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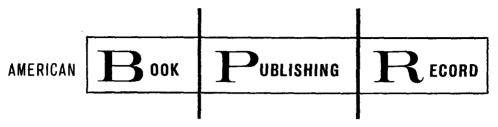
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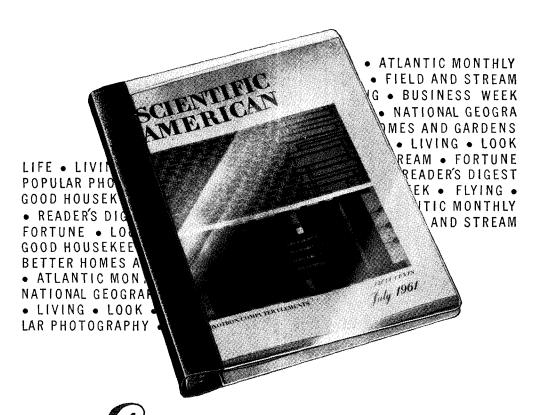
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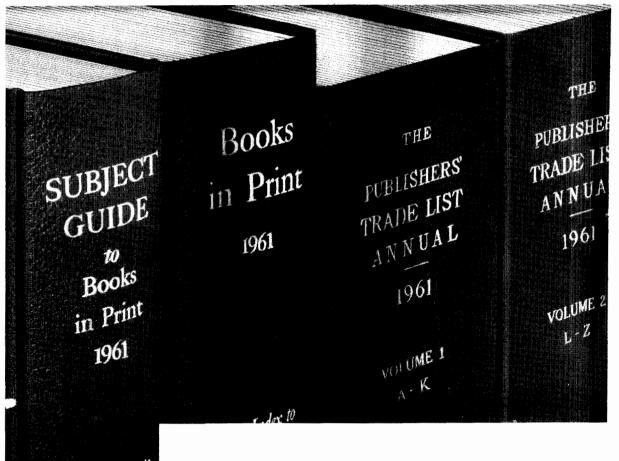
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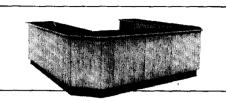
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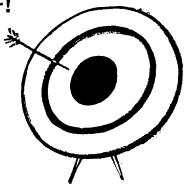


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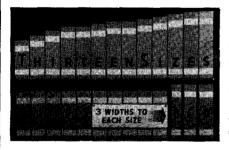
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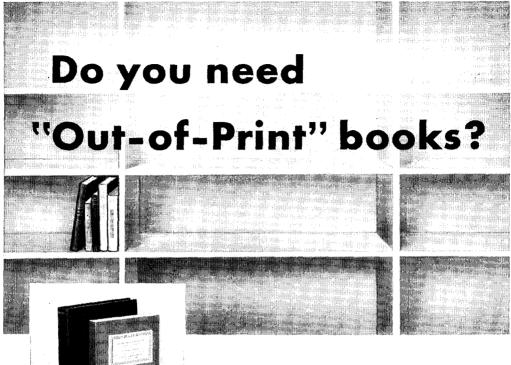
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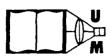
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Communications in a Complex World

E. FINLEY CARTER, President
Stanford Research Institute, Menlo Park, California



QUESTIONS OF burning importance face us. As members of the communications fraternity, we must ask ourselves whether we are fulfilling our professional responsibilities. We must

ask whether we understand our changing environment, both in terms of the changes we are helping to bring about and of the effects that change will have upon us.

Presented here is a discussion of four subjects: 1) the role of communications as the central nervous system of society; 2) the impact which I believe science and technology will have on your profession; 3) some nontechnical problems which I believe to be facing the library community; and 4) a potential role for libraries in general, and special libraries in particular, which will challenge your utmost effort to participation in the broadest problems of our time.

In the days of colonial Virginia, a governor of that colony uttered these words: "I thank God that we have no free schools nor printing. Learning has brought disobedience and heresy and sects into the world; and printing has divulged them and libels against the government. God keep us from both."

Today we laugh at this foolish utterance, but we can also learn from it. Remember that this governor, speaking scarcely three centuries ago, was reflecting a point of view, not uncommon in his time, that communications and the spread of information have a disruptive effect on society. Today it is hard to conceive of anybody's being opposed to education and the printed word. They are the foundations of our civilization; the progress of mankind is inextricably linked to our ability or inability to speak effectively to one another.

Banquet address given before the 52nd Annual Convention of Special Libraries Association, San Francisco, May 31, 1961.

The invention of movable type signaled the dawn of modern society. Radio and television have, of course, added new dimensions to communications and further accelerated progress. In recent years we have grown introspective about the causes of economic and social development, and a number of respected social scientists have suggested that there is a direct correlation between the economic and social stage of a country and the effectiveness of its system of communications. This has been extended to the theory that the fastest path towards development of newly developing countries may lie in assisting their communications complexes; that more aid from the United States and international agencies to the field of education, to radio and television stations and to publishing and library facilities might in the long run be more productive than the present emphasis on stimulating industrial growth.

If I were forced to choose two words to describe our world today, I would choose "change" and "specialization." These phenomena, of course, are well known to you. They have had an overwhelming influence on your own profession. During and after World War II, the industrially advanced nations have been subjected to succeeding shock waves of the technological explosion; everything we know—our material surroundings, our values, ideals, our relations with other nations—have and are being altered.

As I have said, proliferation of knowledge has forced specialization. What used to be simply chemistry or physics is now subdivided into literally scores, even hundreds, of separate specialities, each with its own burgeoning literature. The reports of scientific endeavor in books, journals and papers have become so numerous as to cause serious concern in the scientific community, posing as they do the dilemma—that scientists cannot afford to ignore them nor can they afford the time to read them all.

It was not surprising to me to learn that the number of special libraries in the United States has more than doubled since 1940. This has imposed serious strains and stresses. But I suggest that this is only the beginning; you would be well advised to brace yourselves for an expansion greater than anything you have experienced to date. Exponential growth in the field of technical information is with us; it is desirable and inevitable. The challenges presented to the community of special libraries by this development are clear. They are challenges to a level of thought, planning, effort and foresight has not to date been demanded. As the nerve centers of technological society, you must not only do efficiently the day-today jobs of running libraries, but you must think ahead to how you can fill your role tomorrow, next year, a decade or two hence, under vastly different and more complex conditions.

In so doing, there will be pressures to retreat into even greater specialization, thereby bringing your problems down to manageable size. This may in some cases be the proper and appropriate solution, but it can only be effective if there is a determination in your profession to couple specialization with understanding of the broad forces at work in the world. Men with specialized understanding are commonplace, but specialists who can maintain an overview—who can understand the relationship of their fields to others—who can grasp combinations of facts and bring them together in such a way that new ideas are created these men are a rarity. In special libraries we must seek to instill this breadth of understanding wherever we can.

Let us not forget that while advancing technology is creating new problems for you, it is also trying to solve them. You are, of course, aware of the research that is being done in the field of information storage and retrieval, and the promise it holds for new developments that will one day lead to the practicability of electro-mechanical systems for abstracting, translating, storing and printing out information. Such advanced devices, even though not yet generally available, are bound to be widely used as they become less

expensive and more refined. Even further off, but of equal import to the information community, is research underway leading to the eventual development of devices and systems which can augment the human intellect by new concepts in man-machine coupling.

Technology in prospect will help in your job. It can contribute to improving what we engineers call the "signal to noise ratio," in this case meaning the elimination of information which is of no use, leaving only the core material which is helpful. It can provide the tools for abstracting and getting information properly classified; it can help by responding quickly to the needs of users and by facilitating the transfer of material from one information center to another.

Although technology will help to do a better job, I believe that we must seek the real solutions to our information problems outside the area of technological developments, for these are no more than useful tools for the ultimate use of man himself.

The ultimate solutions to problems of the library community will be achieved by men and women, people who are prepared to make value judgments about the nature and extent of the material to be collected, people who will raise their voices when they see gaps in the spectrum of human knowledge or when they discover parallel efforts where duplication cannot conceivably produce a useful result.

This imposes a demand for a high degree of professionalism in your various organizations. Not very many years ago, an alarmingly large number of companies gave dignity to the collected books and pamphlets accumulated over the years by conferring the title of "library" upon them and sticking them in some out-of-the-way corner, often under the supervision of an untrained person.

Such systems obviously were doomed from the beginning. Conceived on an inadequate basis, they could never hope to cope with the demands that came to be made on them. If there is one major mission to be performed by the Special Libraries Association, it is the promotion of a standard of professionalism in this field that will be adequate to meet the challenges ahead.

Our experience at Stanford Research Institute, I believe, will serve a purpose in illustrating what I mean by professionalism. In a research organization, the importance of the library can hardly be overemphasized. It is, for us, an indispensable resource.

We have a fine library, headed by Lorraine Pratt, who works with an exceptionally able staff. I have often said that the professionals at the Institute are my bosses when it comes to their particular fields. We rely on our research leaders to indicate the directions for their research. We rely on our security officers when matters of classification are involved; and certainly we rely on Lorraine Pratt to fill the constantly growing need in our organization for efficient and effective information services and to tell us what she needs in order to do her job effectively.

There is one aspect of the library problem that frankly bothers me, and this relates to the way in which the market for potential users has been developed. I maintain that not nearly as many people are now making effective use of libraries as should be. While those people who acquire the library habit find that they cannot get along without them, there are still a great many—some in responsible positions who ought to know better—who do not have the library habit and who have no concept of the immense help that libraries can be to them.

Why does this situation exist?

The answer is that many people have a very inadequate impression of what libraries are and can do. As the public relations people might say, the library has failed to project an accurate image of itself to all of the publics that ought to be aware of what is so readily and freely available to them.

Perhaps here too is another role for organized associations in the library field; a program of selling the new look in libraries to the people who should be using your services more extensively. Those of us who are older need to be forcefully reminded, from time to time, that libraries today have evolved far beyond what they were during our student days. When I myself was a student engineer, for example, there was little material available in libraries or elsewhere that pertained to my special field of

interest, electronics. It may seem hard to believe, but students of electronics in those days really didn't think in terms of visiting the library as much as they did of laboratory experimentation and trial and error approaches. Now, of course, the situation is vastly different, but I confess that my early experiences may have caused me to think less about using the library in later years when, had I had a different orientation, I could have saved myself great amounts of time and energy.

So there is a role here that you can play in selling your customers and potential customers on libraries and how useful they may be. And there is also a role in reaching down into the schools and colleges to make sure that the library habit is inculcated there, on a level where it will be of immediate and future use.

Some high schools and colleges, I believe, have brief orientation courses on the use of libraries. These should be encouraged and extended throughout our education systems. Such courses should encourage students to understand today's libraries and also something of the technological developments and social conditions that will mold libraries into far different types of organizations in a few years.

I have told about some of the environmental changes that pose problems and give libraries special new importance to us. I have touched briefly on the technological developments that will change your operating environment. I have told of the challenge to professionalism and the need for broader education of your clientele on the use and potential of libraries in general. There remains one other area on which I would like to touch briefly.

We live in a world which is today teetering in uneasy balance on the edge of a precipice. The tensions of world relations are realities of our lives day after day, week after week. By maintaining a strong posture of defense, by developing weapons systems which can deter a potential enemy from striking us, our country and our allies are buying some time.

But the time we are buying cannot help us, unless it is put to good and constructive use. Thus, I have maintained that if we are to do anything about easing world tensions—and certainly we cannot live forever in this state of precarious balance—we must seek out those areas where there can be legitimate communities of interest; we must concentrate on developing a network of human relationships in those fields.

The library community as it has developed in the United States is founded on the principle of cooperation. Without the techniques of professional cooperation which you have developed—exchange agreements, interlibrary loan and collaboration between librarians in many other ways—the effectiveness of libraries would be greatly diminished.

Perhaps more than in any other field, library people have well learned the benefits of fruitful cooperation based on mutual trust and confidence. What can be done to increase the impact of this fine spirit on other nations and other cultures?

That libraries can be an important road to international friendships there can be no doubt. It is significant that our own United States Information Agency has invested a large percentage of its resources in providing libraries in many of the countries where it operates as one of the principal techniques for reaching people and making friends.

I leave you, then, with the final challenge: to be alert to the possibilities for service, not only to your own organizations but by extending the spirit of cooperation which exists in the library community, to your country and the community of mankind.

What Management Expects of Its Library Function

ELMER W. EARL, JR., Assistant Manager, Planning and Research Life Office Management Association, New York City



Juliet Newman

Let ME SAY here at the outset that there are two very distinct steps in the determination of how much pay an employee receives. The first step is the determination of how much a job is worth—

not the worth of the employee who fills the job. The worth of a job is determined by a process described in the following three papers. It is based on how much the job demands in the way of skill and educational requirements, responsibilities of the job itself and, let me repeat, does not take into account the specific qualifications of the individual in that job. *He* comes next.

Paper presented on May 31, 1961, before the Insurance Division at the 52nd Annual Convention of Special Libraries Association in San Francisco, California. This and the following three papers comprised a panel entitled "The Special Librarian's Position in the Insurance Company's Salary Structure."

Evaluation of the *individual* is the second step. An employee's salary will be based both on the extent to which he fills the job requirements and also on the quality and quantity of his performance.

In terms used by personnel administration specialists, the first step determines the worth of the job by means of a process called job evaluation. The second step determines an individual's level in the job range through a process called performance appraisal.

The worth of a library job is judged on its relative importance to the company's overall operations—its relative contribution to the over-all success of the company. Such an appraisal, obviously, starts on the management level, which decides, in the first place, if there shall be a company library and if so, the scope of its function. In preparing for these remarks, I visited a number of life insurance company executives and asked, "What do you expect of your library function? Is it an important part of your total operation?" Let me summarize briefly. . . .

Home office executives have widely varying views on the question about the library's importance. On one hand, they say "We couldn't get along without it; it saves us many, many hours of time through its research assistance; it helps to keep us posted on significant developments in the industry through its information service; and it saves us money, too, through more efficient records management." At the other extreme, they say "An unimportant function with us; each department handles its own reference material; a file clerk can do this in her spare time."

The size of company has some bearing on these divided views. However, the fact remains that a few large companies have libraries that are filing operations only, while a few smaller companies expect their librarians to provide a variety of important services.

It was interesting to note the reactions of some executives whose views fell between these extremes. After a rather embarrassing silence, they admitted that their libraries probably were important—but this seemed to be based less on strong conviction than on a reluctance to admit that they would have an operation that wasn't important. I would have expected the same answers from them if I had asked "Are your elevator operators important?" When I asked one executive how he would describe librarians, he replied "That's easy; librarians are 'lady bookies'."

All of us want to feel that our jobs are important, not only for our own self-esteem but for the greater financial rewards that come from having a larger role in contributing to the company's success. On this last point, if I am correct in assuming that librarians are interested in knowing how to "ripen their stipend," what can you do to bring about this ripening process?

I have several suggestions. First, look at the stated objectives of your library function. If you have no written objectives now, prepare a list of important purposes and have management approve them. If you do have written objectives, do they give you sufficient opportunity to provide a number of useful services you would like to provide, or do they restrict your activities to a cataloging and filing operation? Next, keep in mind that salary determination is a two-step process, and the first step is related to the value of the job itself. So, ask yourself, "What important services can my library provide that we are *not now* providing? Which of our present services can I improve and expand?"

The development of an expanded program is primarily a do-it-yourself project. That is, I seriously doubt whether very many suggestions for major improvements in the library's service will come from other people in the company. If you wait for someone else to get the ball rolling, it won't.

Then, ask yourself, "How can I get more people in the company to be familiar with, and to use, the services our library provides?" This will depend on two things: 1) how good is the service and 2) how well have you promoted it?

There is some basis to the "better mouse trap" theory, but a good product alone isn't enough to attract the optimum number of customers. Products and services have to be sold.

The importance of a home office library will have a direct bearing on the kind of promotional job the librarian conducts in his insurance company. If he is able to convince company people, especially those on the management level, that the library can relieve them of considerable work and save their time and the company's money, the library function will be an important staff service. However, if the librarian sets up a kind of *public* library operation—that is, just waits for company personnel to come to *bim*, the library function will be *less* important, even though the librarian may be extremely competent in library science.

I would like to develop one more thought in relation to the second step in salary determination—that is, to what degree do you fill the demands of your job? It's my guess that many special librarians have graduate degrees in library science. This is a requisite in many of the librarian job descriptions I have seen. But how many insurance librarians are aware of how much they could increase 1) their knowledge and understanding of the essentials of the insurance business and 2) the contribution they are making

to it, by taking some of the courses leading to the FLMI (Fellow in the Life Office Management Association Institute) or CPCU (Chartered Property and Casualty Underwriter) designations? The former is a course of study in the essential operations of a life insurance company; the latter is for those with casualty insurance companies.

According to the best information I could obtain, only a few life company librarians have enrolled in the LOMAI courses in the past ten years or so—and one of them works for LOMA. It's my firm conviction that participation in these courses of study would be of great value to those who aim to provide an important service in their companies. Granted, a librarian can learn about the insurance business in other ways, but he might learn it better in one of these courses.

To sum up: What does management expect of its library function? My answer is—just about what *you* lead them to expect.

Describing and Analyzing the Librarian's Job

GEORGE W. PREVOT, Personnel Division

Metropolitan Life Insurance Company, San Francisco, California



M Y REMARKS ON the preparation of job analyses and job description techniques will be based largely on the ways these functions are performed at the Metropol-

itan Life Insurance Company. However, its practices are quite similar in many respects to those followed in other companies.

Let me say first that the Metropolitan's job evaluation program is established, as in other companies, to make sure that all jobs are fairly paid in relation to other jobs in accordance with the relative degree of skills and responsibility required. This is a very important point and bears emphasis.

Job descriptions are prepared on each job. Our program is designed to describe and evaluate all positions, and most relate directly to the processing of insurance transactions.

Job Evaluation Considerations

Our job evaluation program embraces six factors:

1. By far the most important is the factor of *job knowledge*. This encompasses the total knowledge required to perform the duties of

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- the job. It includes company knowledge, such as familiarity with records, rules, regulations, procedures, precedence, exemptions, sources of information, flow of work, company organization and so on. It also includes specialized techniques and professional knowledge, usually acquired through formal schooling or special training courses.
- 2. Machine skills are not necessarily found in every job, but here point credit is given according to a formula for the skill required to operate office machines.
- 3. Special mental abilities are a factor in which we are looking for extras required in the job, such as judgment, analytical ability, creativeness, ingenuity and other similar mental abilities that are essential to apply the knowledge and skills required of the job.
- 4. We recognize work demanding special accuracy because of consequence of error, such as lost cash, loss of time, loss of company prestige and even loss of business and possible embarrassment to the company.
- 5. Public and internal relations are concerned with the responsibility for creating and maintaining good will with policy-holders, the public and even with our own employees. This includes tact, courtesy, discretion, patience and diplomacy.
- 6. Physical working conditions are a factor inherent in relatively few jobs, but they are

taken into consideration in jobs resulting in muscular fatigue or physical discomfiture of the individual. Points are allotted generally on the continuity or intensity of the physical discomfort or muscular effort required.

All these factors may not necessarily be recognized in each position, but we have found they are inherent in our type of work.

Evaluation Process

Job descriptions are generally prepared by the immediate supervisor in cooperation with the occupant on the job. We want to be sure that the occupant of the job is satisfied that the job description accurately portrays the job. Job descriptions are then reviewed by the supervisory chain existing above the position described prior to submission to the Personnel Division, where they are carefully reviewed for completeness, format and so on by trained job analysts.

In the evaluation process, points are assigned to each applicable factor. The points are then totaled and converted to a salary level or classification. In our organization, levels or classifications range alphabetically A through S. This then, is the basis for establishing the relative difference in jobs.

The team supervisor, the division manager and the division officer—all have a hand in deciding what the job does, but not what the job is worth. Actually, no one individual determines the evaluation of a job, but rather a group of people, generally division managers representing important operation areas of the company, who form the Job Evaluation Committee. The members of this Committee have a wide knowledge of different jobs in the company and are experienced and skilled in weighing different job values. This Committee reviews the job descriptions and, through group discussion and judgment, prepares the recommendations for job levels for management's approval.

After review and discussion of the job description, the Job Evaluation Committee proceeds to evaluate a job generally by making comparisons with other jobs. The Committee summarizes its conclusions on what is called a job evaluation reason sheet. This form lists the points allotted by the group judgment of the Evaluation Committee for

each factor and summarizes its reasons for doing so. The reasons for the allotment of points for the factor of job knowledge for one home office librarian position reads:

JOB KNOWLEDGE: Knowledge of source references in the Company Library, Actuarial Library, and Law Library, and also those in the Public Library, Insurance Institute, L.O.M.A., and other outside companies and organizations, which are necessary to conduct research for information on assigned subjects—either the various phases of the insurance business or medicine and public health, e.g. for the insurance business, such phases as administration, staffing, management development, new contracts, taxation, legal involvements, legislation, proposed changes, organization, experience, etc. Knowledge of related company activities and the special interests of those concerned, in order to select new publications for purchase, index the proper subjects, and refer for attention. This work requires a broad general education and specialized training in library science as attained through college degrees or through considerable experience. Must have a fundamental knowledge of library administration, research techniques, methods of acquisition, cataloguing and circulation of materials, reference sources, compilation of bibliographies, etc., in addition to knowledge of the designated subject field.

200 points less than School Health Representative which requires a deeper knowledge of a subject field but about the same initial formal training.

Same points as Associate Editor and Assistant Procedure Analyst which are thought to have an equivalent fund of knowledge in their different fields.

This whole process points up the most important fact in the evaluation of jobs in our concept and that is, job evaluation determines the worth of the job itself rather than the individual occupying the job. In other words, we are attempting to find the intrinsic value of the job itself regardless of occupant.

It is proper to say here that a job description covers the actual duties and responsibilities the company places on a job, rather than recognizing the skills and experience a person might have that may have little bearing on the job itself. For example, I am sure that you can appreciate that an engineer on a calculating desk cannot expect to enjoy engineer's pay for that work. Of course, we are always trying to put the right people with the proper skills on the right job.

Pricing the Librarian's Job

DOROTHY E. EVERETT, Personnel Analyst University of California, Berkeley, California

In pricing jobs, several steps are taken: 1) jobs are described, analyzed, evaluated; 2) salary data from competitors are collected, and relationships to the data are determined; 3) internal salaries are compared; and 4) salary policies of the organization are considered.

An individual job consists of a group of duties and responsibilities assigned to one person. Job analysis is the study of jobs; its aim is to find out what a job involves—what various duties and responsibilities make up the job. Job descriptions are documents recording information about individual jobs.

Job Analysis

The means of gathering and recording information about individual jobs varies in different organizations—and the same organization may use different approaches depending on particular circumstances.

The most frequently used method is to gather information from the employee himself. He fills out a standard form used by the organization. It may be a questionnaire, a checklist or a duties card setting forth in narrative style the duties and responsibilities that make up the job. Whatever format is used, job descriptions contain information on the nature of the work, indicate the duties that comprise the job and how they are carried out, what supervision is exercised by others and what responsibility for the work of others is involved. Usually the employee's supervisor reviews the form to clarify statements or to provide additional information that the employee may not have explained. Even though a job description is carefully prepared and reviewed by a supervisor, there is usually need to gather more information.

Differences in interpretation and understanding must be avoided as much as pos-

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sible to give as clear and unbiased a view of the job as can be obtained. For example, "Prepares letters" in one instance may mean that the employee types rather routine letters; in another case an employee may use the same words, but she may assume it is understood that she gathers information from various sources, writes explanatory letters, perhaps sets forth conclusions on a course of action and then assigns to someone else the actual typing of the letters. Some employees may write in great detail or over-state, while others may be reticent and modest to the extent that the written description could be misunderstood. (My favorite job description is one which read: "100 per cent time—I do what I'm told.") In order to avoid misinterpretation, it is rather standard practice for persons trained in personnel work to review the material and discuss it with the employee and the supervisor to round out the picture and present information that is as accurate as possible.

Some organizations have personnel analysts who, on the basis of discussion with employees and supervisors, fill out the job description forms initially. Whatever techniques are used, the goal of job analysis is to ascertain what duties and responsibilities comprise the work performed by an employee.

As each job is a part of an organization, it is also important to know as much as possible about jobs over, under and around one particular job. Organizational charts of the unit as well as information about the other jobs are important in understanding the work of an individual employee.

Job Evaluation

The initial phase of establishing a classification and compensation plan for an organization requires that job information be gathered, studied and then evaluated in order to determine the value of the jobs to the organization. The same techniques are

followed generally when there is revision of an existing plan, whether the revision is to alter the classification and pay structure for jobs already included in the plan or whether it is to provide a structure for areas of work not previously included.

There are various methods of job evaluation: ranking plans, factor comparison plans, point plans and classification plans. There are also "mongrel" methods, which are variants or combine features of several systems. Whatever method is used, job evaluation determines the relative position of jobs within an over-all job structure.

The method used for evaluating librarian jobs and most other jobs at the University of California is known as position classification. It is a system of identifying and describing the different kinds of work in the organization and then grouping similar positions under common job titles. A series of classes are established, the series indicating the kind of work, i.e., librarian, and each class indicating the level within the series, i.e., the degree of responsibility involved in positions allocated to the class. In other words, a class is a group of positions similar in duties and responsibilities to the extent that each position in the group can be given the same job title, requires similar education and experience and is at a similar level of value to the University.

The job descriptions gathered on librarian positions are compared with each other in order to determine the over-all value of each job. In grouping the jobs, consideration is given to supervisory control over the position, originality of thinking required, skills and knowledges required, nature and scope of commitments, and control over the work of others. After grouping positions into classes, general descriptions usually termed class specifications or class descriptions are written, which describe common characteristics of positions in a class, differentiate from other classes and state minimum qualifications expected of employees in the class. The class specifications are used thereafter as the guides for determining the classification level of added positions or positions that have undergone changes in duties and responsibilities.

Perhaps it is appropriate to anticipate a question that may arise by stating that job analysis and evaluation are concerned with jobs, *not* persons. It is true that the qualifications and ability of a person affect a job; but the study of jobs is concerned *primarily* with the duties and responsibilities delegated to and performed by a person rather than with the training and experience of an individual.

It should be understood also that job evaluation is not scientific. It is as factual as possible, but judgments must be made in evaluating the worth of jobs. It is systematic, even though not scientific, and thus equitable treatment is a reasonable claim.

Establishing Salary Structure

When the job analysis and job evaluation phases are completed, resulting in the decision that there should be, let us say, five classes to encompass all professional librarian jobs in the organization, the next step is to price the jobs. Sound pricing of jobs—a sound wage and salary structure—has many aims. Primarily its aim is to obtain and retain the services of effective employees. An equitable wage and salary structure must consider various aspects that may themselves conflict. The relationship between wages and funds available, prices or profits, internal pay comparisons and external pay comparisons are necessary considerations.

One must find out what competitors pay. Each organization must determine what comparisons can be utilized. For example, the University of California Regents' policy states that in setting salaries, "prevailing rates for comparable service in both private and public employment, including the California State Service" shall be considered. Those concerned with pricing jobs must determine within this policy the salary comparisons that are appropriate. In pricing librarian and many other professional positions existing in the University, salaries paid at other universities and by other types of employers on a nation-wide basis are pertinent comparisons, but when pricing clerical positions, only salaries paid in California. are of real significance, as competition is local rather than national.

Salary data are obtained from organiza-

tions which employ persons doing work similar to that performed in the jobs under review. In collecting salary data, one must avoid drawing comparisons on the basis of job titles. Just as it is important to have information on jobs in one's own organization, it is important to know the *content* of jobs in other organizations from which salary data are gathered so that reasonably accurate comparisons can be made. Internal pay considerations are also studied so that salaries for one series of classes relate to others within the organization and are also consistent with the general pay structure of the organization.

Classification and Salary Structure At the University of California

Perhaps it would be helpful if I relate my further comments to the University of California classification and pay plan for professional librarians. In 1946 a job evaluation and compensation study was undertaken, which resulted in a plan for professional librarians and sub-professional library assistants that, with some alterations, continues to be used. A committee of professional librarians who had practical knowledge of personnel administration and a professional personnel worker with knowledge of library administration conducted the study. The study and conclusions reached were described in an article published in Library Quarterly in January 1947-"A University Library Position Classification and Compensation Plan," by Douglas Bryant and Boynton Kaiser. Job descriptions and organizational charts were reviewed, jobs were grouped into categories, classes were established and class specifications were written. Salary schedules for major university, college and public libraries in the country and for all important libraries in California were studied.

There were two sub-professional classes—Senior Library Assistant and Principal Library Assistant—and four professional librarian classes—Librarian I, II, III and IV. In 1947 the total salary spread for Librarians I through IV ranged from \$2,400 to \$5,400 per year. The current total salary spread for the same classes is \$4,980 to

\$10,344. There is also an Assistant Librarian class used at the Berkeley and Los Angeles campus libraries. The University Librarian class is under academic jurisdiction and is used for the head librarian of each campus library. This change points out the fact that even though most positions continue to be classified in the same number of classes, there has been an adjustment of salary ranges to reflect the general salary situation.

Each librarian class currently has a fivestep salary range, except the Librarian II class, which has six steps. To illustrate what is meant by steps, Librarian I starts at \$4,980; the salary range for the class consists of five salary steps, each representing approximately a five per cent increase— \$4,980, \$5,232, \$5,496, \$5,772 and \$6,060.

The University pay policy provides that increases are granted to employees in librarian classes, as well as to most other employees, annually on the employee's anniversary date on the basis of satisfactory performance. There is a policy provision for additional increases on the basis of meritorious performance, but limitation of funds has curtailed this policy. There is also another type of increase—that granted when an employee is promoted to a higher level class or when the position held by an employee is reviewed and determined to warrant classification in a higher class. The normal increase in these instances is five per cent or an increase to the minimum of the higher class, whichever is the greater.

The University at this time is undertaking a study to determine what changes may be appropriate in the current library classification and pay structure. Since the plan was put into effect in 1946, there have been significant changes in the libraries on all of the University campuses. For example, in 1946 the Berkeley campus library had a collection of 1,236,000 volumes and a staff of 70 professional librarians, and the UCLA library had 548,000 volumes and a staff of 47 professional librarians. Berkeley now has 2,500,000 volumes, and UCLA has 1,500,-000. Collections at the libraries on the other campuses at Davis, Riverside, Santa Barbara, San Francisco and San Diego have also

shown a great increase. As of June 30, 1960, the total volumes of all campus libraries numbered 4,730,000, and there were 340 professional librarians plus sub-professional library assistants and clerical employees.

In reviewing the class and salary structure of the librarian classes at the University, many aspects must be considered concerning the various libraries, such as number of volumes, size of staff, the nature of the collection, the type of clientele using it, the use made of the collection and the specialties involved. The many library activities must also be considered—personnel management, public relations, selection, acquisition, cataloging, circulation, reference and physical upkeep of materials. Job information must be brought up to date, and organizational charts must be reviewed. We will be considering whether or not the growth and increasing complexity of library activities warrant more classes within the librarian series. Too many levels, of course, mean there will be more borderline cases; too few levels, however, result in there not being significant pay recognition for jobs that differ in difficulty and degree of responsibility.

After the class structure is determined, we

will be concerned with proper pricing of the jobs. It will be necessary to make comparisons with positions and salaries for librarians employed by the State of California in the State Library and State College libraries, for other librarians in California and for librarians at other universities in the United States. Internal comparisons, the basic classification and pay structure for nonacademic employees of the University and the funds available for changes will also affect the ultimate action taken.

Pricing of jobs is not a static situation. Jobs change, pay levels change and job values change, so maintenance and alterations are necessary.

Many librarians no doubt read the cartoon strip, "Peanuts." Charlie Brown one day recently announced to one of his friends, "I always take a book out of the library during National Library Week. It does something for their morale. Librarians like to feel needed." I have found that circulation of books alone does not result in librarians feeling needed. The pay check, the pricing of the job, seems to have an effect on a librarian's morale just as it does on the morale of all who work for a living.

How One Company Describes And Pays Librarians

MARIAN G. LECHNER, Librarian
Connecticut General Life Insurance Company, Hartford, Connecticut

FOUR YEARS AGO the library of the Connecticut General Life Insurance Company moved into a new building, which is still regarded as one of the foremost office buildings in the United States. It was the perfect time to weed and rearrange the entire collection, to establish new procedures, to develop a library that would be as streamlined and modern, yet attractive and efficient, as the new building itself.

The library staff consists of the librarian,

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an assistant to the librarian, a library clerk I, a library clerk II and a part-time high school girl. We have tried various combinations of people and jobs. At one time we had six full-time people—two professionals and four clerks. This wasn't too successful; the combination we have now seems to be a winning one.

Job Description

I shall analyze the job description of the librarian in relation to the salary administration program at Connecticut General. After a number of interviews with the incumbent and the supervisor, the job analyst prepares

a job description, which describes the purpose of the job, outlines the duties and determines the requirements of the job in each of the following nine factors: 1) education or basic knowledge; 2) experience; 3) judgment; 4) responsibility; 5) contacts with others; 6) attention and dexterity; 7) working conditions; 8) character of supervision; and 9) scope of supervision. It has been the Job Evaluation Committee's practice to write up the job as it would normally be performed and leave the differences that pertain to the individual to merit rating.

My position description form reads as follows:

GENERAL PURPOSE OF LIBRARIAN: To operate the Company Library including business, law and recreational sections. To make available to company executives and employees published information to assist them in carrying out their company functions. To plan acquisition of books, periodicals and other library material, including recorded music; to recommend library policies; and to supervise staff.

REGULAR DUTIES

- 1. Selects books, periodicals and other material to be added to Library, aiming to select the best from a mass of literature, through appraisal of book reports, discussion with company personnel or other Librarians, review of book itself, and relying upon knowledge of publishers, book reports and authors. Anticipates needs of departments on new developments, new products, trends and periodic demand.
- 2. Provides answers to a great variety of questions of executives and employees in Home Office and Field. This normally requires the selective furnishing of reference material, analyzing or summarizing such material and frequently requires research. Catalogues and develops systems for maintaining library materials in such a way as to facilitate searching.
- 3. Keeps all employees informed of services of Library, stimulates its use for direct business purposes and encourages individual development of employees through suggested reading and use of Library.
- 4. Recommends policy including budget for Library, and has responsibility under only general guidance for developing all procedures to carry out policy.
- 5. Has full responsibility for planning the organization of Library. Develops, trains, appraises and supervises staff of three full-time and one parttime employees.
- 6. Selects and maintains recreation library includ-

ing: a) music library including "Music in General" (our noon-time music program); b) lending library of popular reading material.

Evaluation Factors

Nine job evaluation factors are listed on the reverse of this form. In a large space on the left side of the form, the job analyst determines the requirements of the job for each of the factors. Under EDUCATION OR BASIC KNOWLEDGE is this statement:

A professional librarian is expected to have an A.B. degree plus a Master of Science in Library Service, a one-year post graduate course. Equivalent to 5 years of college.

A similar definitive statement is made for each factor:

EXPERIENCE: Must have practical experience in library organization, evaluating purchases and in supervising personnel, must have a general understanding of insurance operations, and be skilled in public relations. 5 to 7 years practical background.

JUDGMENT: Judgment is required in anticipating needs of executives and employees and in selecting materials so that information is available when wanted. Judgment is required for planning methods and organization of Library, in promoting library services and in selective reference work.

RESPONSIBILITY: The over-all effectiveness of library service is involved. The job has responsibility for making available accurately facts and results of outside research as needed in forming decisions. Much costly research within the Company is eliminated by knowledge of identical research carried on elsewhere which is furnished our people by the librarian.

CONTACTS WITH OTHERS: Daily contacts with company officials and employees, in Home Office and Field furnishing information and promoting use of library services. Regular contacts with other librarians furnishing and obtaining information.

ATTENTION AND DEXTERITY: Normal

Working Conditions: Normal

CHARACTER OF SUPERVISION: Supervises section of 4, completing merit ratings and handling training and disciplinary problems.

SCOPE OF SUPERVISION: 4

Job Rating

After the description is shown both to the supervisor and to the incumbent, it is sent to the Position Evaluation Committee for rating. Both the supervisor and the job analyst are invited to this meeting to clarify points. A numerical degree is assigned to each factor

by comparing the requirements of the job with the written and established standards for the factors. These requirements are general measurement standards, and all factors do not have the same value in measuring the over-all worth of the job. They therefore have been weighted by assigning points to each degree in each factor. For example, in this particular job, Factor I (Education or Basic Knowledge) has been assigned 5. Various other degrees in this factor are 1, 2, 3, 4, 5, 6, $6\frac{1}{2}$.

Degree 5 states that the educational requirements for this job are: "Broad knowledge of a general technical field such as accounting, finance, business administration or working knowledge of many broad fields. Equivalent to four years' college." Degree 6 states, "Broad knowledge of an advanced and specialized field. Usually equivalent to 2 years of post-graduate work. Associate actuary." Degree 6½ is for a lawyer or Fellow of the Actuarial Society. It can be seen that the education or basic knowledge requirements for the Librarian fall most nearly in degree 5.

Each degree has a point value, i.e., the fifth degree for Education has a point value of 100, while the fifth degree for Experience has a point value of 90 and a fourth degree for Judgment has a point value of 100. Corresponding points for the degrees thus assigned are posted and totalled. The total points indicate the position grade to which the job is assigned. The points in themselves carry no dollar value. They are used only to classify or place a position in a grade, and after having served this purpose they may be discarded.

Each year on the incumbent's anniversary a position description is sent to the incumbent and the incumbent's supervisor for review. In this way changes are regularly brought to the attention of the Evaluation Committee and are reflected in the new position description.

The position of Librarian has been determined as job grade 12. Other typical jobs in grade 12 are Underwriter; Supervisor, Legal Settlement; Supervisor, Mathematical and Accounting Division, Reinsurance; Supervisor, Rates, Actuarial Department; Supervisor, Rates, Actuarial Department;

pervisor, Closing Division, Mortgage and Real Estate; Chief Programmer, Data Processing.

Standards of Performance

Two years ago at the SLA Convention in Atlantic City we had a meeting on the determination of standards. I think the people in personnel management are going to be talking more and more about standards of performance in connection with performance rating and salary administration. For instance, our supervisor's manual says, "A performance standard is a statement of conditions that will exist when a job is satisfactorily done." It completes the statement, "This job will have been satisfactorily performed when the following results are obtained. . . . A performance standard emphasizes results; it makes the person accountable for the results of what he does. A job standard is not a job description. The standard will do more than list duties or procedures; it stresses results, in terms of how well, how many, how soon, and in what manner." At Connecticut General performance standards have been established for Job Grades X and above. Here are the standards that have been prepared for the Librarian:

This job will have been satisfactorily performed when:

- 1. The library provides the material for essential research in the conduct of our business.
- 2. The library provides reference service to assist in essential research.
- 3. The library promotes its services so that employees look to it for assistance.
- 4. An attractive appearance is maintained.
- 5. Reasonable budgets are submitted and observed.
- 6. Educational material for staff is available and its use promoted.
- 7. Recreational services are popular and efficiently operated.

Merit Rating

On the merit rating form these performance standards can be applied to evaluate both performance and results. In the left column, the supervisor doing the rating lists each of the performance standards. The employee's performance is rated against each standard for that job using the criteria: 1) inadequate; 2) slightly deficient; 3) satis-

factory; 4) clearly exceeds standards; and 5) outstanding.

Predicted future progress in the job is indicated in the right-hand column; and again progress is rated against the standards for the job by applying the scale. On the reverse of the form the employee is rated for his potential and capacity for growth within the company. This procedure removes merit rating from the realm of personality influence, and it becomes an objective analysis both for the supervisor and the employee.

Employees through Job Grade IX are rated on attendance, quality of work, volume and teamwork. Merit ratings for clerical employees are prepared about two months before the anniversary date. On the form used for this merit rating, ratings may be 1, 2, 3, 4 or 5. Rating 3 is Satisfactory or Normal (50 per cent of our employees fall in this level), 4 is Excellent or Above Average (36 per cent of our employees fall in this level), 5 is Outstanding (10 per cent are in this level); the remaining are deficient or on probation.

Most individuals are composed of strong and weak traits. Merit ratings reflect this in the comments of the supervisor. The numerical figure for an employee's merit rating largely determines the amount of his annual increase. Let me repeat, it is Connecticut General practice to write up the job as it is actually performed and leave the differences that pertain to the individual incumbent to merit rating.

Salary ranges for each job grade are established after a thorough review of salaries paid among insurance companies and all industries in the community. Job descriptions are the basis for this comparison.

Other Library Positions

The Assistant to Librarian is job grade VII (a position that assumes a high school diploma and at least four years' experience in the job). The incumbent is responsible for all the ordering and accounting procedures as well as doing some of the reference work. Other jobs in this grade are Teamcaptain; Senior Reviewer, Income Settlement; Senior Tax Clerk; Policy Loan Checker.

The Library Clerk I is a job grade IV (a position that assumes a high school diploma and an aptitude for numbers or manual dexterity). Her duties in the library are mainly typing catalog cards after a sample card has been prepared, preparing routine correspondence and maintaining back files of periodicals. Other jobs in this grade are Secretarial Trainee, Key-Punch Operator, Clerk-typist.

Library Clerk II is a job grade III (assumes neither formal education nor training). In our library this person checks in periodicals, routes them from a prepared list and works at the circulation desk. This is a routine clerical job throughout the company. The part-time high school girl is not classified, but she shelves books, sends out over-due notices, straightens the shelves and so on.

Library Program

Even with a personnel management program as advanced as Connecticut General's, it is difficult to measure the jobs in the library. Libraries have no tangible, clear-cut identifiable product to which a yardstick can be applied—our traffic is with ideas. But our program of performance standards has made great strides in establishing measurable results.

Let me sum up our library program:

- 1. The library is a purposeful activity that meshes into the total goals of the company.
- 2. The librarian's job is defined and evaluated in terms of its worth to the company and the purpose for which the library is intended.
- 3. The librarian's skills, knowledge and technology necessary to accomplish these results and achieve these objectives are measured.
- 4. Performance standards have been established to clarify objectives so that both management and librarian know what is to be accomplished so we can coordinate our efforts.
- 5. We also read "Peanuts." I remember very well the strip where Charlie Brown says that librarians like to feel needed. Miss Everett says that they also like to be paid. I agree with both of them.

The What, When, Where, Why and How of a "Profession"

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Defining "profession" has never seemed necessary as long as it is confined to the three learned professions—medicine, law and theology. Only in the pres-

ent century have numerous other groups claimed professional status, incidentally to the disgust of the learned professions, and with these claims has arisen the need of some means of differentiating the profession from the nonprofession.

Certainly the profession and its definition change over the years. Nevertheless a profession must have certain attributes if it is to be classed as one. It must be based on a body of specialized and complex knowledge not easily attainable. The practice must be of vital importance to the client and society, and the practitioner must enjoy the respect of the community. It must be organized, and the association must enforce a formal code of ethics, which may also be enforced by the state. The organized association and the state must require evidence of formal training or education in the body of knowledge identified with the profession and must have the right to test that knowledge and its application. The profession must place the interests of the client and the public above the immediate interests of the practitioner. Its practitioners must be paid directly for their services either by individuals or by a group. Finally, admission to practice and the right to continue is the concern of and in direct control of society itself.

In recent years many groups have sought professional status, as specialized bodies of

Extracted from paper presented before the Insurance Division, May 29, 1961, at the 52nd Annual Convention of Special Libraries Association in San Francisco, California.

knowledge have become necessary to work in their fields. Among these late comers are teaching, accounting, dentistry, veterinary science, engineering, writing, publishing, nursing and many others including, of course, library science. In very recent years, certain segments of business, perhaps led by the accountants, have attempted to establish professional standards and define certain areas of knowledge necessary for the practitioner. These lack attributes previously mentioned for professional standing, but certainly the time is long past when the word "profession" could be made to apply to only the three learned professions.

The extreme complexity of business has made establishing professional standards difficult. Of course the fact that business has never commanded the respect accorded a profession, hasn't helped.

The difficulty of complexity is surmountable. Medicine is a very complex thing too, but over the years the term "medicine" has come to mean everything connected with the art of healing, and the profession of medicine has narrowed to include the practice and activities of the doctor. Surrounding him are many other activities not necessarily a part of the profession—hospital administration, X-ray technicians, nursing, dietetics and dieticians, research scientists and others. But the professional man is the doctor, and the specialized body of knowledge acquired and practiced by him is that body of knowledge necessary to the profession.

An example of a complex business is insurance. It has far too much scope for a single profession. It cuts across many professional lines as well as other business lines. The business employs doctors to examine applicants for life insurance, to pass upon life insurance applications, to staff rehabilitation centers for injured workmen. Ask one

of these men what his profession is and he will invariably reply "doctor" and not "insurance man." The business employs attorneys to defend cases, to prosecute others, to draw up contracts, to give legal advice. These men are attorneys and not insurance men. The business employs C.P.A.'s, actuaries, engineers and investment experts too, but they don't identify themselves as insurance men. Insurance companies have public relations sections, libraries, educational departments, personnel departments, printing plants, cafeterias, property managers and many others that are not per se a part of "insurance."

So, to identify the professional business man, or the man who should be interested in becoming a professional business man, we must eliminate all those necessary but subsidiary activities that surround the business but are not a part of it by narrow definition.

Professional Attributes of a Business

What can be said on the positive professional side for insurance, an example of business, as a whole? It is based on a body of specialized and complex knowledge not easily attainable. The practice of insurance is of vital importance to the client and to society. It is assumed that the insurance practitioner enjoys as much respect in the community as any other business man.

It has been mentioned that the profession must be organized and the association must enforce a formal code of ethics, which may also be enforced by the state as is true in medicine and law. In the United States there are only two insurance societies that demand knowledge for membership and that have established a professional code of ethics. These are the Society of Chartered Life Underwriters and the Society of Chartered Property and Casualty Underwriters. Compared with the number of people employed in the insurance business, these two societies have a pitifully small membership. In addition to the two so-called professional societies, there are many other associations connected with insurance, many with high-sounding codes of ethics, but those are principally sales organizations with no enforcement machinery.

Another criterion demands that the organized association and the state must re-

quire evidence of formal training or education in the body of knowledge identified with the profession and must have the right to test that knowledge and its application. The two professional societies do demand evidence of education of a relatively high order in insurance, and of a somewhat lesser attainment in certain other forms of business administration. Both, however, require only a weak high school diploma as a prerequisite for taking the examinations leading to the designations. Whether or not the passing of the examinations themselves shows evidence of long and formal training in the body of knowledge necessary to the profession of insurance is another question.

Another of the criteria of the professional group, mentioned previously is that its practitioners must be paid directly for their services either by individual clients or by a group. In medicine and law down through history this has been the most effective means for society to police the professions. Society has always believed that the profession must place the interests of the client and the public above the immediate interests of the practitioner. The most effective way to impose this control is to pay the practitioner directly and to cease paying him if he ceases to act in the common interest or if he places his own interests above those of the client.

Admission to practice the profession and the right to continue is the concern of and in direct control of society itself. This is probably the most important criterion of all. In the final analysis, society itself will decide which vocations will be classed as professions and will interest itself in standards of training for the profession, examination of candidates, ethics of the practitioners and standards needed for continuation in practice.

Professional Attributes of a Manager

Look at the insurance business from quite another direction in this matter of professional standards. In recent years there has been a real attempt to establish business itself as a profession, and these attempts are worth a look. The concept of the professional manager and professional management has grown with the gradual replacement of the owner as a manager. Many

companies have become too large and complex for the owners to continue in the management function. For the benefit of the stockholders, and under the general direction of the board of directors, the professional manager has assumed control. Terry* says "the time is rapidly approaching when merely the application of common sense and normal intelligence will be insufficient to meet the full needs of managing the whole or a part of an enterprise. Knowledge of the management process will be needed along with the skill in applying it effectively in individual situations."

American colleges have attempted to produce an all-round professional manager who would be at home in any business situation not calling for one of the more rigid specializations like accounting or actuarial science. This has been done in recognition of the fact that the importance of the professional manager will increase, the trend toward the separation of ownership and management will continue, and a concept of trusteeship will modify the traditional view of the manager as representative solely of ownership.

As presently constituted, the standards call for a background in the liberal arts with a broad education in business, including human relations and personnel management, accounting and financial management, business law, marketing and sales, production management, and economic and statistical processes important to business and its environment. Educational standards vary among colleges but there are basically two types of programs. Harvard and Stanford typify one approach that demands, with some exceptions, a four-year education in the liberal arts plus two years of graduate study in business administration. The more common program demands 50 to 60 units of liberal arts with a major in business administration on the undergraduate level, with a one-year graduate program in advanced business administration subjects.

Terry* says this about the modern concept of management:

"For the past several decades a trend toward

greater social and ethical obligations on the part of managers has taken place. This is due, in part, to the increasing realization of the interdependency of economical, social, and political forces; to the greater recognition that group human efforts are made effective by good management; and to the performing of management in keeping with acceptable moral standards.

"Management, by its very nature, implies social and ethical considerations. In the final analysis, the whole being of most management exists for the betterment of human beings. Through management the supplying of socially desirable products and services at attractive prices provides employment and contributes to the physical welfare and betterment of people. In addition, the manager followed by those doing the management work is scrutinized; that is, the managers' moral behavior and conduct in performing their specialized work are evaluated in terms of what is desirable and what is not. Also, in many respects, the 'culture concept' and semantics are two growing mental tools which the manager is using more and more advantageously in his work. The majority of successful managers today utilize dependable knowledge, effort, skill, and understanding of humanics. Better employees and better citizens are synonymous. This criterion is accepted and heartily endorsed by modern managers."

Most of the new-found professions lack one of the important ingredients for professional status. They are maintained by an employer who pays them for practicing their professions. For this reason they are more than somewhat at the beck and call of said employer, and it is not improbable that in many cases the employer sets the standards under which the professional will practice. If he doesn't like these standards he can quit, but he then must find another employer. It is true that the professional manager at the top level in the major corporation is quite free of domination by his employer. A small segment of the education profession too, the members of the American Association of University Professors, through their code of academic freedom, have to a certain extent freed themselves from domination by their employers. Few other groups have been able to do so unless the law took a hand.

More and more the colleges of business administration are seeking to make business an increasingly effective institution within the democratic system, and they are becoming a positive force in the development of the institution of business.

^{*} TERRY, George R. Principles of Management, rev. ed. Homewood, Ill.: Richard D. Irwin, 1956. p. 12.

The Importance of Professionalism For the Special Librarian

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W HEN WE THINK of a professional we think of a mature person with specialized skills, plus a distinctive attitude toward applying those skills. This attitude stems from a personal integrity

revealed in honesty and sincerity in the fulfillment of duties. Integrity is measured by personal standards of service—the extra quarter mile or quarter inch, whatever the yardstick—carrying the professional beyond the expected. To be successful, everyone must have this intangible personal integrity; in essence, he must uphold Shakespeare in the statement, "to thine own self be true."

Maturity is that quality that manifests itself in stability—the ability to stay with a job; in perseverance; in the ability to make decisions and abide by them, with wisdom to change if an error in judgment is obvious; in flexibility—the willingness to cooperate with others and ability to compromise without regret when it is necessary; in imagination the ability to project thinking beyond the immediate scene to a long-range viewpoint, and with this perspective, maintain a proper sense of proportion relative to the importance of each decision. The development of these personal attributes will inevitably be carried through in our working relationships, deepening our sense of service and strengthening the standards requisite for a respected profession.

Francis Bacon once said, "I hold every man a debtor to his profession." The chemist, the physicist, the engineer, the librarian

Paper presented on May 30, 1961, before the Chapter Employment Chairmen, at the 52nd Annual Convention of Special Libraries Association in San Francisco, California, as part of a panel discussion on "The Importance of Professionalism."

all have certain professional responsibilities in common, once they have attained professional standing. They are obligated to uphold the standards learned during their training and those fostered by their professional associations. Professional integrity leads each person to require of himself standards of performance commensurate with his qualifications. It is necessary to cultivate a sense of professional loyalty. It is one's responsibility to progress in his chosen profession, to attain technical competence and to grow on the job; he must be alert to professional trends by reading widely, by joining professional societies and attending their meetings; otherwise he is delinquent in his professional responsibilities. Such a person has a duty to contribute to his profession and to expand the total knowledge. It is, in fact, his self-acknowledged responsibility to society. Yet another individual responsibility is in recruiting; the profession must be replenished by active young people. Enthusiasm for one's profession should be carried beyond the normal work load; such enthusiasm will then attract others who will be challenged by the satisfactions offered.

The special librarian shares with other professionals who work in business and industrial organizations a dual *loyalty*—allegiance to his profession and allegiance to his company. The special library is companyoriented; the nature and size of its collection may require that traditional ways of library organization be discarded or modified for the sake of expediency. Compromises must be made, but the attitude of a special librarian will consistently be service-centered.

The librarian, in establishing library regulations and procedures, must be *adaptable* and learn to work from the total viewpoint of the organization. Management has this over-all viewpoint, so the librarian must

widen his perspective and learn to give and take. In this way, management and the librarian can work together to set standards of service. The willingness of the librarian to adapt his library services to be compatible with company policies determines the success or failure of the library. Management on its part will profit from the high standards of service of its librarian. Quality service cannot be measured by statistics, but it will inevitably contribute directly and indirectly to the achievement of the company goal.

A profession is only as good as the worth of its members. It is up to each one of us to set and meet the highest standards of efficiency, and as members of this organization, to develop attitudes of service which will reflect the high standards to which we commit ourselves. Surely we can have no loftier aim than the familiar quotation, "And by their works, ye shall know them."

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Library Technology Project Report

GLADYS T. PIEZ, Senior Editorial Assistant Library Technology Project, American Library Association, Chicago, Illinois

THE APRIL issue of Special Libraries* carried an article which describes the purpose, areas of operation and some of the programs of the ALA Library Technology Project. The Project is very glad to accept the editor's invitation to report further on its activities to members of the Special Libraries Association in the January, April and October issues of their journal each year. This, the first of such reports, covers progress since April.

Fire Study

A comprehensive investigation of the problems of fire and insurance protection of library resources, conducted by Gage-Babcock & Associates, consulting engineers, is near completion. At its conclusion, a manual will be published incorporating the findings of the inquiry, as well as recommendations and criteria for fire protection of both old and new construction. A model fire insurance policy for libraries is also expected to result.

Systems Study

The systems study of methods and equipment for reproducing catalog cards has been completed. It was conducted by George Fry

* Special Libraries, vol. 52, no. 4, April 1961, p. 183-4.

& Associates, the management firm which made the recent study of circulation control systems. The report of the results, planned for early publication, will include information on card reproduction processes, reproduction equipment and materials, guides to the selection of reproduction procedures and suggestions for increasing the efficiency of reproduction equipment.

Testing

The most important testing program undertaken by the Library Technology Project is that recently completed by William R. Hawken on methods and equipment for copying bound materials. A full report on this project is scheduled for publication late in 1961.

Two testing projects are being conducted for LTP by Foster D. Snell, Inc. One is designed to identify better adhesives for use in adhering paper or cloth labels to a variety of bookbinding materials. The second project will evaluate protective film coatings. Actual use produces damage to microfilm, motion picture film and film strips, and one of the major causes of damage is abrasion of the film's emulsion. Recently a number of products have been developed in an effort to provide some degree of scratch resistance to

such films. The current project is designed to determine whether these products offer sufficient protection to film to make them worth the cost, whether they can be applied successfully in libraries or must be applied by a commercial establishment, and whether the life of the film so treated is adversely affected. This project will take about ten months to finish.

A report on the permanence and durability of certain catalog card stocks should be ready by late fall. This testing project was conducted by W. J. Barrow, document restorer at the Virginia State Library.

Recently approved are testing programs in the following fields: methods and equipment for producing full-size copy from microfilm, library-type record players and typewriters.

Research and Development

A project to produce a better, more durable board for archival containers, suggested by and to be carried on in cooperation with the Public Archives Commission of Delaware, was approved in August.

Further refinements may be made to the Little Giant self-charging machine which was built originally during the circulation control study.

Information about the new device for preparing book labels, produced for LTP by Battelle Memorial Institute and shown at the ALA conference in Cleveland in July, will appear in the January 1962 issue of Special Libraries.

Standardization

A report, entitled Development of Performance Standards for Library Binding, Phase I, was published in July and may be purchased from LTP for \$1 a copy. Phase II of the project, to start this fall, will develop the new performance standards identified during the first phase and the methods by which they can be tested and evaluated.

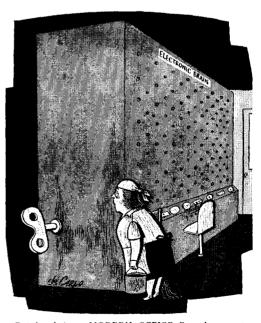
Information Service

As results are obtained from testing, standards, research and development and systems projects, LTP is able to provide

authoritative answers on a greater number of subjects. Members of SLA who would like information in any of these areas should send their requests to the Library Technology Project, American Library Association, 50 East Huron Street, Chicago 11, Illinois.

Automatic Photo Copier

The Anken Chemical & Film Corporation, Newton, New Jersey, the Ozalid Division of General Aniline and Film Corporation, Johnson City, New York, and Photek, Inc., Providence, Rhode Island, have announced a fully automatic machine that copies any original up to 11 inches wide and to lengths of 150 feet. The copier automatically turns itself on when an original is fed into it, makes the exposure, adjusts itself to the length of the original, trims the positive and delivers a developed flat and dry print. It produces four copies a minute and turns itself off. The machine is marketed under the name "Amptomatic," and "Transcopy Automatic," "Cormac 600," and "Contura Executive" by the four marketing subsidiaries of Anken; "Transfer-a-matic" by Ozalid; and the "Consecutor" by Photek.



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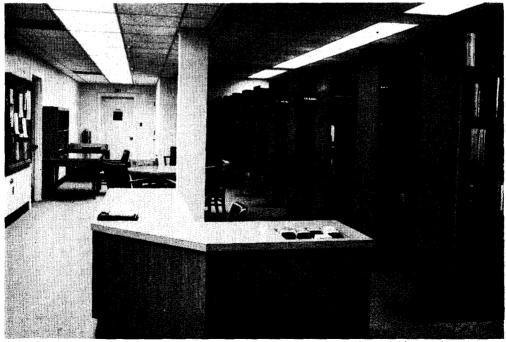
Planning the New Library: The Mead Corporation Library

ANN L. HOWARD, Librarian
The Mead Corporation, Chillicothe, Ohio

The Library for The Mead Corporation, one of the oldest in the paper industry, was organized in 1930 as part of the research department at Chillicothe, Ohio. The Mead Corporation, one of the ten largest manufacturers of paper and board, has 38 operations in 30 cities located in 16 states. Its headquarters are in Dayton, Ohio. In April 1961, The Mead Corporation dedicated new additions to its \$4,500,000 Research Center at Chillicothe. Occupying entirely new quarters in the Research Center, and with facilities for seating 35 people, is the corporation library.

Information concerning the libraries within the paper industry is not readily available, since there are no published studies in this field. In view of the lack of knowledge concerning the libraries within the paper industry, and to aid on long range planning for Mead's future requirements, visits were made, in the winter of 1958-59, to the libraries of the Champion Paper and Fibre Company, International Paper Company, Kimberly-Clark Corporation, Scott Paper Company, St. Regis Paper Company and West Virginia Pulp and Paper Company. A detailed report was written analyzing and comparing the libraries, and the data secured was most helpful in planning the new library for The Mead Corporation.

The library serves the entire corporation, and during 1960 handled approximately 1,000 requests for service from the divisions



Research Photography, Mead Corp.

Charging desk is in center of library near book stacks and within view of professional staff.

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Floor Plan of The Mead Corporation Library. The total area is 3,360 square feet. Seating capacity is 35, exclusive of library staff.

Key to Floor Plan

- 1. Current periodical
- 2. Reading tables
- 3. Arm chairs
- 4. Periodical display racks
- 5. Air conditioning units
- 6. Librarian's office
- 7. Library staff desk
- 8. Counter-high book shelves
- 9. Credenza
- 10. Documents room
- 11. Card catalogs
- 12. Filing cases
- 13. Correspondence tray and stand
- 14. Microfilm reader
- 15. Fireproof vault
- 16. Shelving for vertical filing
- 17. Microfilm cabinet
- 18. Carrel desks
- 19. Encyclopedia table
- 20. Bulletin board and periodical list
- 21. Book truck
- 22. Charging desk
- 23. Dictionary stand
- 24. Dard Hunter display case
- 25. Assistant Librarian's office
- 26. Workroom
- 27. Cupboards for supplies—sink
- 28. Book stacks
- 29. Kardex cabinet and table
- 30. Counter-high shelving for vertical filing
- 31. Book and bound periodicals stack area 32. Abstract bar

located outside Chillicothe. Two weekly bulletins, which circulate internally, are a popular information service of the library: 1) New Developments is an abstract bulletin covering new materials, equipment and processes that have been described in the periodicals, and 2) Library Bulletin is a listing of new books, pamphlets, translations and company technical reports that have been processed each week by the library staff. Included also is a brief listing of the more pertinent periodical articles culled from current journals. One hundred and seventy copies of both bulletins are distributed.

The library is located in the east wing of the second floor, which houses 39 laboratories and offices. The entire Research Center covers a total of 109,135 square feet and is a complex of research laboratories, pilot plants, tools and equipment to serve the needs of Mead's 38 plants. Everything from test tubes, on one hand, to a computer, an electron microscope and two full-fledged models of paper machines, on the other, is available as tools for the 200 scientists and technicians to use in their investigations. The buildings, of Georgian architecture, are in keeping with Chillicothe's historical aureole. They were designed by Lorenz and Williams, Dayton, Ohio. The first building for the Center was constructed in 1952, and two major additions have been necessary.

The new rectangular library occupies 3,360 square feet. Mobilwalls, by Virginia Metal Products, form two offices, a workroom and a documents room. Several of the Mobilwalls have clear glass windows for supervisory purposes, and the partitions are continued to the ceiling for privacy. There are individually controlled air conditioning units and a suspended acoustical tile ceiling with flush mounted fluorescent fixtures. The library has wall-to-wall, wool, two-tone beige tweed Archibald Holmes' carpeting in all areas except the workroom and documents room, where there is marbelized beige vinyl tile.

In 1952, when the library was moved into the new Research Center, all new furniture in wood was purchased from Globe-Wernicke. The wood finish was Palomino, one of the light birch finishes. This existing

library furniture has been used in the new library along with new furniture, in a natural birch finish, purchased from the Library Bureau of Remington Rand.

Double swinging doors, which have glass tops lead into the library from the corridor. To the left of the main entrance is the current periodical area where 250 periodical titles are displayed on slanting, wood shelving. From one to 20 copies of titles are received depending upon the demand for circulation. Regular periodical circulation, by means of routing slips, is provided the Research Center staff members. Similar periodical service is extended to the neighboring mill division and to other corporate offices located in Chillicothe, Periodical circulation for 1960 was 50,000. Ten foreign language journals are received. There are 15 different foreign language proficiencies among the Research Center staff members, and there is an active translating program.

The slanting periodical shelving lines three walls, and there are three square-round reading tables in the area. The tables are of the Library Bureau of Remington Rand Trend line and have birch-grain Formica tops. There are four armchairs, manufactured by the W. H. Gunlocke Chair Co., of Ranger design, at each table. They are upholstered in top grain leather in sulphur, persimmon, saddle tan and coronation blue. The armchair colors are mixed at each table and throughout the rest of the library.

Two walls of the periodical area are painted turquoise; the coronation blue leather chairs match these walls exactly. The third wall, in beige, is one of the Mobilwalls of the librarian's office. The two windows in the current periodical area are draped in a Schumacher print with antique navigational logs and instruments. They pick up the colors used in the leather armchairs and go well with the Georgian design of the Research Center. Venetian blinds are also at the windows.

The librarian's office has two walls with clear glass windows permitting a view of the charging desk as well as the desk and card catalog in the documents room. Communication between the offices of the librarian and the assistant librarian is by an intercom sys-

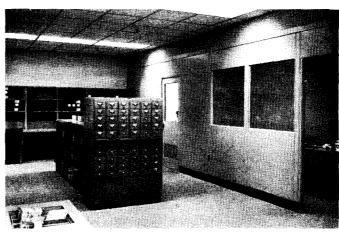
tem. One wall of the librarian's office is turquoise, and the other walls are beige. Persimmon and blue leather chairs are used.

The documents room contains the corporation's file of 16,000 technical reports and the correspondence (or project) files for the Research Center. The technical reports are kept in a fireproof vault, on Remington Rand Library Bureau shelving for vertical filing. The correspondence is in filing cases, and there is a correspondence tray and stand that can be moved as needed. The 60-drawer, wooden, card catalog holds the author and subject cards for technical reports. The microfilm cabinet in the vault stores the rolls of internal technical information placed on film for security purposes. A 16mm

The charging desk is desk height and, like the reading tables, has a birch-grain Formica top. The dictionary stand and a second 60-drawer card catalog are nearby.

Opposite the current periodical area, and to the right as the library is entered from the corridor, is a nine-foot display case for the library's valuable collection of the Dard Hunter books on papermaking by hand. Mr. Hunter is the world's authority on handmade papers and their varied and primitive methods of manufacture. His travels have taken him all over the world as he investigated papermaking practices, collected different types of primitive equipment and purchased unusual paper samples with which to illustrate his books.

Mobilwalls form office of assistant librarian and workroom. Counter-high vertical shelving holds pamphlet and trade catalog materials.



Research Photography, Mead Corp.

Burroughs microfilm reader is in a corner of the documents room. The documents room is aqua, the filing cases beige; there is a round reading table with saddle tan leather chairs.

Three carrel desks are located near the second, and outside, entrance into the library. A rectangular reference table, with shelving along one side, holds the library's general encyclopedia and the Encyclopedia of Chemical Technology. A 4 x 5 foot turquoise bulletin board displays book jackets of new acquisitions and current issues of the two library publications. A Kardex interlocking tube wall bracket for periodical holdings is on the wall beside the bulletin board. The walls in this area of the library are bone white. There is a round reading table with four chairs.

The volumes displayed on three well-lighted shelves were published in limited editions and are all printed on handmade paper. For several of the volumes Mr. Hunter designed the font of type, cast it and printed the books at his Mountain House Press in Chillicothe. The Dard Hunter books are the only rare books in the library.

The office of the assistant librarian has two Mobilwalls of beige, with glass windows overlooking the charging desk and card catalog. Literature searching and other types of reference work are the responsibility of the assistant librarian, so the office was placed near the corridor entrance. There are two walls in turquoise, and the chairs are of sulphur leather.

The workroom is equipped with a laboratory unit composed of six cupboards, stain-



Current periodical area where 250 periodical titles are available.

Research Photography, Mead Corp.

less steel sink and a white Formica counter top. The Verifax Book Copier is located here. The beige cupboards hold supplies such as catalog cards and file folders. There is an eight-drawer Kardex cabinet for periodical records on a sturdy Kardex table with a hinged front leaf. The cabinet and table are beige as are the filing cases. Two sections of gray metal book stacks hold materials to be processed. Two walls are turquoise and two are beige. The two chairs are upholstered in sulphur and persimmon.

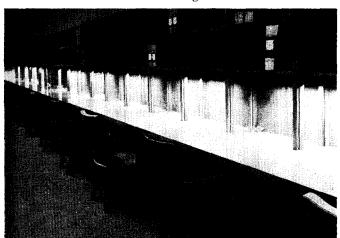
Just outside the workroom door, and behind the 60-drawer card catalog, is a nine-foot section of double, counter-high shelving for vertical filing. One side is used for pamphlets, the other for trade catalog materials. The counter top is of the birch-grain Formica.

There are nine ten-section units of freestanding Globe-Wernicke gray metal book stacks and one five-section wall range in the book and bound periodical stack area. There are light birch wood end panels on the stacks facing the charging desk; gray metal

end panels face the abstract bar. Each tensection unit has a sliding reference shelf.

There are no windows along the southern wall of the library. A 54-foot abstract bar, made entirely of birch-grain Formica, provides a quiet study area, and the shelving above the bar holds the library's runs of Chemical Abstracts, the Abstract Bulletin of The Institute of Paper Chemistry and other indexes and abstracting services. Fluorescent lighting, below the first shelf, is individually controlled and adds to the usefulness of the area. The abstract bar was designed by Mr. A. E. Heierman, Manager of Engineering Services, and built by the contractors. Ten armchairs are used at the abstract bar. The walls are bone white.

Since the new library was located in the

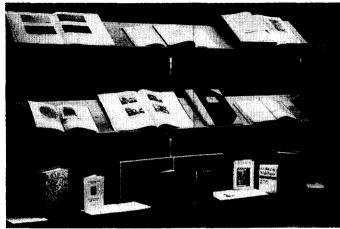


Abstract bar lines 54-foot wall in quiet area of library.

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Research Photography, Mead Corp.

Display case for the rare Dard Hunter books on papermaking by hand is near corridor entrance.



Research Photography, Mead Corp.

same building and on the same floor of the Research Center as the "old" library, the library trucks sufficed for moving the collections. Four men from the Engineering Services staff were assigned to the librarian. The assistant librarian and two men placed the books, in order, on the trucks, and the librarian and two men removed the books and put them in their new areas. Since existing book stacks required additional sections, only half-days were spent in moving, and it took ten days for the move to be completed. New furniture and equipment were put in place as received, and existing furniture was moved as needed. At no time was the

brary's routine so disrupted that service could not be given.

The dedication of the new additions to The Mead Corporation Research Center was held on April 24, 1961, when the Board of Directors toured the entire facility. This dedication was followed by a series of ten open houses, during which thousands of visitors were shown through the laboratories, offices and library. Copies of the library handbook, which briefly outlines services and resources, were distributed.

The library anticipates a continuing growth, in service and in size, mirroring the expansion of The Mead Corporation.

VITAL STATISTICS FOR THE MEAD CORPORATION	LIBRARY
Total square foot area	3,360
Staff	4
Professional	2
•	2
Nonprofessional	
Employees served at location	2,500
Services extended to other areas	Corporation-wide
Average number of users per day	<i>75</i>
Technical Reports	16,000
Books and bound and unbound periodicals as of August 1961	6,000
Current Periodical Subscriptions	250
Vertical file drawers	122
, =====================================	April 1961
Date of completion	
Planned by Manager of Engineering Services, architects and librario	ins
Special facilities or equipment: Verifax Book Copier; Burroughs 16mm microfilm reader;	
translating program incorporating 15 different foreign languages; Dard Hunter rare	
book collection on papermaking by hand.	
Other unique features: Library has responsibility for central correspondence (or project)	
files for Research Center; regular periodical routing extended to neighboring mill.	
files for Research Center; regular periodical rouning extended	

This Works For Us . . .

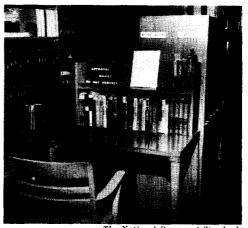
Approval Books for a Science Library

The Library of the Boulder Laboratories of the National Bureau of Standards has established a system of displaying approval books, which supplements its regular selection and acquisition procedures. This system results in better selection of books, more prompt receipt of many titles, increased interest in the library and excellent relations with the bookstore through which it works. The bookstore agreed to help the library on an experimental basis, but the system has been so mutually beneficial that it has continued.

This is the way we do it:

- 1. The bookstore made arrangements with key publishers in the physical sciences (we gave them a list, and they added a few) to receive, on a three months' approval, all new titles in physics, mathematics and certain technologies.
- 2. The bookstore delivers these to the library on alternate Fridays, and they are placed on the approval shelf by noon. Any obvious misfits are held back by the bookstore, but there is a minimum of selection beyond that done by the publishers.
- 3. The library prepares approval book slips and an alphabetical list to be checked against the invoice, the catalog and the order file. The approval slip has space for opinions on: 1) should the book be bought by the library; 2) should it be bought by a project; or 3) should it not be bought, and there is adequate room for reasons and signatures. If the book is already in the library or on order, this information is also placed on the approval slip that is placed in the book before it goes on the approval shelf. Even if the book is a duplicate, it is kept on the shelf the full two weeks.
- 4. The books are examined by interested scientists, and they record their opinions on the slips. We find that affirmative comments are usually noted, but if individuals are indifferent to the book, they generally do not indicate that they have examined it. Anyone

- who thinks the book is quite inappropriate for definite reasons is inclined to say so on the slip.
- 5. When the books are removed at the end of two weeks, the slips are carefully examined. The library decides, according to definite policies, whether each book should be purchased. If it is to be purchased, the approval slip is stapled to a book order form, to indicate the thinking of those who examined it. If it is not to be purchased, the approval slips are kept temporarily for a selection record. If one of the Boulder Laboratories sections or projects wishes a copy for its own use, the slip is used for authority to make a book order and to obtain another copy.
- 6. Individuals sometimes ask that certain books be obtained for the approval shelf. A memo is sent to the bookstore, and the patron is notified when the book arrives. His opinion must appear on the slip before the book is accepted or returned to the bookstore.
- 7. Often books that have been previously ordered by the library from pre-publication advertising appear on the approval shelf before the order is filled. If the order has been placed with the same supplier, the



The National Bureau of Standards

The approval book shelf and examination table in the Boulder Laboratories Library

book is retained when it comes off the approval shelf and accepted against the purchase order.

This system has been in operation for a year and a half, and only one book has been lost from the shelf. This loss is minor in comparison with the bookstore's increased business and the library's savings through better selection and initial multiple purchases. Had the losses been more significant, the library would have needed a tighter control. The shelf is presently situated near a librarian's desk and away from the new book shelf or any other collection with which it could become confused. The dust jackets are retained on the books, and no ownership marks are used.

The library is pleased with the approval book system because it spends less money on books that are repetitious of material on hand, and the selection is done by experts, namely our scientific staff. They do it because they enjoy seeing the current publications, in a convenient place, with all unselected items removed each fortnight. Different opinions of the value of certain titles occur frequently, and humorous or heated exchanges take place through the channels of the approval slips.

MRS. VICTORIA S. BARKER, Librarian
Boulder Laboratories Library
National Bureau of Standards
Boulder, Colorado

Association News

Staff Appointment

On September 18 Fannie Simon was appointed Assistant to Executive Secretary on a temporary basis until March 1962. Miss Simon was for many years the librarian at *McCall's* and since her retirement in 1958 has organized a library for the Council on Economic and Cultural Affairs and served on the staff of the American Bible Society in New York City. She has assumed responsibility for the Placement Service, general supervision of the Addressograph Section and most other duties of the position.

SLA Professional Award and Hall of Fame

These awards are made annually, and the recipients are selected from nominations made by Chapters, Divisions and individual SLA members.

The Professional Award is given to an individual (or group), not necessarily a member of the Special Libraries Association, in recognition of notable professional achievement in, or outstanding contribution to, the field of special librarianship. It is presented at the time appropriate to the contribution.

The HALL OF FAME AWARD is given to a past or present member of the Special Libraries Association who has either made an outstanding contribution to the growth or development of the Association or who has

given an extended or sustained period of service to the Association. This award is presented near the close of, or after the completion of, an active professional career.

Since the Award Committee's determination is based on the information available for each nominee, it is essential that detailed information be provided for each nominee and the contribution made by the nominee. A guide for submitting information has been sent to Chapter Presidents and Division Chairmen, and additional copies of this guide may be obtained from Association Headquarters. A nominee previously entered may be resubmitted.

Nominations for the awards should be sent to the Chairman of the SLA Professional Awards and Hall of Fame Committee, before January 31, 1962:

Dr. Burton W. Adkinson, Head Office of Science Information Service National Science Foundation Washington 25, D. C.

NSF Grant for IFLA and FID Meetings

The National Science Foundation awarded Eugene B. Jackson a traveling grant to attend meetings of International Federation of Library Associations and Federation Internationale de Documentation for SLA. The 27th Conference of FID was held in Edin-

burgh, September 3-7. The 27th IFLA Council took place in London, September 8-14. At the IFLA meeting, Mr. Jackson presented the Annual Report of the Special Libraries Association as its 1961-62 President. Reports on both meetings are scheduled for the November issue of the journal.

Roster Available

The Official Directory of Personnel, which lists names and addresses of the Executive Board, Advisory Council, Association Committees, Special Representatives and principal Chapter and Division officers and names Association Headquarters and other staff members, may now be purchased for \$1.50. Executive Board and Advisory Council members were sent copies. Requests should be sent to SLA Headquarters.

New Recruitment Materials

The New York Chapter has prepared Data Sheets on Special Librarianship describing special library work in advertising and public relations; biological sciences; business and finance; fine and applied arts; gas and petroleum industry; insurance; publishing and newspapers; and science and technology. Details on location, educational requirements and salary ranges are also given. Copies may

be obtained from SLA Headquarters. One to 25 copies of the complete set or 25 copies of one title are available gratis. Additional sets are 10ϕ ; single titles are 1ϕ .

Convention Items

Doris Lanctot, Registration Chairman at the San Francisco Convention, has reported that the final registration figure for members, guests, exhibitors and nonmembers totaled 1,178.

The dates and location for the 1968 Convention in Los Angeles have now been determined. The Convention will be held at the Statler-Hilton Hotel, June 2-7, 1968.

"Special Libraries" on Microfilm

The Executive Board has approved a request from University Microfilms, Inc. for permission to provide a miniature or reduced edition of *Special Libraries*. This edition will appear at the end of the volume year and will be sold only to subscribers to the paper edition of the journal. The Board also granted permission to University Microfilms, Inc. to reproduce miniature editions of earlier volumes of *Special Libraries*. These would be sold to any purchaser. In all cases, the Association will receive a ten per cent royalty of the invoiced sales price of each copy sold.

SLA Sustaining Members

BOEING COMPANY, Seattle, Washington

EDITOR'S NOTE: This, and the 113 Sustaining Members listed in previous 1961 issues of Special Libraries, includes all applications received through September 27, 1961.

Coming Events

The AMERICAN DOCUMENTATION INSTITUTE ANNUAL CONVENTION will be held November 5-8, 1961 at the Hotel Somerset, Boston and Kresge Auditorium, Massachusetts Institute of Technology. A State of the Art Symposium, sponsored by the National Science Foundation, and specialist sessions on advanced retrieval theory, machine printout of non-standard characters and documentation for professional societies will be held. For information write P. D. Vachon, Literature Physicist, Melpar, Inc., Applied

Science Division, 11 Galen Street, Watertown 72, Massachusetts.

The CLASSIFICATION RESEARCH STUDY GROUP will meet in Boston on November 5, 1961, the first day of the American Documentation Institute meeting. Mrs. Mary P. Veilleux, Central Intelligence Agency, will present a paper on the permuted title word indexing project initiated in 1952 as a subsystem of the Agency's integrated information processing and retrieval system. The meeting is open to all.

OCTOBER 1961

To Teach or Not To Teach—

More Comments on the Boston Course for Beginning Librarians

The letters which commented favorably on Boston Sci-Tech's series of "lecture-discussion evenings for beginning librarians" forcefully expressed most of the points this Committee would make in any rebuttal. However, for those who appear to be troubled that this experiment will injure the professional standards of special librarians, it should be emphasized that there was never any implication that those attending these lectures would thereby be considered trained, or professional, librarians. Nor do we have any evidence that their companies would so consider them.

Readers may be interested to know that as a result of this "introduction to technical library methods and use" one person entered library school and will receive her Master's degree this summer, and that the account in *Special Libraries* brought several requests for a repetition of the course (which will probably be given in the spring of '62).

We are grateful for the idea implied in a few letters that there might better be a course especially designed for library assistants given under the auspices of an educational institution. The Committee intends to investigate such possibilities in the Boston area. Meanwhile, we are helping these untrained "librarians" not only as self-protection against the individual instruction being given, of sheer necessity, by professional librarians in their daily contacts, but also as a recognition of the current shortage of librarians. Of course it is preferable to have librarians of the area be graduates of library schools, but management cannot obtain and cannot wait for properly qualified personnel.

HANNA FRIEDENSTEIN
DOROTHY HART
NATALIE NICHOLSON
MARGARET A. FIRTH, Chairman
Education Committee on a Training Course
for Beginning Librarians
Science-Technology Group, Boston Chapter

Let me quiet the fears of anyone who thinks that the participants in the Boston Sci-Tech program feel that they are professionals as a result of "those easy(?) lessons." Maybe this article is misleading, because it calls the participants "librarians"—trainees might have been a better word. The purpose of the course was carefully explained and decided upon at Sci-Tech meetings and in

EDITOR'S NOTE: These "Letters to the Editor" refer to a discussion that appeared in the July-August 1961 Special Libraries, p. 300-307.

Committee by professional librarians. Attendance was carefully screened and had any person who met SLA's standards applied, he or she would have been questioned.

Three on my staff attended and I am sure that not one of them feels that she is therefore qualified to be a librarian. As a result of this program these "clerks" work with more confidence, more interest in library work and a better appreciation of their own and other libraries. Most important of all, it made them realize how little they know and furthered their eagerness to learn. They have since taken "subject" courses, but they cannot advance their education in the library science, because there is no undergraduate program given in the evening.

The present hit and miss production of librarians, some through experience, some through education and experience and some through education only, tends to discourage the recognition of standards. I think the education of librarians needs careful study. It should be possible in educational areas, such as Boston, to get various levels of training in library science as in any other science. The level of technician would cover nonprofessional duties. College work would cover professional duties. A B.S. program would give fundamentals, an M.S. would expand experience and knowledge, and a Ph.D. would show creative ability. Such a program and such standards industry could and would understand. Very few schools have such programs, yet the schools will say there is insufficient demand for such training. This is probably true, because almost every library has either a formal or informal on-the-job training program of necessity.

Therefore, education in library science is a vicious circle. The Sci-Tech program did a lot to relieve the librarians of this training program. It did more good than harm, and I for one hope that it will continue.

ALICE G. ANDERSON, Librarian Equipment Division, Raytheon Company Wayland, Massachusetts

In Margaret Cressaty's letter on the Boston Sci-Tech Group's Course for Beginning Librarians, she refers to the Rio Grande Chapter. She says, "from the discussion at the constitutional revision meeting at San Francisco, it is obvious that the Rio Grande Chapter has an informal program that this Chapter hopes will rub off on nonprofessional librarians. Before others are tempted to pursue such a course, the hazards should be surveyed." The Rio Grande Chapter does encourage nonprofessionals to attend chapter meetings. They not only benefit from the talks and panel discussions at meetings and from visits to other special libraries, but they also contribute much to the chapter's programs and projects. One of our chapter members, a nonprofessional, but an active member of SLA, was Chairman of our Business Information Committee. Rio Grande Chapter shared the H. W. Wilson Award for the program carried out by this committee.

One industrial organization has consistently employed a nonprofessional to run its library, contrary to the advice of our Chapter Consultant Officer. Two persons have left this position to attend library school. Both realized that they were inadequately prepared for the job, and both were encouraged by members of the Chapter to get professional training.

The University of New Mexico offers upper division courses leading to a minor in library science. Sandia Corporation and three other organizations encourage their nonprofessional people, who are qualified academically, to take the courses.

Rio Grande Chapter believes in training nonprofessionals by whatever means available and encouraging them to attend library school whenever possible. Since the shortage of well-trained nonprofessionals is almost as acute as that of professional librarians, it is to our advantage to make every educational effort possible and also to make a place in the Chapter for nonprofessionals working in special libraries.

It is to our advantage to have nonprofessionals in the Chapter when we can provide them with educational opportunities and at the same time encourage them to take professional training. It is to our advantage, also, to make a place in Special Libraries Association for library administrators, documentalists and information retrieval specialists. These are the people whose help we need in solving the information retrieval problem, which is growing more and more acute, especially in science and technology.

WILLIAM H. RICHARDSON, Reference Librarian Sandia Corporation, Sandia Base Albuquerque, New Mexico

The decision to publish Natalie Nicholson's article on the Boston Sci-Tech Group's Course for Beginning Librarians was wise indeed, because it brings into the open a fundamental question which should be discussed at length and without inhibition. This question is whether special librarianship (or, for that matter, any librarianship) is a profession. If it is not, then the course offered is a fine thing; if it is, then it is a disgrace because no profession worthy of the name would tolerate it for a minute.

If the concept of a profession means anything at all, it means an occupation which requires specialized academic training. The group which offers the course in question is helping to pin the label 'librarian' on individuals without regard for any such training. There is nothing in Miss Nicholson's article to indicate that this group is the least bit concerned with the educational qualifications of the people taking the course.

Jean is "bright, eager, company-oriented, but not very knowledgeable in the ways of libraries." In other words, she does not know anything about librarianship, but she has been placed in charge of a library anyway-with the title of "librarian," no doubt. Is she at least an expert in the subject field with which her library is concerned? We are not told about that, and the chances are she is not or something would have been said about it. A good guess is that she has a high school diploma. No matter how intelligent or enthusiastic Jean may be, is there justification for encouraging her employers to bestow the title of "librarian" on an individual who has no qualifications for it by offering her an "Arthur Murray-teach-you-librarianship-in-a-hurry" course?

The answer is that there is none, and no amount of rationalization or sophistry can get around the basic fact that this sort of thing inevitably creates the impression that librarianship can be learned in a casual and informal manner and requires no special preparation. If librarians themselves, in the name of their professional association, embark on a program to help unqualified people "gain confidence" in a profession for which they have no training, then how can we expect the general public to have any respect for us? Nor is this simply a matter of status; a bona fide profession has a responsibility to the public for safeguarding standards in that profession. Are we meeting our responsibility to that public when we help to launch the career of a "librarian" after a total of four or six sessions of a "lecture-discussion" series? What other profession is there that engages in this sort of quackery?

It does no good to argue that untrained people would be appointed to positions carrying the title of "librarian" even if we did not approve. We do not have to encourage this practice. By helping to water down the profession in this way, we make it constantly harder to convince good people to get the proper training for professional library work, and we thus worsen the shortage of qualified librarians.

In her comments Elizabeth Owens approves of the course on the grounds that "it is only a practical measure to help a current situation." She says "the remedy lies in education and recruitment." These statements directly contradict each other, because we cannot educate management to the fact that librarianship requires specialized training if, at the same time, we aid and abet them in their practice of appointing just anybody to head their libraries. Nor can we recruit the best candidates into a profession which, if we continue

on this path, is bound to get the reputation of needing no training of any kind—just enthusiasm.

Sylvia Nicholson approves of the program, because she herself was appointed a librarian when she was not a "professional," to use her word. She then changes the picture entirely by stating that she is a graduate of the University of Wisconsin and already knew reference and cataloging as a result of taking evening courses at the University. She further confuses the issue by stating, "many professional people study for advanced degrees while working. Why not librarians?" The Boston course is not an advanced degree program, so this has nothing to do with the case.

Robert Havlik, in his comments, avoids the basic issue by talking about subject-trained people who need the rudiments of librarianship. There is nothing in Miss Nicholson's article to indicate that the Boston program is intended exclusively for subject-trained people who have not had library training. There is no evidence that there are any prerequisites for the course at all. If there are, she certainly did not make that clear.

Elizabeth Ferguson amazes me with her remark that "we should be thankful that there are more new libraries," even though untrained people are holding librarian positions. Is this striving for quantity without regard for standards the mark of a profession?

To conclude, bona fide professions have ordinarily sponsored two kinds of courses-refresher courses for the professionally-trained people and technician-type courses on a nonprofessional level, designed to relieve the professional people of routine duties. The course sponsored by the Boston Sci-Tech Group is neither. It encourages nonprofessional people to attempt professional library work, and thus works directly counter to the efforts of SLA to establish professional standards. Since this is being done in the name of SLA, Margaret Cressaty is entirely right in her suggestion that the Association establish criteria for courses offered in its name. I would suggest further that the Association take a definite stand against courses designed to make a librarian of a bright and eager Jack or Jean in six easy lessons.

SAMUEL SASS, Librarian The William Stanley Library General Electric Company, Pittsfield, Massachusetts

I have just read Natalie Nicholson's article about the Boston Sci-Tech course for beginning librarians. The comments following the article were of great interest. Harold Lancour and Elizabeth Ferguson have brought out points that seem most important, namely, that educational efforts are a boon to the individual as well as the profession, even though these efforts may not meet the highest standards of perfection.

I would like to add some comments based on my experience as one of the students in the Sci-Tech group. I had consented to set up and run a small library for a new company in Cambridge. There was a small collection of reports there, previously catalogued by a part-time worker. My previous experience consisted of five years of subject classifying and reference work in a large newspaper library. With a bachelor's degree in physics I felt I could handle the technical aspects of the job. This new library needed systems for everything from acquisitions through circulation. After the first few months, I began to see the use of the library increasing so much, that better systems were imperative. At this point I received notice of the Sci-Tech course. I knew of the courses at Simmons College, but was not then in a financial position to take advantage of them.

The Sci-Tech lectures gave me the opportunity to learn how other technical libraries were set up. They also provided a perspective and gave me more confidence in discerning the relative importance of the various problems that one encounters in company libraries. (At this company, the management knew little of library services, possible or actual and hence tended to underestimate their value.) The question periods following the lectures allowed a further useful exchange of ideas. Through my contact with other members of SLA, I realized I could qualify to join the organization.

Although I am no longer employed by that company, they recognized, before I left, that the library was a full-time job. (I had been hired on a basis of four hours for maintaining the library, and four hours doing other work in the company.) The girl who replaced me now has an assistant. I hope some day to obtain further library education

I did not fool myself about the nature of the course, but I do think that it impressed the company. It made them realize that a community of librarians existed and that most other companies in the area had full-time librarians. It also showed them that I was improving myself in order to help them, especially since I paid for the course myself.

I would like to make a few suggestions regarding library courses. These may be already in effect, but I am offering them for what they are worth. Since the big need for library services is in the technical field, could there be more training in the specific scientific areas? Has cooperative experience as part of the course ever been tried? Each student would work for six weeks in a special library, being paid a modest wage by the library. The Radcliffe Management Training Program includes such field experience. It would give the student a better background for the course work, familiarize him with one type of special library and help the library which is probably understaffed.

MRS. JEAN E. BRITTON, Bibliographer Massachusetts Institute of Technology Lincoln Laboratory, Lexington, Massachusetts

Have You Heard...

NSF Activities

With the aid of a \$197,000 National Science Foundation grant, a 20 per cent expansion for 1961 is planned by Biological Abstracts, Inc., Philadelphia, Pennsylvania, with 100,000 abstracts planned for 1962. The expansion of *Biological Abstracts* will help it keep pace with the growth in the volume of published research papers in the biological sciences.

A study of chemical notation systems will be undertaken by the National Academy of Sciences—National Research Council with Foundation support. The capabilities and inadequacies of existing notation and coding systems for chemical structures will be considered, together with the uses of the various systems and problems encountered in their use.

The Chemical Abstracts Service of the American Chemical Society will carry out the second year, with Foundation assistance, of a project designed to provide specialized types of chemical information searches. Machine techniques are being employed to assemble data from *Chemical Abstracts* to permit such services as answers to chemists' inquiries and specialized summary publications.

Scientific and technical serial publications of the world will be the subject of a study to be conducted by the Science and Technology Division of the Library of Congress through support from the National Science Foundation. The study has two objectives: a compilation of a bibliography of sources on scientific and technical serials and, based on a study of these sources, a count of the current serial titles of the world by country and by subject. The bibliography and the census will serve the purpose of bringing under bibliographical control a body of literature essential to librarians in planning acquisitional and informational services.

At the present time, the World List of Scientific Periodicals, published in 1952, is the basis for estimates of the number of scientific serials currently being published

throughout the world. The distinction between the present study and such publications as the *List* and the 1956-57 Unesco study, *Statistics of Newspapers and Other Periodicals*, is that the present study will serve as a source both for information concerning the most recently published bibliographies of scientific serials and for a verifiable statistical count based on these sources.

This one-year study will be under the direction of Charles M. Gottschalk, Head of the Reference Section in the Science and Technology Division. Preliminary results are expected to be published in January.

The Institute of the Aerospace Sciences (IAS) received a grant (for approximately one year) to prepare a comprehensive annual subject index to the world literature of aerospace technology. Covering over 10,000 documents of scientific and research significance, the index will expedite the flow of urgently needed research information to scientists and engineers working in the United States space and missile programs and in the design and production of advanced aircraft. The index will be issued in book form early in 1962 and will serve as a key to the publications abstracted this year in *International Aerospace Abstracts*, a monthly IAS service.

Information Retrieval System

Information Retrieval Corporation of Washington, D. C. has signed a contract for over \$1,500,000 for the manufacture of an information retrieval system by the Maryland Division of Litton Systems, Inc., College Park, Maryland, Information for Industry, Inc. of Washington, holding controlling interest in IRC, announced. The equipment is desk-sized, electronically operated and designed to store, locate and reproduce printed information at a lower cost than retrieval systems performing similar functions. The system will store about 500,000 microfilm pages in one cartridge and will retrieve desired page or item in about 20 seconds.

Translation System Developed

The development of a test production system to translate one language into another by means of an electronic computer at the rate of 60,000 words an hour was announced by Machine Translation Inc., Washington, D. C. At a press demonstration of the system, "Unified Transfer System," an article from the Russian newspaper Pravda, was translated into English at 60,000 words an hour. Mrs. Ariadne Lukjanow, president of Machine Translation and inventor and developer of the system, stated that UTS has been designed for use on general purpose computers and is suitable for translation of any language into another as long as one language is an Indo-European tongue. Full production of the system will be ready within eight months; at that time, the translation speed will be increased to over 150,-000 words an hour using the IBM 7090 computer. Using the IBM's new STRETCH computer, the system may be able to translate one million words an hour. For additional information, contact Jay Stackig, S. G. Stackig Inc., 2101 S Street, N. W., Washington, D. C.

Mechanical Translation in Chemistry

A significant development in mechanical translation uniting the electronic computer and modern structural linguistics was announced by Dr. Eugene Garfield, director of the Institute for Scientific Information, Philadelphia, Pennsylvania. An algorithm using a newly constructed grammar of chemical nomenclature, developed by Dr. Garfield, is believed to have produced the first successful computer translation of chemical names directly to molecular formulas. Molecular formulas of several hundred randomly selected chemicals were calculated successively on a Univac I computer, verifying the linguistic analyses and the logic of the program. This new recognition grammar enables the computer to understand the chemical names fed to it by a typist. In proving the method, a human translator simulated the operations performed by the computer. Based on the linguistic analyses, it is concluded that the procedure can also be used manually by chemists and to train non-chemist clerks, librarians, and indexers to calculate a molecular formula from a chemical name.

A book, published in September, An Algorithm for Translating Chemical Names to Molecular Formulas, reports in detail the linguistic research and how the electronic computer was instructed to calculate such exotic chemicals as 2, 3, 4-tris[3-bis(dibutylamino) propylamino] pentadiene-1-4.

Law Index Changes Hands

The H. W. Wilson Company has bought Index to Legal Periodicals, formerly a publication of the American Association of Law Libraries, as a result of a vote taken at the AALL meeting in Boston on June 23. The company has been acting as printer, publisher and business manager of the Index for over 35 years. All future issues and volumes will carry the statement that the Index is published in cooperation with the Association. The first issue to appear under the new ownership is the October issue, vol. 55, no. 1. The Index will continue to be published monthly, excluding September, with bound annual and 3-year cumulations.

UCLA Receives Valuable Library

Dr. Elmer Belt, clinical professor of surgery at the UCLA Medical Center, has given to UCLA the Elmer Belt Library of Vinciana, one of the greatest research art collections in the world on Leonardo da Vinci. The Library contains about 15,000 books, articles and items, all cataloged according to the Library of Congress system. There are many 15th and 16th century source books which are documented as Leonardo's sources of learning and, according to Dean Lawrence Clark Powell, head librarian at UCLA, the greatest treasures of the library are 56 books printed before 1501 and about 175 books printed before 1650. The Belt Library will be housed in a specially-constructed section of the UCLA Art Library in the projected new Art Building planned for completion in 1964.

GE Computer at Western Reserve

Western Reserve University's School of Library Science, through the Center for Docu-

mentation and Communication Research and in cooperation with the General Electric Company and the American Society for Metals, has recently installed a new GE 225 all-purpose computer at the Documentation Center on the campus. The General Electric information searching system, GE 225, consists of a transistorized general purpose computer with an 8,192-word magnetic core storage memory and special programing features for conducting literature searches. It is equipped with a dual magnetic tape handler and tape controller, a high-speed punched card input and an electric typewriter output. It is the first of its type to be installed anywhere in the world for purposes of literature searching.

Members in the News

DR. LESTER ASHEIM has been appointed Director of the American Library Association's International Relations Office. Dr. Asheim's five-year appointment is the longest of the three that have been made since the office was established in 1956. His appointment became effective October 1.

DR. JESSE H. SHERA, Dean of the School of Library Science, Western Reserve University, and Director of Western Reserve's Center for Documentation, is the author of a new column, "Without Reserve," appearing in the Wilson Library Bulletin as of September 1961. The column contains professional comment and opinion.

MARIE TASHIMA has been awarded a Fulbright grant to study special librarianship and documentation at University College in London. Miss Tashima will also conduct research in documentation.

LBI Scholarship Announced

The Library Binding Institute offers a scholarship to encourage competent young people to enter the field of librarianship. Applications may be obtained from the Institute, 10 State Street, Boston 9, Massachusetts, after November 1, 1961 and must be returned by February 1, 1962. Prospective applicants may obtain further information by writing the Institute.



New Reader-Printer

The Recordak Corporation, New York, has a microfilm reader, The Recordak Reader-Printer, that makes a paper copy of any document on microfilm through the use of a push-button. This unit operates with 16 or 35mm roll film and with microfilm records unitized in aperture cards or card-size film jackets. Printing operation is automatic after print button is pressed. Complete processing of print takes approximately 45 seconds, but reader can be used for viewing after 25 seconds. Cost per print, including chemicals, is approximately 9 cents. Print size is $8\frac{1}{2} \times 11$ inches with an image area of $7 \times 9\frac{1}{4}$ inches.

ALA Library of the Future

The American Library Association plans to have an exhibit, Library of the Future, at the 1962 Seattle World's Fair. It is to feature "the best of today's libraries, the best in library service that can be expected in the immediate future, and the best projection of library service in the next century." Tools, some of which are in the developmental stage, including electronic translating machines, closed circuit television for retrieval of information from distant research libraries, and other electronic computer types of equipment which will procure reading lists suited to the interests, needs and educational level of the individual will be displayed and activated.

Off the Press . . .

Book Reviews

A GUIDE TO AMERICAN TRADE CATALOGS, 1744-1900. Lawrence B. Romaine. New York: R. R. Bowker, 1960. xxiii, 422 p. \$15. (L.C. 60-16893)

Trade catalogs were once referred to by this reviewer as "paradoxical" publications; they are a prime headache to the systematic collector, yet their information can be found nowhere else. They constitute not only a listing of currently available merchandise, in time, they become a unique record of business and manufacturing history. Mr. Romaine's Guide is the first bibliographic compilation systematically citing these catalogs as entities in their own right.

The compiler is a Middleboro, Massachusetts, dealer who specializes in advertising materialscatalogs, programs, leaflets and similar Americana. His purpose has been to set down a description of some of these ephemera and to locate copies. Between seven and eight thousand items have been selected; the compiler's own sales records, and those of other dealers, constituted a primary working list, to which additions were made from records in over 200 libraries, museums, historical societies and private collections. The writer reviews in the introduction the development of trade catalogs in America, the quality of their production and growth in use. He deplores the disdain commonly felt and notes that, though large batches are known to exist here and there, little if any provision has been allotted for proper housing and listing. His detailed scanning of Evans' American Bibliography disclosed a number of items published between 1639 and 1800 that he feels qualify as trade catalogs.

Each of the book's 62 chapters groups more or less related products together, the entries therein being alphabetical by company; a company name index lists about 4,500 organizations. Completeness of description for individual catalogs varies according to the sources utilized; pagination, illustrations and size are usually given, and frequently comment is inserted as to special reference value. Locations are provided in over 160 collections. A detailed subject index would have been helpful though difficult to make; the compiler's repeated pleas to check all possible sections are well-advised. Libraries that checked the preliminary lists know the nearly insuperable problem of variant and changing company names; one regrets that the added entry "Trade catalog" seems never to have been devised for card catalogs. Many holdings were undoubtedly and perforcedly missed. The companies represented, too, are but a fraction of those which have appeared and been lost from the American business scene.

Yet this is a unique record, and the compiler

has performed yeoman service in its making. It is a collector's record, basically, with chatty (and informative) prologue and epilogue to each chapter. Persons familiar with Romaine lists will recognize the Yankee comments popping up, i.e., on N. W. Ayer, under "Printer's Equipment": "This does not fit here, but where would you put it?" Company historians may find but two or three early publications of their subject organization—but who knows how rare they may be? A wealth of primary documentation is afforded to industrial historians as well as a new source of illustrative material of the kind hardest to find; locations are an added boon. The topical range is extremely broad, from "Agricultural Implements and Machinery" to "Windmills."

Mr. Romaine's work will begin to fill a hurting gap in our bibliographic record. Admittedly, it is only a selective and incomplete start, yet it calls attention entertainingly to a valuable resource area and to the need for assistance in and attention to its preservation.

WILLIAM S. BUDINGTON, Associate Librarian The John Crerar Library, Chicago, Illinois

THE ORIGINS OF THE AMERICAN LIBRARY SCHOOL. Carl M. White. New York: Scarecrow Press, 1961. 211 p. \$5. (L.C. 61-8717)

Training for librarianship, as it developed in the United States from 1883 to 1923, is the subject of this briskly written little book. In brief, it covers: the rise of technical education in the United States and its influence on library school structure; European and American ideas of librarianship and library education and their contributions to Melvil Dewey's concepts; the inception and subsequent development of Dewey's School of Library Economy; the emergence of other library schools; and the status of summer schools and apprentice or training classes during this period. Although no principles of library education were formally set forth at the time, Mr. White concludes with a list of 10 principles that he says "functioned as unwritten standards which directed and controlled professional education for librarianship.

Mr. White notes that the history of individual library schools is well documented, hence this book is intended to explore the general social setting and the factors in the library world which conditioned their origin and development. The School of Library Economy was established in 1887 at Columbia University, moved in 1889 to the New York State Library at Albany and returned in 1926 to Columbia as the School of Library Service. It is, understandably, the prototype and main example used throughout the book. Three additional

schools began before 1900, and ten more by 1921. These schools and their programs are reviewed and compared mainly in the chapter "Branches of the Family Tree."

This book is illuminating in several ways. Few librarians know how technical education developed or realize its influence as the general framework within which the library schools grew. The concepts of librarianship reviewed here, and the picture of the times and the people so skillfully set forth by Mr. White, are most impressive. This book reveals that some continuing dilemmas have been recognized since the early years of formal education and imparts an understanding of our precedents which sets many current problems in perspective. The history challenges us to match the masterful responses to the needs of the 1880's with equally bold, creative and well-founded solutions for today.

Just one example is the case of education for special kinds of libraries. The book records the emergence of this problem, the ensuing trials and errors of the period and the resulting viewpoints formulated by the schools and the special librarians, which were well fixed by 1917. Mr. White remarks about the conflicting opinions stated in that year, "the pot gets nowhere by calling the kettle black." The classic positions do not seem to have changed since, thus we have got "nowhere" in over 30 years. Will our era produce the clearer understanding, the wisdom and the breadth of vision needed to remove the causes of such an impasse?

Shirley F. Harper, Librarian

The A. G. Bush Library, University of Chicago Chicago, Illinois

SCIENTISTS' APPROACHES TO INFORMATION (ACRL Monograph, Number 24). *Melvin J. Voigt.* Chicago: American Library Association, 1961. vi, 81 p. pap. \$2.50. (L.C. 61-10543)

Melvin Voigt feels that in much of the burgeoning literature dealing with automatic storage and retrieval of the scientific literature, the needs of the practising scientist and the manner in which he approaches and finds his information has been played down or overlooked. The purpose of his study is therefore, 1) to determine what the scientists' approach is; 2) to relate these approaches to the purposes for which the information is sought; and 3) to determine the specific secondary sources on which scientists most depend in certain selected fields.

The study was carried out by means of interviews with scientists in the Scandinavian countries, on the assumption that Scandinavian scientists handle English, French and German with competence (as well as their own languages) and therefore will select their bibliographical sources on the basis of quality, rather than on language bias. Fields covered were chemistry, biological sciences, and physics and electrical engineering.

The technique of interviewing was a leisurely

one in which the scientist was permitted to talk about his research and was then led into a discussion of the literature used in his work. Voigt set up a pattern of information which he hoped to obtain, dealing with the background of the scientist himself: his language competence, libraries used, the various types of printed materials consulted in his work, his personal and professional contacts—time spent in reading current and retrospective literature.

The impressions and the facts which the author obtained from his interviews constitute an invaluable and extremely interesting contribution to the literature on this subject. The scientists have helped the author evaluate all types of bibliographic tools in the sciences: for example, the monographs, the general treatises, the handbooks, encyclopedias, tables of data, the indexes and abstracts, the annual reviews and the special bibliographies. The evaluation has been in terms of their usefulness for each of Voigt's theoretical "three approaches to information," which he labels the "Current Approach," the "Everyday Approach" and the "Exhaustive Approach."

Many science librarians will find here confirmation of one of their own observations—that most research scientists depend to a large extent upon personal contacts with people in their own fields to keep abreast of new developments. This has been traditionally the case among scientists working in frontier areas where the new knowledge is relatively limited and where the number of people working in it are relatively small. One might question whether this approach will continue to be valid in the face of the present enormous proliferation of the literature (in which the literature of chemistry, for instance, is doubling every 8.1 years) and in view of the isolation of significant sections of the scientific population brought about by the emergence of important unfamiliar languages and the present ideological conflicts in the world. The author has little to say of the Russian Referativnyi Zhurnal, in all its 15 broad subject areas, and this is of course explained by the fact that his Scandinavian scientists did not use this Russian bibliographical apparatus. It is significant that the Russians are attempting to achieve with the Referativnyi, and similar tools aimed at particular segments of science, technology and industry, what the Danish staff members did when they spent much time going from industry to industry to learn what the problems were in their own and in related fields.

While the average scientist may wish to have nothing to do with the computer, it should not be overlooked that such machines make possible the new Chemical Titles and Chemical Patents, as well as the Thermophysical Properties published by the Purdue Center. It may be in this area that the computer will prove most useful, producing as an end product, not a tape, but a traditional printed bibliographical tool.

Chemical Abstracts is initiating this year a separate service for the field of biological chemistry—a beginning which may help meet the repeated criticisms voiced by Mr. Voigt's scientists of the shortcomings of Chemical Abstracts.

The Scientists' Approaches to Information should be carefully read by every librarian working in this subject area.

JOSEPH C. SHIPMAN, Librarian Linda Hall Library Kansas City, Missouri

Bibliography and Documentation

An International Advisory Committee on Bibliography, Documentation and Terminology will be set up in place of the International Advisory Committee on Documentation in the Pure and Applied Sciences. The Committee will advise the Director-General on bibliography, documentation and terminology in all subject fields of interest to Unesco. A bimonthly bulletin, Bibliography, Documentation and Terminology, will replace the Bibliographical Newsletter and Monthly Bulletin on Scientific Documentation and Terminology. The bulletin will appear in English, French, Russian and Spanish. The network of national bibliographical groups established to improve bibliographical activities in their respective countries and the network of 75 national corresponding members will be enlarged. In view of the growing importance attached to bibliographical and documentation work and the necessity of finding trained personnel for this work, the FID and IFLA, under a contract with Unesco, will make a comparative study of the training and status of research librarians and documentalists.

Copyright Revisions Summarized

A 19-page pamphlet, Recommended Revisions of the U. S. Copyright Law of Special Interest to Libraries, a summary of selected recommendations of the Copyright Office, condensed from Report of the Register of Copyrights on the General Revision of the U. S. Copyright Law, submitted to Congress July 10, 1961, has been prepared by the Copyright Office, Library of Congress, Washington, D. C. for purposes of survey. The underlying theory of the Law is given, then the present law and recommended revisions. There are 26 proposed changes discussed here.

International Focus Continued

The Advertising Division of SLA continued its listing of international sources of information with International Focus United Kingdom of Great Britain and Northern Ireland, and International Focus France, The Netherlands and Germany. Published as a supplement to the Advertising Division Bulletin of January 1961, sources of reference in commercial, statistical, bibliographical and photographic areas are given. These listings are available for \$1 from Mrs. Catharine Lynch, Librarian,

American Broadcasting Company, 7 West 66th Street, New York 23. Checks should be made out to Advertising Division, SLA.

Design Engineers' Bibliography

McGraw-Hill Publishing Company has published The Engineer's Bookshelf, a bibliography of technical books for the design engineer, revised and expanded to include books published since January 1, 1959. Copies of this report are available for 50¢ by addressing Readers' Service Department, Product Engineering, 330 West 42nd Street, New York 36.

STL Literature Surveys and Translations

The Technical Library of Space Technology Laboratories, Inc. can now make available to outside organizations its unclassified literature surveys and translations. Classified material must be requested through cognizant agencies. For over two years the Advanced Research Group of the library has compiled these surveys at the request of members of STL's technical staff. They are, in most instances, in support of proposals or contracts and are, therefore, on subjects of current interest. Whenever possible, the information cited is abstracted. In several cases both classified and unclassified versions of the same survey have been published. The Foreign Literature Translation Group of the Library also has available a limited number of translations from the Russian. These are, for the most part, translations of current articles from Russian periodicals. This group has also reprinted a Russian-English/English-Russian Dictionary of Automatic Control. For an index to the surveys and translations available, contact Mrs. Margaret N. Sloane, Chief Librarian, Space Technology Laboratories, Inc., P. O. Box 95001, Los Angeles 45, California.

New Serials

BRITISH TECHNOLOGY INDEX: A Cumulative Index to British Technical Periodicals, is to be a monthly guide to latest developments in British technology. Listed alphabetically by subject, there will be a cumulated annual volume permitting monthly parts to be discarded. About 400 titles will be analysed. Publication is to begin in January 1962. The Index will be available from the Library Association, Chaucer House, Malet Place, London W.C. 1 for \$50.

CORROSION SCIENCE, to be published quarterly, is an international journal and will contain original papers, short notes and critical reviews on corrosion science. It is published by the Pergamon Press under the auspices of the Corrosion Science Society and the Centre Belge de l'Etude de la Corrosion with the assistance of an international editorial board. It is to contain 320 pages yearly; the annual subscription price will be \$20.

ECONOMIC GEOLOGY—U.S.S.R. is an international scientific research journal, published by Pergamon

Press, providing information on recent theoretical and practical investigations in the field of geology of metalliferous deposits in Russia. The journal will appear three times a year and each issue will contain selected translated papers from the Russian journal Geologlia Rudnkh Mestrorozhdenii. Publication will begin late in 1961. The subscription rate is \$60 yearly.

JOURNAL OF MEDICINAL AND PHARMACEUTICAL CHEMISTRY, under the sponsorship of the American Chemical Society, will begin publication January 1, 1962. Interscience Publishers, New York, will transfer ownership of their journal (vols. 1-4) and discontinue its publication after 1961. Subscriptions to the journal may be placed until December 31, 1961 with either Interscience or the American Chemical Society, 430 Park Avenue, and thereafter with the ACS. Subscription rates for 1962 will be \$10 to members and \$20 to nonmembers. Approximately 1,200 pages will be published in volume 5. Volumes 1 to 4 will be available at \$15 each from Interscience Publishers, Inc., 250 Fifth Avenue, New York 1.

RADIOCHEMISTRY, U.S.S.R., published bi-annually, is an international scientific research journal containing translated papers and abstracts from the Soviet journal, *Radiokhimiia*. The journal will include publications on a variety of physical and inorganic topics related to radiochemistry. The annual subscription price is \$40. It contains about 300 pages a year. The journal is a publication of Pergamon Press.

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ADMINISTRATION OF THE COLLEGE LIBRARY, 3rd ed. *Guy R. Lyle et al.* New York: H. W. Wilson Co., 1961. 437 p. \$7.

Organization, management, personnel, selection and acquisition, circulation. Supplementary reading lists. Extensively revised.

ANNUAL REPORT OF THE LIBRARIAN OF CONGRESS: For The Fiscal Year Ending June 30, 1960. Washington, D. C.: Library of Congress, 1961. xv, 156 p. \$2. (L. C. 6-6273*)

ARCHIVES AND RECORDS: WHAT ARE THEY? Purnendu Basu. New Delhi: National Archives of India, Ministry of Education, 1960. 34 p. pap. Apply.

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CLASSIFIED PATENT SEARCH FILES, A PROPOSED BASE FOR TECHNICAL INFORMATION CENTERS. Simon M. Newman. Washington, D. C.: Department of Commerce, U. S. Patent Office, 1961. Gratis.

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DIRECTORY OF SPECIAL LIBRARIES IN THE SOUTH-ERN TRANSVAAL. R. Musiker, ed. Johannesburg, South Africa: Library Association (Southern Transvaal Branch), 1960. iii, 11 p. pap.

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INTRODUCTION TO LIBRARY SCIENCE. Pierce Butler. Chicago: Phoenix Books, University of Chicago, 1961. vii, 118 p. pap. \$1.25.

Classic of modern library literature, long out-ofprint, reissued in paperbound form.

LIBRARY IMAGE: A Manual of Library Interpretation. Denver, Colorado: Public Relations Planner in cooperation with Montana State Library Extension Commission, 1960. 31 p. pap. \$1, single; 75¢, 2-10; 60¢, 10-99; 50¢, 100 or more.

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MAP COLLECTION IN A GENERAL LIBRARY: A Manual for Classification and Processing Procedures, 5th version. *Thomas R. Smith.* Lawrence: University of Kansas, 1961. 126 p. pap. apply.

For a specific library. Based on typical growth situation; includes extensive subject classification and introductory chapter giving background and rationale for procedures. Index, appendices.

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A collection of essays commenting on books and readers, most of which have appeared in the Wil-

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Soviet View of British Libraries: Report of a Visit. (Library Association Pamphlet no. 22) V. I. Sbunkov et al. Anthony Thompson, translator. London: Library Association, 1961. 32 p. pap. 75%.

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UNIVERSITY EXTRA-MURAL LIBRARIES. (Library Association Pamphlet no. 21) E. P. Pritchard. Lon-

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Bibliographic Tools

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Guide to technical papers on concrete technology which appeared in ACI Proceedings, 1905-29 and ACI Journal, 1929-59.

AERONAUTICS AND ASTRONAUTICS: An American Chronology of Science and Technology in the Exploration of Space, 1915-1960. Eugene M. Emme. Washington, D. C.: National Aeronautics and Space Administration, 1961. \$1.75. Available from the Government Printing Office.

Traces evolution of aeronautical and space sciences from 1915. Designed to 1) emphasize scientific research and engineering development, 2) demonstrate historic use of aircraft, rockets, balloons and spacecraft as tools of scientific research, 3) specialize upon United States efforts with inclusion of sufficient items on general historical events and foreign progress to retain an undistorted historical context, and illustrate practical exploitation of technological progress in aeronautics and astronautics. Subject and name index.

AEROSPACE MEDICINE AND BIOLOGY (Formerly: Aviation Medicine): An Annotated Bibliography, vol. 3, chiefly 1954 Literature. Arnold J. Jacobius et al. Washington, D. C.: Science and Technology Division, Library of Congress, 1960. v, 542 p. pap. \$6. (L. C. 56-60078) Order from Office of Technical Services, U.S. Department of Commerce, Washington 25, D. C.

Author and subject indexes. Supported by U.S. National Aeronautics & Space Administration, Washington, D. C., U. S. Advanced Research Projects Agency, Washington, D. C., Defence Research Board of Canada, Ottawa, Ontario.

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Describes nature and scope of American literary manuscripts in more than 250 American libraries. Compiled by a committee of the Modern Language Association's American literature group, under grant from Lilly Endowment, Inc., and others.

BIBLIOGRAPHY OF EASTERN ASIATIC BOTANY, supplement 1. Egbert H. Walker. Washington, D. C.: American Institute of Biological Sciences, 2000 P Street, N. W., 1960. xl, 552 p. \$18.50, individuals and industrials libraries; \$16.50, AIBS members and all other libraries.

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