with the complexities of Government contracts. The other group was the National Council of University Research Administrators (NCURA) whose members dealt more with the technical content of the research contracts. To both groups, patents were probably a nuisance. This was a direct consequence of the Government's policy of claiming title to any invention made under their contracts. This policy also had a chilling effect on the desire of many researchers to even report the results of their work as possible inventions. Why go to the work of writing up a disclosure on something that is going to be confiscated anyway?

At the 1973 annual meeting of NCURA, held at the Mayflower Hotel in Washington, DC, part of one afternoon of the total program was devoted to patents. Most of this involved the compliance with Government requirements. Not an exciting undertaking. The truly significant part of this meeting was the principal luncheon speaker, Dr. Betsy A. Johnson. At that time, Dr. Johnson held the post of Deputy Secretary of Commerce, and part of her duties included the oversight of the Patent and Trademark Office. The theme of her speech was astounding. She said that the Government's treatment of the Universities' inventions was disgraceful, and why did we not get together and do something about it.

That was invitation enough. Following the luncheon, in a conversation that included Dr. Ralph Davis of Purdue, Dr. Allen Moore of Case Western, and yours truly, Dr. Moore proposed that we follow up on Dr. Johnson's suggestion. Early in 1974, Dr. Moore took the initiative and organized a meeting at Case Western in Cleveland. The meeting was held at a museum nearby to Case Western. A breakout meeting in the museum's cafeteria was organized by Dr. George Pickar of Miami. He proposed that we form a society of University people devoted solely to the management of patents He also proposed that we each chip in $200.00 to get the society started. This seemed a little rich to a few of the attendees, so we settled on the figure of $100.00. Only seven of us signed up initially. To the best of this author's recollection, the original plank holders included George Pickar of Miami; Ralph Davis of Purdue; Larry Gilbert of MIT Henry Bredeck of Michigan State; Earl Friese of Northwestern, Tom Martin of Utah; and yours truly then of Missouri. There would have been more, but some first had to get the OK from their respective institutions on the propriety of joining such an organization. No University wanted to endanger its Government research contracts, and several were unsure how this would fly.

Thus was formed the Society of University Patent Administrators. Within two years there were more than 50 members. For several of the early years, the SUPA annual meetings were held in conjunction with Dr. Dvorkovitz and his annual Tech Ex meetings. His meetings provided a forum for interacting with company representatives that might be interested in licensing the Universities' technology. Dr. Dvorkovitz was a true friend and supporter of our organization when support was hard to find. A synergistic interest did not hurt either.

In 1975, ERDA (the precursor to the DOE) held some hearings on the Government's patent policies. By this time the Government had taken title to more than 27,000 patents and the Government's own statistics were quite revealing. Less than 4% were licensed to anyone. In a few cases, a Professor who had developed and patented a piece of apparatus for use in his own laboratory was required to take a license. This counted in the 4%. Also, many of the licenses were royalty free. The best that could be said for the Government's patent program was that it was not working.

ERDA got its own lesson in patents a few years earlier. Following the first oil crisis, Congress wanted to encourage the development of energy saving inventions to cope with the sudden jump in oil prices instituted by OPEC; and, Congress wanted ERDA to run this program. To ERDA this had all the appeal of a tar baby. However, this program under the auspice of the DOE and the National Bureau of Standards and its

Office of Energy Related Inventions later became one of the most successful ever initiated by any Government agency. (Importantly, the Government did not claim title to these inventions.) At one time the DOE estimated that the Government received $16.00 in new taxes for every dollar invested in this program. The results would probably have been better, but for an interim decline in oil prices. With the recent tripling in crude oil prices, some of the inventions processed through the program may well be revived.

The Bayh-Dole bill had its start with the first oil crisis. The story as related by Ralph Davis was that a Professor at Purdue had invented a process for convening corn stover into a burnable liquid fuel (not Gasahol), and a number of companies had expressed an interest in developing the process. The research work had been sponsored by the Department of Agriculture, which held title to the invention, and it was necessary to obtain a release. This dragged on and on until all of the interested companies were long gone. This was Senator Bayh's introduction to the problem.

Apparently, someone in Kansas had a similar experience which brought Senator Dole into the fray. (At some future meetings, it would be very helpful to invite these esteemed gentlemen and have them relate their versions.) This author recalls one invention made at the University of Missouri which brought the problem into focus. The invention was reported by two professors and no Federal funding was involved. However, one graduate student who worked in the same laboratory had a NSF fellowship. On the strength of this involvement, the NSF demanded title to the invention. The number of incidents like these began to multiply, and by the time the Bayh-Dole bill was introduced, it had 21 cosponsors.

It became clear that there was a real interest in developing and bringing to market some of the Universities' scientific achievements. The Universities, for the most part, were not in a position to do this directly - nor were they chartered to do so. The companies interested in doing so were reluctant to spend their money in the absence of holding a proprietary position. That is the way the game is played. The real loser was the American taxpayer, who paid for this research in the first place, and was denied any benefit because of Governmental interference.

The goals of SUPA were clear to the members. The variegated and inconsistent Government policies had to be changed! For a group who were trained and hired to deal with technical matters, this dabbling into politics was a real departure. Howard Bremer of WARF did a very effective job of keeping the members informed of activity, or lack thereof, on Capitol Hill. Once dedicated to the task, it was amazing how effective these people could be. Tom Martin of Utah once said: "Tell us what you want - between Cindy Hanson (Colorado State) arid I, we can deliver seven states." And they did.

The winds of change did not go unnoticed by the Government Agencies that did not want their power undercut. At one time I received a call from Will Fornell of Minnesota who said that one of the Agencies was trying to be excepted from the proposed bill. Will said we had to nip this in the bud. He asked each of us to call our respective University contacts and bring to bear whatever pressure we could. I did as

requested and the next call I received from Will, he advised that Senator Symington of Missouri had been successful in scuttling the proposed exception.

There were a few individuals within the Government who saw merit in what the Universities were trying to do. Norm Latker of DHEW actually became a friend and supporter of the Universities' cause. This did not set well with then Secretary Califano, and Norm lost his job. Joe Allen initially served on Senator Bayh's staff and he too understood well what needed to be done. Joe and Norm have continued to be long time supporters. If any member of AUTM meets either of these gentlemen in the future, you would do well to express some appreciation.

The Bayh-Dole bill was passed in 1980 arid signed by President Carter in 1981. This was almost seven years after the formation of SUPA.

It is still a little early to measure the ultimate impact of this bill. That it is having an impact cannot be denied. One representative of the Max Planck Institute in Germany once said that his Institute used to lead the world in pharmaceutical research. With the passage of the Bayh-Dole bill, they lost it. It is also worth noting that in the passage of this legislation, no political contributions were made, no funding was required, and no one within the Government, the Universities, or the general public received a dime.

There may also have been a matter of fortunate timing. About the time the bill was passed, there was the beginning of a groundswell in the formation of new enterprises which is unabated today. At a technology exchange meeting in Dallas in 1985, David Birch of MIT revealed that in the month of September 1983, more new jobs were created by new enterprises in the United States than were created by all of the Fortune 500 companies in the prior year, or by all of the European Economic Community in the prior ten years. To many Universities, the idea of a start-up company was still beyond their charters, if not downright repugnant. In time this attitude has mellowed and probably every State in the Union has jumped on the bandwagon. If you are going to educate young people for the new economy, why not find out what it is all about? And have some fun in the process. While the success rate for new enterprises generally is still low, the success rate for University start-ups is considerably higher, and the few that succeed more than make up for all the losers. The chances for success are immeasurably increased if the participants have a vested interest in such enterprise. That is the American way, and that brings us to where we are today.

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As presented to Patricia Harsche
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