knowledge will be broadened by contact with a multitude of variations on many chemical themes. Second, because the work he translates usually represents a report of research at the frontier of knowledge at the time it was written, his knowledge will be deepened as he continually seeks to understand what he is translating by returning to fundamentals of his early chemical training, by seeking relationships and associations between the familiar and the unfamiliar, and by adding to his knowledge the new facts he learns. Third, because he must communicate effectively with his readers, he will be interested in and keep up to date with the language of chemistry as it develops in all the specialities with which he comes in contact.

Whereas the laboratory chemist, who spends his time mainly seeking and doing, must make a special effort to keep in touch with the chemical world in general, the translator is surrounded by the written world of chemistry as he works. If he takes advantage of this opportunity to grow as a chemist, he becomes better able to exercise critical judgment in his translating. Selection and rejection is most difficult for the translator in translating for the permanent record or in a broad spectrum of disciplines. Tailoring a translation to widely different specialists' needs or to the future needs of even a single specialty is a problem that is often sidestepped by a complete translation, unselective except for obvious irrelevancies, such as polemics or political eulogies. In his closer contact with research people, however, the translator may know his reader's interests and the subject matter well enough to dispense with the translation of a worthless or irrelevant article. Between these extremes the translator finds many opportunities to save time and effort with critical use of his chemical knowledge.

With this critical use of his chemical knowledge, the translator functions as a chemist first and as a linguist second. His goal is the discovery and communication of chemical information rather than the duplication of chemical literature in another language. Thus, too, he escapes the physical limits on his output as a translator by distilling the foreign-language literature to isolate its essential information.

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# The Patent Information Chemist*

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*A patent is to make money.* In other words, a patent is a form of property and represents money already spent in hope of money to be made. The money is not always in current dollars—frequently it is in research ideas, lead time over the competition, increased prestige and morale of the inventor. Patents are similar to any other phase of industrial research where economic advance pays the salary of all technical people.

Work with patents is a rewarding and creative experience no matter what phase of patent work the individual follows. To my mind a *PATENT INFORMATION CHEMIST* can be one of the most creative persons of all and he needs the combined talents of a competent researcher and a well-rounded businessman.

Now, let us first define our preferred species of Patent Information Chemist. His primary purpose is to be a bridge to promote the free flow of patent information and strategy to the different operational areas of technical, legal, manufacturing, and marketing. Specifically, he is a technical person who is business-oriented toward making money from patent information activities.

He is usually part of an organization which provides a service. To furnish adequate service and to handle any specific assignment he must be conversant with research, manufacturing, marketing and legal policies to insure that he can interpret his results accurately to arrive at meaningful conclusions. He is thus able to assist in the development of the short- and long-range patent strategy that will provide the greatest profit potential for his organization. In simplest terms, the Patent Information Chemist helps you get the most mileage from the information available in the patent literature. He gives business-oriented patent information on specific problems to the people who have to live with the results. The information and conclusions must be tempered with good sound economic principles, leavened with company policies, and geared to the needs of the people requesting the information.

To help you decide on the education and training of a future "Patenteer" let us look at the skills required to do a competent job in the chemical industry.

1. Education—organic or physical chemist, chemical engineer
2. Know-how of
   a. Technology—of his employment
   b. Economics—of business problems and research and manufacturing developments
   c. Humanics—of winning friends and influencing people
   d. Patents—law, terminology—a working knowledge
   e. Company policies—and philosophies
3. Diplomatic Communicator—oral and written and to this imposing list we must add
4. Initiative and imagination, without these two ingredients our "Patenteer" is just a craftsman, with them he can be an artist

In short, then, our preferred Patent Information Chemist is chemically trained and industrially seasoned.

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Almost every sizable organization has one or more people operating in the Patent Information field. The service these people render has come to be recognized as an essential element of modern-day business. Unfortunately, the need is so poorly publicized that it is little-known outside of the select circle. The more that we can do to disseminate information on the accomplishments and contributions of this type of service, the more likely we are to attract better qualified people. Industry needs the help of you "Educators" to spread the word that Patent Information opportunities exist throughout the industry, so that more people can set such a vocation as their personal goal.

Now, the basic tools for the Patent Information Chemist are several, including access to a complete patent library of domestic and foreign patents in the technologies of interest. He must have current knowledge of all patents of interest, and especially those issuing in the so-called "quick-out" countries, such as Belgium. He must develop knowledgeable consultants throughout his own or related organizations who know what is going on in the trade. He must have other consultants who can be relied on for past history within and without the organization. He must cultivate an open mind so he can develop auxiliary information sources when the conventional means fail. And, of course, he always needs an open mind to interpret his results, that can frequently by so misleading. He must constantly work to keep abreast of research developments within his organization to keep his technical thinking updated. In other words, he must constantly work to maintain a business-oriented approach to patent information problems.

His efforts are governed in part by the people requesting his service, but even more importantly, his efforts are geared to economics. Neither he nor his employer can afford $1000 worth of effort on a $100 problem, and certainly the reverse can be even more expensive. Once he has geared his effort on a specific problem to the economic stake, he takes a positive and constructive approach to the problem at hand. He must develop his patent information through all reasonable means at his disposal.

What is a typical challenge of a Patent Information Chemist? Let us examine a real-life problem where, as a disc-jockey would say, only the needle has been changed to protect the record. The following illustration came from one of the companies represented at the Chicago Symposium on Patents last September:

A Company had developed a new product. After considerable imaginative effort, they had obtained a dominating patent position. The Company turned out the product and also licensed the development broadly. One of the Licensees developed a product superior to anything the patent owner could make. The Company approached the Licensee and, after considerable negotiation, the Licensee agreed to sell the Company know-how at a price obviously designed to recoup much of their royalty. The problem as defined for our hero by Management—Will the know-how serve to put the Company into a competitive position? Will the know-how be worth the cost?

A Patent Information Chemist developed the facts from these major sources:

(1) U. S. and foreign patents assigned to the Licensee.

(2) Technical Service people familiar with the product and the needs of the industry.

(3) Technical and Manufacturing people of the Company who would operate the process.

Quite a few working hours later, the probable facts:

*Licensee*

(1) The licensee was using a slow-speed discontinuous operation.

(2) The equipment used by the Licensee was probably in excess and obsolete.

*Company*

(1) The Company had no excess equipment of the type probably used by the Licensee.

(2) Labor requirement of Licensee's equipment was probably high by the Company's standards.

(3) If the Company had to buy equipment of the type used by the Licensee they would price themselves out of the market.

With these facts, the conclusions are easy:

(1) Do *not* buy know-how from a Licensee.

(2) Use the would-be purchase money to develop processes specifically for the Company's equipment.

There are many other cases, but this is typical of the services rendered by a Patent Information Chemist. He is a business-oriented, technical man dedicated to the philosophy of helping his employer get the maximum value from patent information activities. To do this, he keeps three primary principles in mind:

(1) Business economics,

(2) a dynamic and constructive approach, and

(3) the interest of those who request his services.