

## JOURNAL PUBLISHING PROCEEDINGS OF THE ASSEMBLY

The *Journal* will publish a majority of the papers delivered at the Orthotics and Prosthetics Assembly, Palm Springs, California, October 16 - 20, 1966.

This issue of the *Journal* contains two of these papers:

*"The Pursuit of Excellence,"* by Robert G. Thompson, M.D., the address given at the Certification Luncheon session of the American Board for Certification in Orthotics and Prosthetics, October 17, 1966.

*"Canadian Experience with the Soviet Myoelectric Upper-Extremity Prosthesis,"* by Gustave Gingras, M.D., F.R.C.P. (C), delivered at the Assembly, October 19, 1966.

In a forthcoming issue the *Journal* will publish these papers:

*"Summary of Research Developments in Upper Extremity Orthotics at Baylor University College of Medicine,"* by Thorkild J. Engen, C.O.

*"Myoelectric Controls Systems,"* by Worden Waring, Ph.D. and Daniel Antonelli, E.E., Human Systems Design Center, Rancho Los Amigos Hospital, Downey, California.

### The Pursuit of Excellence \*

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The origin of the phrase, "The Pursuit of Excellence," is probably buried in antiquity but it is believed to have been first spoken by the Greek philosopher, Aristotle. These words, however, have been used to stimulate individuals down through the ages and they are as apropos today as they were twenty-five hundred years ago. It has been said recently that we are living in the age of the "great goof-off;" the half-done job. People in the main are going through the motions of producing, but not in the interest of doing their very best or in performing their job for the self-satisfaction they may obtain by producing a superior product or a superior service. It would appear as though the majority of workers today are more interested in how much money they can coerce out of their employer for the least effort on their own part.

\* This paper was presented at the annual Certification luncheon of the American Board for Certification in Orthotics and Prosthetics, Inc. October 17, 1966, at Palm Springs, California.

The country of which you and I are citizens is probably the greatest and strongest nation of the earth. America was founded and made great by people who believed in doing the very best that their frequently limited resources of skill and education would allow. Today we are, if one can correctly interpret the signs around us, worshipping the cult of mediocrity. Do not rise above your fellows or you may become unpopular; individuals excelling in intellectual attainments are given the derisive term of "egg head." However, I would advise you that nations, towns, families and individuals are not made superior by mediocre performances, but are only made strong and great by the constant striving to achieve superior performance. The glory that was Rome at the time of Christ soon faded to the decadence and weakness and the failure that was Rome in the Third Century. When Roman leadership and citizenry alike became more interested in circuses and the pursuit of pleasure than in the pursuit of excellence, the empire was on the downward path. You who are here today are in a unique position to pursue excellence in your chosen profession.

Beyond that period of approximately twenty to twenty-five years ago, the "limb industry" (as it was then known) was noted "to have an unsavory reputation enjoyed by some members of the industry, and a mutual feeling of suspicion and distrust among the industry members as well as among the agencies with whom these members were associated. In many instances, members of the limb industry were looked upon as ambulance chasers and frequently thought of as vultures awaiting every opportunity to pounce upon a dainty morsel."<sup>1</sup> A number of your colleagues, however, were not content to allow such a status to be preserved and they, through the cooperation and interest of certain orthopaedic surgeons, were instrumental in setting up the American Board for Certification in Orthotics and Prosthetics, on September 9, 1948.<sup>2</sup>

The founders of your Board realized that if the limb industry was to be improved, all its members would have to have, at the very least, a common springboard from which to lift themselves to new heights in their chosen vocation. The members of the American Board also realized that initially certain realistic minimal requirements would need to be spelled out so that all who aspire to Certification would know how to prepare themselves adequately. The candidate is required to have certain minimal general educational requirements: that is, a high school education. He is also required to have specialized training in the art of prosthetics and orthotics, which up to this time has been available only through apprenticeship training programs. He is, over a four-year period, to measure, make and fit sufficient numbers of each type of prosthesis and orthosis to sufficiently perfect himself in this art so that he can perform these services for the disabled individual without supervision by other prosthetists or orthotists. Certain auxiliary information is also to be acquired such as a knowledge of anatomy, physiology, pathology, bio-mechanics, and last but not least, psychology, so that he has some insight into the amputee's total problems and is not merely a mechanic who is fabricating an artificial addition to an amputation stump.

Since each of us may have a different concept of what is adequate preparation, (even though the regulations specifically state what is required) each individual candidate is then tested by examiners who are generally acknowledged to have high standards and superior knowledge of the field. Recently, while reviewing qualifications of candidates who were applying for these examinations, it seemed to me that the four years of apprenticeship was a most critical part of the preparation for certification.

The application forms detailing this experience, in my opinion, leave a great deal to be desired. Most of the figures supplied by the candidates, which indicate how many of each prosthesis or orthosis have been fitted, seemed to be guesses and in many cases poor guesses at that.

I would propose that the American Board for Certification supply all prospective candidates with a booklet that would be maintained by the candidate during his four years of apprenticeship, with sufficient space to record on a daily or weekly basis each prosthesis or orthosis which he has fitted, fabricated and checked out. These entries would then be certified on the same daily or weekly basis by his sponsor or certifying orthotist or prosthetist. Such a pamphlet, which was called "Record of Professional Assignments," was used by medical officers during World War II, to record and certify their on-going training experiences while working in service under the supervision of board-certified individuals. Such records were then made a part of the candidate's application to the individual medical specialty board and thus provided the board with a much better picture of the applicant's service experience. I believe it would also give the candidate a better idea as to precisely how many prostheses or orthoses he has made and in what areas he is weak, so that during his four years he could then fabricate the required number of each type of prosthesis or orthosis. I know that this type of record would make the task of the Credentials Committee a great deal easier when evaluating these applications.

Although at this time the minimal educational requirement is that of a high school diploma, (which indicates that the candidate has spent four years in an accredited high school) it is further hoped that, in order to improve the education of the individual orthotist and prosthetist, a program such as the Associate in Arts degree, with its emphasis on prosthetics and orthotics, be made a real source which can be expanded to provide many well-trained, knowledgeable prosthetists and orthotists.

From time immemorial, three vocations, law, theology and medicine, have been considered to be professions: law, which deals with man's relationship to other men; theology, which deals with man's relationship to his god; and medicine, with man's knowledge of the intimate workings of his own body. Your forebears in prosthetics and orthotics long held the opinion that since your vocation is intimately allied to medicine, this field should be considered a paramedical specialty and that the practice, the art and the science of prosthetics and orthotics should have a professional status.

At this point, let us examine the professional individual and see where he differs from the non-professional one. First and foremost, the man in a profession is considered an educated individual. Your American Board for Certification has attempted to fulfill this first requirement by demanding that each applicant complete a standard four-year high school program. However, as I have indicated before, in the not too distant future this requirement may well be upgraded to at least two years of college with an Associate in Arts degree, or even a four-year Bachelor of Science college program. Those of us in the profession of medicine recognize that education cannot and does not stop with the issuance of an M.D. diploma. In most cases, the issuance of the diploma represents only the commencement of a lifelong process of education. Self-improvement by regular reading, participation in short formal university courses, regular attendance at your annual and regional prosthetic-orthotic meetings and regular attendance at amputee and orthotic clinics, are all a part of the educational process and I consider education to be a most important part of the pursuit of excellence.

Another equally important attribute of a member of a profession is his willingness—nay, his desire—to teach his art and science to others. The medical profession has long been outstanding in this area since the promulgation of the Hippocratic Oath, which states in part, "To consider dear to me . . . him who taught me this art; . . . to look upon his children as my own brothers, to teach them this art if they so desire without fee or written promise; to impart to my sons and the sons of the master who taught me and the disciples who have enrolled themselves and have agreed to the rules of the profession . . ." Many practitioners of medicine have for years given freely of their time in formal and informal teaching of medical students, interns, residents and other graduate physicians. It would seem as though we are most eager to pass on our secrets and techniques of examination and treatment to our students. Contrast this to what existed in the limb industry a few years ago. Trade secrets were jealously guarded and passed from father to son, patients were sought and obtained, restricting the use of new ideas and products, individuals were forced to their sometimes limited resources in solving difficult problems without recourse to friendly "curbstone consultations" as these are called in the medical profession. The profession of prosthetics and orthotics is now beginning to pursue excellence in this area by willingly sharing knowledge, by giving and taking freely of consultations without thought of recompense one to another. In my experience as a participant in amputee clinics during the past fourteen years, I have been impressed that recently there has been an increasing free exchange of knowledge and information between each of the attending prosthetists and orthotists. I note this as very definite evidence of the increasing professional status of the practitioner of prosthetics and orthotics.

The certified prosthetist and orthotist is likewise in a unique position, in regard to his ability, to upgrade himself both in knowledge and in monetary compensation because of his approachment to professional status. As far as I am aware there are no "unions" of prosthetists and orthotists and I would certainly decry this ever coming to pass. It has been my experience that in industries where trade unions have become dominant, the unions are in many cases very restrictive of an individual's ability to advance himself. It is probably true that trade unionist activity has increased the take-home pay of individuals employed in industries covered by these unions, but at the price of an individual's ability to improve his own status. Individuals employed in union shops are often warned (by the union stewards) that they cannot exceed the norm or the average output of the worker in that particular industry. If they do attempt to increase their individual productivity, very often they are subject to restrictive fines by the unions. It would seem to me very difficult for any individual to be able to exhibit merit in such a situation sufficient to allow him to rise to the level to which his ability and education would otherwise promote him. The certified prosthetist or orthotist is able to further his own fortune, both monetarily and in knowledge, depending primarily on his own initiative and ability in the profession which he has chosen. This marks you, in my opinion, as a group which is pursuing excellence.

To further the profile of the professional individual, one finds by and large that the person in the profession has a very clearly defined sense of ethics. A great deal of time could be spent on discussing this subject but essentially ethics are used to give one the ability to judge the rightness and wrongness of any situation. As all of you know, many situations cannot be decided as either being definitely black or white; there are most often

many shades of gray between these extremes. Generally, however, the true professional will come to decisions which are more often right than wrong, depending on, in many situations, his purely innate sense of the ethical approach.

The rightness or wrongness of any situation in orthotics and prosthetics, if there are any doubts in your mind, certainly may be quite clearly resolved by consulting your own Code of Ethics.<sup>3</sup> There are certain things that one does and there are certain things that one does not do. If there is any further question in your mind about the shades of gray that I speak of, one can always fall back on the golden rule to decide the rightness of any decision. This is not to imply that all practitioners of medicine and surgery practice or use ethical principles to the same high degree. We know we have black sheep in our profession as we know also that there are a few black sheep in your profession. However, we can certainly strive for excellence in this area by putting aside what might be a temporary monetary gain by such things as excessive advertising, ambulance chasing, overselling of certain components or prosthetic devices, and publicly decrying the ability of our colleagues.

I think, as a final note, that a further mark of the professional individual is that of self-confidence. As doctors of medicine and surgery, those who pursue excellence gradually develop the self-confidence that comes with the known ability to solve the problems associated with any given situation, and the thorough knowledge that in oneself is the ability to master any situation that may arise. The self-confidence that the practitioner of prosthetics and orthotics reveals in clinic discussions gradually promotes a closer relationship with the other clinic members and increases the amount of respect that is accorded each prosthetist or orthotist. These amputee and orthotic clinic groups are truly becoming team operations, with the knowledge and ability of the prosthetist and orthotist being recognized as important to the patient's welfare as the contributions of the physician, surgeon and therapist.

In my opinion, both the apprentice and the certified prosthetist or orthotist are in a unique position to pursue excellence. They should strive to serve the disabled of mankind in a manner befitting a true profession. In your striving, however, you should not forget the mark of the true professional—an educated individual pursuing excellence by a continuous learning process, pursuing excellence in his ethical relationship with others in his profession, and pursuing excellence by teaching his art freely and without primary thought to temporary monetary gain.

## REFERENCES

1. Harmon, Frank, "II. Rehabilitation Agencies and Certification," *Orthopedic and Prosthetic Appliance Journal*; 11:28; December, 1957.
2. "The History of Prosthetic and Orthotic Education," *The Mark of Merit*; 3; No. 1; 1963-1964.
3. "Code of Ethics for the Artificial Limb and Brace Profession," *Orthopedic and Prosthetic Appliance Journal*; 18:48; March, 1964.