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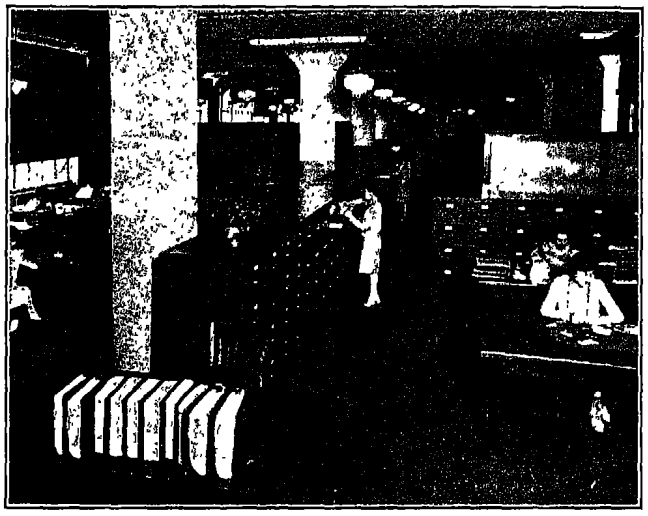

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The Future of Research

Research in Railroading

Inter-American Highway Research

Notes and Departments

Proceedings—Part III.

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Special Libraries

Vol. 20 SEPTEMBER, 1929 No. 7

A Glimpse Into the Future of Research, Based on the Present Activities of the National Bureau of Standards*

By Hugh G. Boutell, Chief, Information Section, Bureau of Standards

PRACTICALLY every scientific and technical book starts with a preface, in which among other things, the author explains why he is qualified to write on that particular subject. Perhaps he convinces his readers that he is justified in thus setting forth his views, and perhaps he does not. Doubtless the outcome of his effort on the pages with the Roman numerals depends to some extent on how much the reader himself knows about the subject.

Now, I feel that in speaking to such a group as this I must follow this time-honored practice of authors and first of all try to convince you that I have had sufficient contact with research to "look ahead" in it. Particularly, because at the Bureau of Standards I am not conducting research work myself, but am tolerated by the research men as a sort of liaison officer between them and the public.

In 1918 I came to the Bureau from the Baldwin Locomotive Works in Philadelphia, and early in the next year took charge of our information section. Here we receive visitors, answer general inquiries, prepare certain reports, including our monthly *Technical News Bulletin*, and do numerous other odd jobs. Each month the scientific and technical divisions prepare reports describing the progress of work in their laboratories. Part of our work is to read these reports and to use the information in telling the people of the country what the Bureau is doing. Since this work was taken over, 1100 of these reports have been read, marked, learned, and inwardly digested, in so far as possible. For some years I have watched a gradual but steady change take place in research as carried on at the Bureau of Standards.

More and more the general public has been coming into the picture. In 1919 the Bureau was still engaged almost entirely on war work. Our contacts were largely with the technical branches of the Army and Navy, and the monthly reports were taken up with tests of military equipment.

*Address before the Commercial-Technical Group, Special Libraries Association, May 18, 1929.

Since that time the picture presented by these reports has entirely changed. Out of these war time investigations have grown peace time studies of fundamental concern to the public at large.

The fundamental work of the Bureau is, as it always has been, that in connection with standards of measurement, but attention is now centered not on the testing of thousands of munitions gauges, but on the revolutionary developments which are taking place in connection with the basic standards, themselves. In the fall of 1927, the Director of the Bureau, Dr. George K. Burgess, as one of the American delegates to the International Conference on Weights and Measures, placed before the conference the recommendation that the world's standard of length be fixed in terms of light waves. This is a standard provided by nature, the value of which we know to one five-millionth of an inch. This recommendation was adopted, and takes the form of a statement expressing the relationship between the red light from cadmium and the international meter. In other words, we have broken away from an arbitrary material standard of length, which may at any time be damaged or destroyed, and have substituted for it an easily reproducible and unvarying natural standard. We have constructed secondary material standards in the form of steel scales, ruled directly from light waves with such precision that there was no measurable error in the finished scale. For certain kinds of work plane surfaces are necessary. Three quartz flats were made by one of the Bureau's experts, each one of which is so nearly a true plane that if its diameter of 11 inches were increased to 900 miles (about the distance from Washington to Chicago) no point on the surface would vary from the general level by more than one inch.

In 1918, the requirements of the military forces were always running ahead of our testing facilities. Now, industry is setting the pace for research. In the case of steam power, for instance, higher and higher pressures are being used. There is an urgent demand for data on the properties of high pressure steam. A long research program is in progress in co-operation with the American Society of Mechanical Engineers which will give with the highest precision all the information required by the designer of boilers and turbines.

A program for redetermining the values of the fundamental electrical units has been mapped out by the International Committee on Weights and Measures, and various phases of the work have been assigned to the different national laboratories. Eventually, the international electrical units will be placed on a thoroughly sound and practical basis, co-ordinating them with the mechanical units, and incorporating in their definition the experience of the past 30 years.

The use of very high potentials, (250,000 volts or over) is growing, and is making for increased efficiency in the distribution of electricity and consequently a lower cost per kilowatt-hour to the ultimate consumer. The Bureau is installing new equipment to take care of tests at these high voltages, but before long an entirely new high voltage laboratory will be necessary.

No matter what phase of the Bureau's work we consider, the increasing importance of research to the general public is evident. Everything connected with aeronautics has come into being as the result of research. The air was conquered only after long experiments by a few outstanding research workers. In all the details of the art facts are absolutely essential, because as in no other case, a guess may mean loss of life. Before the Aeronautics Branch of the Department of Commerce will license an engine for use in a commercial airplane, a sample engine must pass a definitely prescribed endurance test at the Bureau of Standards. This type testing of airplane engines is of unusual importance at the present time, because many people are rushing into the business of building engines, often without sufficient experience to turn out a safe job. The Bureau is helping to safeguard the public by separating the fit from the unfit. In addition, valuable facts are being gathered together on engine design, which will be of great service in the future.

The wonderful work that has been done recently in developing radio aids to air navigation is probably familiar

to many of you. A system employing a radio beacon with receiving set and indicating device on the airplane is in successful operation at two points on air mail routes. This system makes use of a directional signal from the beacon and a visual indicating device on the instrument board of the plane, which shows the pilot whether he is on or off the course, and if he is off, the amount and direction of the error.

Research has had its effect not only in these new industries, but in many of the older ones as well. In the fabrication of iron and steel, welding is playing an increasingly important part. The Bureau is at present installing the machinery in its new power plant and every joint in the high-pressure steam pipes, except the valves, was welded in place. Our engineering mechanics section has made many tests of the strength of welded joints in tanks and structural members. It may seem rather strange, but one of the most important contributions of welding to mankind has been in the reduction of noise The deafening racket of the portable riveter is almost a thing of the past.

The economical and safe use of building materials makes necessary a thorough knowledge of their properties, and this can only be gained through research. The Portland Cement Association is co-operating with the Bureau to find what Portland cement really is. We are measuring the temperatures and stresses set up inside a concrete structure after pouring. The latest work of this kind is now in progress on the new Arlington Memorial Bridge across the Potomac

The fire resistance of buildings has been studied by a special section. No longer are engineers and architects content to guess at what temperatures are developed when a building is burned. To fight fire intelligently we must know how hot it can be and how long it can last. These vital facts are determined by fires in small test structures which can be furnished to simulate an office, library, storeroom, oil house, or any other occupancy. Electric thermocouples measure the temperatures at every strategic point and stop watches record the duration. Last summer two old buildings about to be torn down in connection with the Government's building program were filled with waste lumber and burned to the ground. What happens when a typical non-fire resistive building (a type still common in all of our cities) is destroyed was recorded scientifically. Safes furnished by various manufacturers were filled with documents and placed at many points within the buildings. Their condition after the fire gave a good idea of the degree of protection these containers are likely to afford.

We are studying the problem of waste products of agriculture; how to convert them into something of value, and thus place the farmer in the same position as many progressive industries. Already valuable products are being made from materials previously thrown away or merely burned as fuel. The successful production of wall board from corn stalks in an experimental plant at Ames, Iowa, is a good example of what has been accomplished. Xylose, a valuable sugar, is being recovered on a semi-commercial scale from cotton-seed bran and peanut shells in a plant at Anniston, Alabama.

One of the most significant developments of recent years is the great interest shown by the smaller purchasers in the methods of buying adopted by the National Government; buying by specification. There is a growing disposition on the part of purchasers to get facts about goods offered for sale. They are anxious to adopt the research method, but obviously the Bureau can not test everything that is bought and sold. We are offering the certification and labeling plan as at least a partial solution. Under this plan manufacturers agree to label their products when they comply with certain of the Government's master specifications. Anyone desiring goods which meet the requirements of the Government can purchase from these manufacturers. If there is any doubt as to the quality, the purchaser can have a sample tested at any one of numerous laboratories, a list of which will be furnished on request to the Bureau. To date nearly 4,500 manufacturers have asked to be listed. Since the certification plan has been applied to 103 specifications, this means that there are about 42 willing-to-certify

manufacturers for each product. So far the plan has worked well, and is being taken up by buyers' organizations, women's clubs, and industrial purchasing officers.

Now, with this background of past and present developments, let us look into the future, and try to discover the direction in which research will lead.

First of all, what are the reasons for this change in the relation of the public to research? Is not the answer to be found in the fact that certain of the most characteristic products of today were developed through research? Without it we would have no automobiles, no aircraft, no radio, no movies, no mechanical refrigeration, no electric lamps, and so on through all the long list of modern necessities.

Is not the whole world passing through a period very like that which began a little over 300 years ago in science itself? For more than a thousand years scientific men had been content to accept the explanations of natural phenomena handed down to them from the classical writers. Bodies must fall with a speed proportional to their weight, because Aristotle said so. The earth must be the center of the universe around which revolved the seven planets, including the sun and moon, and the eighth sphere carrying the fixed stars. At last a few men appeared who had the hardihood to conduct experiments to find whether these long accepted statements were really based on facts. After Copernicus, Kepler, Galileo, and Newton the ancient structure in which philosophers had dwelt in comfort for centuries fell like a house of cards. Scientists became experimenters. They had to, or go out of business. However, this revolution in science affected but a small portion of mankind. The majority of people still believed that the earth was flat, and did not care very much whether bodies fell with equal speed or not, provided no heavy body fell on them. To this day, a few people still follow those who believed in philosophy without experiment, for it takes many, many years to affect any vital change, but the age of universal research is coming surely if slowly.

This is noticeable in so many different ways. Children, today, are no longer satisfied with the explanation that things are "just so." They must know the reason. If you can not explain the matter, as is too often the case, they want to know where they can loop up the subject and read about it. Boys and girls ten years old are using textbooks and encyclopedias that a short time ago would have been considered proper reference works for high school or college students. You would be surprised at the questions asked by young children who come from some of the so-called progressive schools to visit the Bureau's laboratories. The interesting thing is that in many cases they appear to grasp the significance of some of the work more quickly than older people. They have no doubts as to the practical value of research.

As we look into the future and see this generation taking charge of things, it seems certain that research will play a more and more important part in the general scheme. The world will be governed to an increasing extent by information secured through careful experiments to determine the best way to accomplish a given result. There will be less and less room for superstition, tradition, and opinions.

A greater effort will be made to determine early in life the subject in which each young person is most interested and to give him the best possible training in that special field. Because everyone *can* do good work if he only finds out soon enough what it is. Men and women spending their lives in an uncongenial occupation in which they can never rise above mediocrity will become the exception rather than the rule. A little research by the educator and by the student early in life will do away with many misfits.

Our knowledge of the universe will increase many fold through the use of more powerful tools and with better coordination of all the sciences. Greater telescopes than any now dreamed of and other astronomical instruments will allow us to push further into the unknown depths of the heavens, and the development of more satisfactory conceptions of the structure of matter will enable us to interpret more accurately what we see. Already scientists and engineers are perfecting the design of a reflecting telescope 200 inches in diam-

eter, which will enable us to study island universes four times more distant than now known. Reports of the discoveries made with this instrument will be eagerly read all over the world.

Appreciation of that which is beautiful and worth while will be increased by the sending of the best music and literature into our homes. Research has already made the talking movie and television realities. The extension of these principles to household reception is bound to come, and with it, too, the use of this powerful means for a real educational purpose.

Research will secure better co-ordination of our production, transportation, and manufacturing activities. Where things can best be grown, how they can be transported most economically, and why certain raw materials should be used to manufacture certain products will be determined on the basis of scientific facts. Wasteful competition between services essentially complimentary, such as rail, highway, and aerial transportation will cease. The intelligent use of that which we have, whether it be given us by nature or man-made will be of one of the outstanding results of research.

Let us hope that with it all will come a better utilization of our leisure time. There must be more reading of good books. The importance of a thorough knowledge of history, for instance, can not be overestimated, for without this knowledge of the successes and failures of the past there can be no real progress in the future.

In conclusion, I can not but believe that these developments which I see in the work of one of the world's greatest research laboratories must be the result of deep, underlying forces which are always pressing onward, however much they may be obscured at times. Eventually they must lead us into a world of truth, discovered through research, and it will be a better, more beautiful, and more sympathetic world than ever before.

Current Inter-American Highway Research*

By Louise Evans, Librarian, U. S. Bureau of Public Roads

THE contacts we have with the Latin American countries result very largely from the visit to this country in 1924 of South American officials and other representatives of governments for the purpose of inspecting our roads. The Fifth International Conference of the Pan American States, held at Santiago, Chili, in April, 1923, passed a resolution calling for an official Pan American Highway Congress to be held in one of the Latin American countries. When news of this came to Washington it was decided to invite representatives from each of the Latin American countries to come to the United States prior to the conference and acquaint themselves with highway practices in this country. The active agency in this visit of inspection was the Highway Education Board, a Board on which there are representatives of Federal departments, including the Bureau of Public Roads, and of the automotive industries.

Co-operating with the Highway Education Board were the Departments of Agriculture, Commerce, and Interior, and the Pan American Union, the Inter-American High Commission, the American Road Builders' Association, the American Association of State Highway Officials. As a result, 37 delegates from 19 Latin American Republics came to this country. Inspection began with the administrative work at the offices of the Bureau of Public Roads and of the tests being conducted by the Bureau at the experimental farm at Arlington, also, the work of the U. S. Bureau of Standards. This was followed by a tour of eight States east of the Mississippi, and Minnesota—the States of North Carolina, Kentucky, Illinois, Minnesota, Wisconsin, Michigan, Ohio, Pennsylvania and New Jersey. The delegates were given an opportunity to become familiar with our methods of highway administration, finance, design and con-

*Address before the Commercial-Technical Group, Special Libraries Association, May 14, 1929

struction. They saw our road forces and machinery in action. They visited the automobile plants. They grew to know our people—all of which tended not only to the diffusion of the knowledge of road building, but to better understanding and feeling among the countries, and it resulted in more widespread interest in highway matters on both continents.

The immediate outcome of the congress was a suggested program for the conference held later at Buenos Aires and the formation of the Pan American Federation for Highway Education, similar to the Highway Education Board of this country, with national organizations in each Latin-American country and with headquarters in Washington, D. C. The Highway Education Board was asked to act as the executive committee during its period of organization. Federations have now been organized in 11 of the American republics. The story of the Pan American Highway Commission is told in a book issued by the Highway Education Board, called "Highways of Friendship." The story is likewise told in motion pictures of the tour. These were captioned in Spanish and sent to countries participating in the tour.

Such were the beginnings of the Inter-American highway relationship. Since this initial contact, the Bureau of Public Roads has been in close touch by correspondence with highway officials and with prominent citizens of practically all of the South-American countries and frequently extends assistance by furnishing information as to highway work and conditions in this country. It has participated in the First Pan American Conference of Highways at Buenos Aires in 1925, which afforded an opportunity to the delegates from the United States to become familiar with highway conditions in South American countries. It is now preparing to participate in the second conference in August of this year at Rio de Janeiro. We have also had with us for considerable periods of time, responsible officials of several of the South American highway departments, particularly representatives from Chile, who have made extended studies of our methods. We are doing everything in our power to give to our southern neighbors the advantages of our experience.

Our latest co-operation is the loan of Mr. E. W. James, Chief of the Division of Design, to the government of Colombia, to serve as a member of a commission to study and prepare plans for the improvement of the entire system of transportation and communication in that country. This commission consists of five members, three of them foreign engineers selected as expert advisors on highway, railway and waterway transportation. Mr. James is on leave of absence from the Bureau for a period of from three to six months.

The suggestion was repeatedly made by ex-President Coolidge that the United States should take a leading part in the development of a Pan American highway and he recommended in two messages that we assist the South-American countries by lending them highway engineers. This would be different from the basis on which Mr. James has gone to Colombia. In his case the loan is not official—he is granted a leave of absence for a specific purpose Mr. Coolidge wanted an assignment of American engineers whose salaries would be paid by the United States and who would receive additional compensation from the countries to which they were sent. This is the arrangement under which engineers in the Army, Navy and Marine Corps are detailed to other countries. Bills for this purpose were introduced at the first session of the 70th Congress, but no action was taken except that the Senate bill was reported out of committee.

Nor did a House Joint Resolution providing for the creation of a Pan American highway commission and authorizing an appropriation of $25,000 to carry out the provisions of the resolution, receive action. This commission was to be composed of the Secretaries of State, Commerce and Agriculture, and four citizens of the United States appointed by the President. It would be authorized to make a study, within the United States, of problems related to possible co-operation with the South American republics in the establishment of a system of highways between the United States and such republics.

The 70th Congress did pass two resolutions, the one authorizing assistance in the construction of an inter-

American highway on the Western Hemisphere, and the other appropriating $50,000 to enable the Secretary of State to assist, if requested by the Pan American countries, in the reconnaissance surveys, estimates of cost, etc. The proposed highway is to start at some point in Canada, to traverse the United States, and thence through to Mexico, the Central American states, and the States of South America. The Highway Education Board, the Pan American Confederation for Highway Education and the Pan American Union, are active in promoting such a highway.

From the library standpoint, the United States Bureau of Public Roads is co-operating with South American countries by sending to all of them each week, its Annotated list of Current Literature, Highways and Agricultural Engineering. This lists, with descriptive notes or notes giving brief digests, magazine articles, books and pamphlets received by the Bureau Library during the week. Bibliographies are also going down to these countries. We regularly send them our monthly magazine, *Public Roads*, and all other publications. We are making motion picture films especially for their use with Spanish and Portuguese captions. We will send a large exhibit to the Congress in Rio.

On the other hand, we receive highway magazines and reports from most of the South Latin and Central American countries. These magazines, especially the *Boletin de Caminos*, a national publication of Chile, dedicated to highway engineering and highway education, frequently quote from publications issued in the United States. For instance, a recent address by Mr. J. A. L. Waddell, a well known authority on bridge engineering, was translated into Spanish and published serially in *Ingeniería*, a monthly publication, the organ of the Engineering faculty of the National university of Mexico.

The Standard Sign Manual of the American Association of State Highway Officials has been translated into Portuguese and Spanish and circulated in South American countries. The standard signs, recommended for adoption by the several states to bring about uniformity in the marking of roads throughout this country, have been adopted by Mexico and other American republics.

Business Publishers International Corporation, affiliated with the McGraw-Hill Publishing Company, issues two magazines in Spanish for Latin American readers—an engineering magazine, *Ingeniería Internacional*, and an automotive magazine, *El Automóvil Americano*. Recently there appeared in the engineering magazine a series of highway articles by Mr. James, already mentioned as having been loaned to Colombia. Later these articles were gathered together in book form by the Highway Education Board and circulated widely in South America.

The National Automobile Chamber of Commerce is publishing pamphlets in Spanish.

The American Road Builders' Association, at its annual convention, holds a Pan American session, when delegates from these countries discuss their plans and their problems. Recently an International Group has been formed for the purpose of extending the activities of the Pan American Division and furthering the highway programs in Pan American countries.

No discussion would be complete without mentioning the work of the Highway Section of the Bureau of Foreign and Domestic Commerce. This section, through the commercial attaches in foreign countries, receives reports on highway conditions in these countries and from time to time issues circulars regarding them In 1925, it published a 166 page bulletin, *Trade Promotion Series, no. 18*, of the Bureau of Foreign and Domestic Commerce, on "Motor Roads in Latin America." Through its attaches it also answers inquiries from the Latin American countries about highway methods and machinery in the United States

In a sentence, this country is doing everything in its power to give to its sister republics the advantages of its experience

Practical Value of Research in Railroading*

By Julius H. Parmelee, Director, Bureau of Railway Economics

TO a very large extent, transportation has developed by means of research. In discussing this topic, I will devote myself to the railways and their history in the United States, although the same comments would apply to other countries than the United States and to other forms of transportation than the railways.

I will approach my topic through three principal channels: First, the relation of research to the beginnings and early development of railroading in the United States. Second, research work in modern railway work. Third, transportation research as typified by such organizations as the Special Libraries Association, the Bureau of Railway Economics, and other similar agencies.

Take first the beginnings of the American railway. Virtually all those beginnings grew out of research work—and when I use the word "research," I have in mind the most practical form of it. The toilsome experiments of Stephenson and others harnessed steam to motive-power machines, first by water and then by land. Next we have the inventive genius of a Peter Cooper applied to research in the development of a practical locomotive—an engine that would travel ten miles or more per hour and would go around a curve.

Few statements are so simple, so modest, and yet so eloquent in their implications as a part of the address made by Peter Cooper to the Master Mechanics Association in 1875, as follows:

> "I said to the president and a few of the directors who were principally interested that, if they would hold on, and not sacrifice their stock for a little while, I would make a small locomotive which, I thought, could pull a train around those short curves. * * * Just then another little accident happened. Some good-for-nothing fellow had run off with the copper pipes just for old copper. I got them fixed and again invited the directors to come and witness the start. That time I succeeded in getting off. You would think that so small a cylinder would not be able to do the work, and the boiler was only about as big as a flour barrel. It was a tubular boiler, with iron gun barrels for the tubes!
>
> "The safety valves would discharge the steam so rapidly that I throught all of the water would go out of the boiler. I could not conveniently alter the safety valves, and I knew that the boiler was strong, so I put my hand on them and held them down. Insignificant as that little engine was, we made the trip of thirteen miles in about an hour and twelve minutes, making all the short turns, and demonstrated the fact that a locomotive could be made which could go around those short curves, the thing that I set out to do."

Here we have the epitome of a practical research man: persistence, inability to be discouraged, power to persuade others to stick by him in the face of apparent failure, alert adaptation of his facilities to his ends, and finally a keen sense of humor. "I put my hand on the safety valves," says Cooper, and in that practical experiment took a forward step in the knowledge of engine handling. Above all, we see in him a faith in both the human and the mechanical elements of his problem.

For years before and after Cooper, research work went on, in the field of steam mechanics, of engineering and construction, of rail laying and bridge building, of operation and of costs. The remarkable piece of work now being done by Miss Cullen of the Bureau of Railway Economics staff in marshalling and analyzing the literature of early railroad costs—both of construction and of operation—has brought out one outstanding fact. It is this: the pioneers in our railway history were not only mechanical and inventive geniuses, not only masters of organization, but also keen students of cost problems. They

*Address before the Commercial-Technical Group, Special Libraries Association, May 13, 1929.

realized that the new industry then in the period of gestation could succeed and develop only if soundly financed, properly managed, and operated on a paying basis. To determine all the factors involved required research work, days and months and years of it, and it was the result of intelligent research that finally brought the infant industry through its teething period to adult proportions.

It is hard for us to realize, as we look back over the first hundred years of railroading in the United States, that at the beginning no one knew or could know anything about the way in which railroads could, should, or would develop. We have the benefit of hindsight in the matter. Our forefathers had to utilize foresight, and the best fund of common sense they possessed Only when they harnessed that common sense to research work, did their labors succeed. They made mistakes, of course; no great industry has ever developed without its ups and downs. But they probably made fewer blunders than you and I would have made under the same conditions, and what saved the day was research—patient study of all the factors known and unknown, and the application of the data in hand to the possibilities of the future.

So the railway pioneers progressed step by step, testing each step as they went. They developed the steam engine and studied its possibilities, then the track, then the engineering problems connected with construction up grades, through tunnels, under and over rivers, and—as Cooper put it—around the curves Every step was founded on research work, and no forward step was attempted until the last one had been thoroughly tested by experiment and had proved to be sound.

The railway industry has now survived its first hundred years, which in slang phrase are usually regarded as the hardest. It is now a strongly organized, a recognized economic factor among the vital forces of the nation. Scientific experimentation has largely brought it to its present status, indicating the vital importance of research to our railway beginnings.

Applying now our second question, we may inquire whether research has ceased to be a need of transportation today.

My answer to that question, if there can be any question about it, is that research is as vital to the railways, today as ever it was. I can only develop this thought briefly, but a few comments will prove, I think, the accuracy of this premise.

Any industry, such as that of railway construction, maintenance, and operation, which utilizes so many commodities and forces, and applies them in so many ways, must to use again a slang phrase --"stay on top of its job" That is, the industry and its leaders must not only know what they are doing at all times and why, but must also be looking ahead to future developments and problems. The only way to know the present and anticipate the future is by research That is, the experience of the past must be projected into the future, and research work supplies the basis for such a projection.

Work of this type is carried on by government authorities, by individual railway companies, and by the railways acting collectively through their several organizations.

Take the government authorities. Many of the federal departments in Washington are engaged in technical or economic research work, much of which touches on railway operation at various points. The railways co-operate with some of this work through individual effort, through joint committees, or otherwise

To mention a few of these activities will indicate the importance of this phase of railway research, which is seldom fully appreciated by the layman. The Bureau of Standards conducts many types of experimentation with weights, measures, mechanics, and physics, which have a bearing on railway technical problems. The Bureau of Mines, the Forest Service, the Geological Survey,—to mention only a few—are other government bureaus that contribute in their respective fields to the science of railroading. Various branches of the Department of Agriculture and of the Department of Commerce also conduct research work in what may be termed the economic side of railroad problems. Both these departments have divisions

that devote themselves primarily to transportation.

One independent branch of the federal government, the Interstate Commerce Commission, is largely a research organization. Even those of its functions that are executive and judicial must rest on a basis of accurate knowledge of the facts, while a considerable part of its duties are to keep the President, Congress, and through them the public informed on the "state of transportation" in the United States. To arrive at all the knowledge and judgment that the Commission must possess in this day of economic complexities, many bureaus exist for the purpose of developing facts on every conceivable phase of transportation. Thus we have in the Interstate Commerce Commission a Bureau of Statistics, a Bureau of Accounts, a Bureau of Finance, a Bureau of Safety, a Bureau of Traffic, and so on through the long list of factfinding, that is, research, agencies.

A recent report of the Commission on an important group of freight rates carried an analysis by one of its economic advisors, dealing with the whole problem of rates and prices in that particular industry. This analysis included an economic discussion of who pays the freight, whether the industry is overdeveloped or not, and other problems developed only through research

Many of the states, through various departments and divisions, also deal with the technique of railway construction and operation.

Individual railway companies devote much time and effort to research work. This is particularly true of the larger companies, which have attached research men to their operating, mechanical, or engineering departments. These men delve into all the problems of chemistry, physics, engineering, construction, and even geology and forestry, which come up in railroading, and some of them have made notable contributions to the safety, economy, and effectiveness of railway operation in our day.

Take the problem of combustion as an example. Fuel is the most important commodity utilized by the steam railways, as they consume 28 per cent of the bituminous coal output of the United States annually, and spend more than $400,000,000 a year for fuel alone. It is clear that even slight progress in the science of combustion means millions to the railways, and their research men have been alive to that fact. As a result of research in every phase of fuel utilization, and the application fo conservation methods, the annual fule bill has been reduced nearly a hundred millions of dollars since 1920.

Take another phase of railway operation, the problem of the steel rail. Patient research work in the laboratories of one of the large railway systems, in cooperation with the American Railway Engineering Association and with the steel mills, has developed the principal causes of transverse fissures in rails—those hidden defects that have led to many accidents in the past. Among other things, this research work recorded the history of every rail laid in railway tracks throughout the United States year by year—what mill rolled it, its weight and type, where and when it was laid, and (most important of all) its behavior under the pounding of the trains. When a defect appeared, the offending rail was taken out and studied. The result has been to improve the methods of rail manufacture, to throw light on the causes of rail failure, and even to develop a special type of machine to detect rail weakness before rather than after an accident had occurred. The effect of research of this type on the increased safety of train operation may well be appreciated.

To mention only a few other fields of railway research, there is continuing study of the problems of cross tie and lumber preservation, water treatment, stresses in rail, proper methods of grading and filling, boiler construction, bridge engineering, track laying, and so through the list

I come now to that important type of research conducted jointly by the railway companies through their organizations. Outstanding in this field is the American Railway Association, which was created because the need for cooperative study existed, and now carries on its most important work in that same field. In fact, the president of the Association, Mr R. H. Aishton, has frequently remarked to me that the American Railway Association is pri-

marily devoted to research work, and I think he is correct in that statement.

The Association had its birth in the movement, some fifty years ago, to develop standard time. Later, the railways co-operated with each other in a voluntary movement to standardize the gauge of track throughout the United States. Both these movements were successful, and emphasized the necessity of a continuing organization of the railways, to study methods and decide on standard practice in railway operations. The American Railway Association was the outgrowth of this recognition of the needs, and is today a fully developed organization whose various divisions deal with every phase of the technique of railroading. The Car Service Division of the Association, for example, studies and installs improved methods of handling freight cars. The Mechanical Division deals largely with equipment and roadway problems. There are also an Operating Division, an Engineering Division, a Safety Section, a Freight Container Bureau, and many other divisions assigned to research work in their respective fields. A collateral activity, the Bureau of Explosives, maintains a well-equipped laboratory for chemical research.

The Association co-operates with the Interstate Commerce Commission, with the Bureau of Standards, with the American Society of Civil Engineers, with universities, and with individual railway companies. It is conducting today at Purdue University an extended piece of research work into the several types of power brake This series of tests are under the supervision of a trained engineer selected from outside the railway industry, and are also under the general supervision of the Interstate Commerce Commission.

When specific problems of technique arise, the Association often creates special committees to handle them. These committees comprise representative men from the railway companies, with a staff of assistants, who study their problem from all angles and submit their findings to the American Railway Association. When approved by that Association, their report becomes standard practice for all railways Out of research work of this type is evolved that progress toward standardization which is so vital to progress in good railroading.

This brief description of the American Railway Association and its work will indicate how important research is to modern railway operation, and the existence of the Association and its collateral committees proves that the railway industry is alive to the present need of research, fully as great today as in the early days of American railroading.

Approaching now our third topic, I will refer briefly to the Special Libraries Association as one kind of recognition of the need of research work in modern industry. Library work, as I see it, rests primarily on research. To ascertain the facts, and to make them available when and where they will be most helpful, is indeed a valuable form of research activity. The special library is particularly devoted to research, because it concentrates its work in a special field. To organize our special libraries into a co-operative group that can exchange material and ideas through various media of communication is a forward step, and your association represents that forward step.

I have described the research work of the individual railway companies and of the American Railway Association. The railways have organized another bureau for research, to which I will now direct your attention. I refer to the Bureau of Railway Economics, located in Washington, and maintained from 1910 to date by co-operative agreement of the railways of the United States.

It had long been recognized that the railways possessed no fact-finding agency or clearing house, where economic studies of a general character could be undertaken. To meet this need, the Bureau of Railway Economics came into being. Primarily, the Bureau functions as a research organization.

The Director has always been a man of economic training. Attached to his office are a group of research assistants, working in various fields under his supervision. Other divisions of the Bureau are the Statistical Division, the Tabulating Division, the Operating Statistics Division, and the Agricultural

Inquiry Division. This last division is assigned to a series of studies of the relationship between commodity prices and transportation costs. All these divisions devote themselves to some phase of assembly of facts, which are brought together in the form of reports and issued as bulletins of the Bureau. All of them are research agencies.

I have not mentioned the library of the Bureau, because I wish to devote special attention to that important division of the Bureau. It is significant that the first step taken by the Director of the Bureau, Mr. L. G. McPherson, when he was appointed in 1910 to organize the new activity, was to select a librarian. Mr. R. H. Johnston was the selection, and I am happy to say that he is still the Bureau librarian, after 19 years of loyal service. The Bureau library of more than 150,000 selected transportation items, is a monument to Mr. Johnston's energy, persistence, and rare ability to know what he needed, where it could be found, and how to go after and get it.

It is unnecessary to describe to trained librarians like yourselves how the library of the Bureau of Railway Economics functions. I do wish to record in this public manner, however, my appreciation for the intelligent service rendered the Bureau by Mr. Johnston and his able staff of assistants, and through the Bureau to the railway industry generally.

It is clear that no research organization such as the Bureau of Railway Economics could function without a special library of selected material, or without a trained library staff to make that material quickly and easily available Our library has combed the world for literature on all phases of transportation; has catalogued the material; has prepared and issued hundreds of reference lists, ranging from a single page to pamphlets of several hundred pages; and stands ready at all times to serve the research needs not only of the Bureau staff, but also of railway officials, government and university officers, libraries and librarians throughout the United States and Canada.

I trust I have made it plain that practical research work has been and is vital to effective railway operation. Railway development grew out of research. Modern methods are retained and improved through research. The railways testify to their belief in the value of research, in that they maintain such organizations as the American Railway Association and the Bureau of Railway Economics as primary agencies of study and standard practice.

We listen to the rhythmic beat of the driving wheels of our locomotives on the rails, and wonder what is to be the future of railroading. Will it succumb to other forms of transportation — the motor truck, the waterway carrier, the airplane? We do not know, but I venture the assertion that whatever the future of transportation may be, that future will be determined by conclusions based on research work—study of the past and the present, with the resulting facts applied to the needs and conditions of the future, so far as they may be foreseen and predetermined.

Executive Board·

The Executive Board held its first fall meeting on Monday, September 16th, at the Boston Public Library A quorum was present and, in addition, the Editor, Secretary and several members of the Boston Association. President Alcott announced the death of Mr. John Cotton Dana and Mrs Jennie Lee Schram and suitable resolutions were formally adopted Reports were received from the various committees. The following appointments of Committee chairman were made by the Board: Committee on Co-operation with the Library of Congress, Mrs. Lucy Cullen, Exhibits, Ethel Baxter; Membership, Florence Bradley; Resolutions, Dr. Arthur E. Bostwick; Ways and Means, Eleanor S. Cavanaugh, also as members Herbert O. Brigham, D. N. Handy, Elsie Schulze, Elizabeth O. Cullen; Commercial-Technical Group, Alma C. Mitchill. Matters concerning the committees on Continuation Reading, Co-operation with the Chamber of Commerce of the United States, and Methods were continued until the next meeting of the Board.

IN MEMORIAM

MRS. JENNIE LEE SCHRAM, Director of Research and Librarian of the Illinois Chamber of Commerce, passed away at the Michael Reese Hospital in Chicago, on July 23rd, after an illness of several weeks, following an operation from which she had not fully recovered.

Mrs Schram was born in St. Louis on July 25, 1895 and was the daughter of Mr. and Mrs Henry Dillard. She received her education in St. Louis and Webster Groves, a suburb. Mrs Schram's first library position was Assistant Librarian of the Public Library of Webster Groves and while working there, through the efforts of Miss Mildred K. Allen, Librarian, she became interested in special library training, and enrolled at Washington University for special courses.

The Bell Telephone Company at St. Louis first employed her to install a filing system and to take charge of the company's library. From this position she went to Nitro, West Virginia with Graham, Anderson, Probst and White, engineers for the Hercules Powder Company, and worked there during the period of the war, as librarian and in charge of the filing system.

At the close of the war Mrs Schram spent a short time in Birmingham and then came to Chicago in the employ of Graham, Anderson, Probst & White From this position she went to the Illinois Power & Light Company and then transferred to the Illinois Chamber of Commerce. She had filled her position with this last Association for two years and a half up to the time of her death.

Nine years ago she married Fred S. Schram of Chicago and their home has been made here since that time. She is survived by her husband, her parents and a brother and sister. Burial took place in York, Ala., the home of her parents.

Mrs Schram was outstanding in her ability to accomplish an immense amount of work She was Secretary of the Illinois Chapter of the Special Libraries Association upon its installation in 1925 and was most active in securing its formation. In 1927 she was Chairman of the Program Committee, and during the last year served as a member of the Program and Membership Committees. She was always most active in the life of the Chapter and gave freely of her time and energy in all its activities. She was responsible for several constructive studies made by this group of librarians.

She was also active in the national Special Libraries Association and last year was Vice-Chairman of the Commercial-Technical Group. At the time of her death she was Chairman of the Resolutions Committee. Mrs Schram was also a member of the American Library Association and the Chicago Library Club. She was an active member of Central Eleanor Club, and during the last year was Chairman of the Activities Committee and a member of the Council.

Always intensively interested in the field of special library work, in her passing, the Association has lost a staunch member and a willing worker.

Financial Exhibits

In connection with the conference of the American Bankers Association at San Francisco during the week beginning September 30th, the Financial Group of the Special Libraries Association have arranged a model library exhibit and will distribute a revised edition of the booklet entitled "The Bank Library." The exhibit will be located on the mezzanine floor of the St Francis Hotel, the convention headquarters, and the committee, consisting of Miss Annette Windele of the American Trust Company, Miss Elizabeth Holden of the Federal Reserve Bank, Miss Isabel H. Jackson of the Bank of Italy, with Miss K. Dorothy Ferguson of the Bank of Italy as chairman, have received the support of the California Convention Committee of the American Bankers Association and the Bankers Publishing Company.

In connection with the Investment Bankers Association the Financial Group have also planned an information exhibit at the Chateau Frontenac in Quebec from October 12th to 18th. Financial services, books, public documents and publications of various investment bankers will be displayed. A list of sources for daily use will be published in pamphlet form and distributed at the meetings. The committee in charge consists of three Chicago members of the Special Libraries Association Miss Virginia Savage, librarian of the Halsey, Stuart & Company, assisted by Miss Sue M. Wuchter, librarian, Continental Illinois Company, and Miss Ruth Nichols, librarian, Federal Reserve Bank of Chicago.

Co-ordination

SPECIAL LIBRARIES ASSOCIATION has developed a fine spirit of co-operation. Probably it is the outstanding characteristic of the association. Now we should seek for improved co-ordination of our work.

In the revised Constitution adopted at Washington, a single section is devoted to committees, and it says: "All committees shall be appointed by the president, with the approval of the executive board, and such committees shall be responsible to the board." That section gives ample power to meet the situation, and the duty is to apply it One illustration will show the need

Each local association or chapter has a committee on membership, and last year, as shown by the reports submitted to the annual conference, they nobly carried on. The Cleveland Chapter added six new members, the San Francisco Association added seven, Southern California nine, Philadelphia twelve, and New York led with fifty-eight new members. In the groups, similarly, the Financial, the Commercial-Technical and the Newspaper Groups, through active membership committees, made substantial increases But each separate association and each separate group carried on without the co-ordinated aid of the others.

To make the chairman of the membership committee in each local association and in each group a member of the national membership committee, under an efficient chairman, would give a co-ordination that should prove helpful to all concerned Special problems and special needs would become known to all, and the combined experience should be helpful.

As members of a national association we not only need to think together, but to act together.

WILLIAM ALCOTT,
President.

THE National Association of Manufacturers will hold its thirty-fourth annual meeting, October 14th, 15th and 16th, at the Roosevelt Hotel, New York City. The Board of Directors of the Association, recognizing the interest of the librarians who participated in its special session last year, have extended to the members of our Association a cordial invitation to be present and attend any or all of the open sessions. This courtesy will give to members of our profession the opportunity to meet industrial leaders and to form individual personal contacts

VACATION days are over and the librarians in the special field are planning new projects, conferring with corporation executives regarding plans for the autumn, and resuming the publication of office bulletins and other forms of publicity.

In the various cities the local associations are beginning to hold their regular meetings. San Francisco established a record by starting its monthly meetings in August, doubtless proving the charm of San Francisco as a summer resort.

Under the guidance of President Alcott, the Special Libraries Association of Boston arranged a fall meeting with its principal speakers the officers of the association, including the Secretary and Editor. There were only two absentees from the number. It is planned to extend this friendly co-operation between the national and the locals to other meetings in the various cities so that during the fall and winter the associate members who do not attend the national conferences will become acquainted with the national officers and hear from their lips the hopes and aspirations of the S. L. A. In this initial action of his administration, Mr. Alcott has offered a real contribution to the welfare of the organization.

THE officers of the S. L. A. B. were delightful hosts on September 16th when the Executive Board met in Boston. The *Boston Globe* through its librarian, Mr. William Alcott entertained us at the University Club for luncheon, the Boston Public Library offered the use of its Trustees' Room for the afternoon meeting and we were the guests of the S. L. A. B. at the Hub Club for dinner. Mr. George W. Lee as Chairman of the Hospitality Committee was a host in himself. The Boston Public Library also permitted the use of the public lecture hall at Copley Square for the evening meeting.

THE avalanche of material from the Washington conference has seriously handicapped the development of new plans for future issues of the magazine. Many interesting manuscripts are lying on the Editor's desk awaiting space, but so many readable papers were presented at the conference that they must take precedence.

THE Financial Group is again functioning with plans for an exhibit at the American Bankers Association convention in San Francisco and at the conference of the Investment Bankers Association at Quebec. This committee is co-operating with the Exhibit Committee, a strong combination of two of the most active agencies in the association.

A CABLEGRAM has been received from S. S. Bullock, Secretary of the Association of Special Libraries and Information Bureaux, which reads as follows: "Annual conference of ASLIB at Trinity College, Cambridge, delighted to meet your representative Miss Towner and sends cordial greeting to 'ASLA.'" A later issue of SPECIAL LIBRARIES will contain an account of the conference prepared by Miss Isabel Towner, who was an accredited delegate from the Special Libraries Association. We shall also print during the year addresses of importance which were presented at Cambridge.

TRIBUTES to the late John Cotton Dana continue to appear in the press of the country. The *Literary Digest* for August 10th notes Mr. Dana's influence in the world of art and *Forbes Magazine* has been running posthumously a series of articles on the subject of "Art in Industry." *The Argonaut* for August 31st, under the title of "Rare Accomplishment," contains a splendid tribute to Mr. Dana. The article, signed by Junius Cravens, should be read by Mr. Dana's friends.

ON the front cover we portray the library of the Standard Statistics Company in its new quarters. This library, under the capable leadership of Miss Eleanor D. Cavanaugh, has made remarkable strides in the past few years. In another column we note a recent article written by Miss Cavanaugh.

PROCEEDINGS—FOURTH GENERAL SESSION

(Note:—Crowded columns in the July-August issue forced out the résumé of the business session which occurred at 10 A. M. on Wednesday, May 15th.)

The meeting was called to order by Vice-President Angus Fletcher. Mr. Fletcher read a telegram of greeting from the Special Libraries Association of San Francisco, also greetings from the Association of Special Libraries and Information Bureaux at London, England. Invitations from the District of Columbia League of American Pen Women were received extending courtesies on Thursday afternoon. Requests to hold the next convention were received from Boston, Cleveland, Lake Placid and St. Louis. A telegram was also received from Miss Margaret Reynolds of the First Wisconsin National Bank urging that San Francisco be selected for the next meeting

The chairman called for reports of committees and after discussion it was moved that all reports as presented in printed or mimeographed form be accepted. On behalf of the Membership Committee, Mr. Alcott called attention to the increase in membership and to the fact that the association had passed the 1100 mark. Miss Morley, for the Committee on Publications, stated that an article on insurance had been printed for the Insurance Group by the Retail Credit Association without any expense to the S. L A. Miss Mitchill, for the Exhibits Committee, discussed the method of financing exhibits. She stated that the association had been rather fortunate in exhibiting before associations where either the expense has been wholly shared by these associations or else the amount has been donated by those libraries and firms taking part in the exhibits. She cited instances where associations had regulations that prohibited non-members from exhibiting before the association, or where the finances of the association would not permit expense for exhibits. Mr. Fletcher stated that the matter of expenditure of money for this purpose should be presented to the Executive Board for further action Miss Morley believed that exhibits would be one of the most effective means of publicity the association could adopt. She suggested that a nucleus of an exhibit might be obtained in the way of equipment and perhaps some books, especially reference books, obtained in many cases without charge from the publishers. In this way the foundation of an exhibit could be accumulated which could be shipped from one place to another as desired. Miss Bradley made inquiries regarding the results from exhibits, especially the value to the association, additional members, advertising or general good will. Miss Baxter, in reply, stated that the banking group had had little difficulty in financing exhibits. She added that she had not kept tabulations on attendance, but the distribution of booklets at a recent exhibit was about 1,400. Mrs. Perkins mentioned the necessity of making early decisions regarding exhibits so that information could be furnished in time for the advance announcements of the convention.

Mr. Fletcher called for reports of Group officers and it was voted that the reports from the Group officers be accepted. Speaking for SPECIAL LIBRARIES, Mr. Brigham urged Group officers to forward news items from the various Groups prior to publication in other magazines.

It was voted that the reports of the local associations be accepted. Mr. Stebbins for the Boston association stated that every meeting had been concentrated upon one particular topic with a librarian who knew the subject thoroughly, thereby unifying the meeting.

Mr. Alcott requested that Miss Ferguson discuss the attitude of the California associations toward S. L. A. as a national association. Miss Ferguson urged the members to accept the invitation which had been extended in previous years to hold the next convention at San Francisco, and, inasmuch as the A. L. A. was planning to hold its convention on the Pacific Coast the following year, suggested that the S. L. A. cross the Rockies for the first time and hold its next convention on the Pacific Coast Miss Alexander, Miss Rebecca Rankin and Mrs. Mosher spoke in favor of a Pacific Coast convention.

Miss Baxter suggested the distribution of a circular letter addressed to the heads of various firms represented in the S. L A., urging these firms to send their librarians to the next convention Miss Walker and Miss Burnett discussed the value of communications to executives before and after the convention

Mr Pettit, speaking for the Detroit local association, stated that the Detroit Chapter had affiliated with the national association.

Miss Rankin, for the Committee on Hospitality, urged members to make themselves known.

Miss Guerrier of the Boston Public Library offered a resolution for endorsement by the S. L. A. The resolution read as follows:

> "*Resolved*, That the Special Libraries Association heartily endorse the development of a special library of education in the United States Bureau of Education, Department of Interior, and that all articles be catalogued at the earliest possible date, that bibliographies be prepared and issued to all libraries, and it offers assistance to the Commissioner in his attempt to complete the files . . . having to do with libraries and library service, often of great value to librarians."

The resolution was passed.

Mr. Stebbins for the Nominating Committee submitted its report and the following officers were elected: President—William Alcott, librarian, *Boston Globe*, Boston, Mass; First Vice-President—Miss Florence Bradley, librarian, Metropolitan Life Insurance Co., New York; Second Vice-President—Miss Margaret Reynolds, First Wisconsin National Bank, Milwaukee, Wisconsin; Treasurer—Miss Elizabeth O. Cullen, Reference librarian, Bureau of Railway Economics, Washington, D. C.; Directors—Miss Eleanor S. Cavanaugh, librarian, Standard Statistics Co., New York; Arthur E. Bostwick, librarian, Public Library, St. Louis, Mo.; Angus Fletcher, librarian, British Library of Information, New York.

Vice-President Fletcher called Mr. Alcott to the chair. President Alcott thanked the members for the honor conferred upon him and pledged himself wholeheartedly to the work. He praised the new Executive Board and said that he felt sure that all were going to co-operate to further the interests of the association and to promote the welfare of every special library. President Alcott referred with pleasure to Mr. Bowker's friendly words at the Monday morning session and stated that Mr. Bowker had touched the keynote. President Alcott said, "Ours is the field of a special library and it seems to me we should emphasize it early and late." After referring briefly to the formation of a Business Section by the A. L. A., Mr Alcott concluded as follows: "Two years ago Miss Alexander at Toronto spoke of co-operation and I want to repeat some little bits of advice that she gave there on the matter of co-operation. It is a message which I wish I could get to every member of every local association and every group. She said, 'Go to the meetings whenever possible. Serve on committees whenever asked. Be known as a co-operative member.' It seems to me those are things that should animate us in this coming year and I look forward to hearty co-operation from all the members and all the officers and the groups and the local associations Again, I thank you for the opportunity you have given me to serve you."

Miss Ferguson reported for the Resolutions Committee. (For resolutions see May-June issue, page 181.)

Mr. Brigham, in behalf of Mr. Lee, suggested that the Board appoint a Committee on Library Technique. After discussion the matter was referred to the Executive Board for action.

The meeting adjourned at 12:30 P. M.

Where Can I Find It?

The August issue of *Your Money*, the new publication of the Standard Statistics Company, Inc., under the attractive title "Where Can I Find It?," presents a well written article on the organization of a financial library, a résumé of the principal sources of information available and a suggested skeleton bibliography. The article, prepared by Miss Eleanor S. Cavanaugh, with a few minor changes, would make a valuable bit of publicity for the Special Libraries Association. The writer outlines the method of organizing the library, the amassing of a collection of books and other material, suggested methods for keeping in touch with new industrial developments and the accumulation of filed data.

A special paragraph on "Sources of Information" notes the value of government releases with special reference to the recent list prepared by Miss Marguerite Burnett; federal and state legislation; daily newspapers featuring financial news and foreign sources of information Advertising the library within the organization is featured and the value of contacts is also given prominence.

Miss Cavanaugh has avoided discussing library methods and concludes with this trenchant paragraph:

> "The writer belongs to the unorthodox wing and believes that the end justifies the means, and, while a handsome catalogue or vertical file is a thing of beauty and a joy forever, that the broader vision should be the ultimate aim, that service should be the motto, and that in collecting and filing material, one should not become so involved in the mechanical process that the main point of why the material has been collected is forgotten."

Personal Notes

Mrs. Blanche K S Wappat has resigned from her position with the Carnegie Institute of Technology.

Esther Fawcett, one of her assistants has been appointed librarian

Gertrude Peterkin spent her vacation in a motoring trip into Canada

Gudrun Moe, librarian of the Bankers' Trust Company in New York, has announced her marriage which took place last winter.

Nelle McKenzie has come East from California and is now librarian of Walker Brothers in New York City.

Rose L. Vormelker spent her vacation at the Westfield Inn, Le Roy, Ohio.

E. Dexter Brown has joined the staff of the Bureau of Railway Economics, Washington, D. C.

Elizabeth Holden is now librarian of the Federal Reserve Bank, twelfth district, at San Francisco. Miss Hilda Palache, formerly librarian, has retired from active library work for the present

Virginia Rucker has replaced Miss Sonia Wilderman as librarian of the Commonwealth Club of San Francisco. Miss Wilderman has returned to her home in Oregon because of ill health

Dorothy Krisher is a recent addition to the staff of the Shell Oil Company Library, San Francisco.

Lillian Lewis has been appointed librarian of the American Woman's Association, New York.

Eleanor Midwood has become an assistant in the Hispanic Society of America, New York

Caryl Miller, is on the staff of the Standard Statistics Company, New York

Aimee Belle Thomas has recently been placed in charge of the San Francisco Stock Exchange Institute Library which is being reorganized and enlarged.

Eunice J. Getzelman has recently become librarian of the Brookmire Economic Service, New York City. The former librarian was Miss Isabella I Smith.

Violet Weigart is librarian of the new library recently established in San Francisco by the Brookmire.

Gorton James, formerly Chief of the Domestic Commerce Division of the Department of Commerce, has recently been elected Distribution Editor of "The Business Week." Mr. James was a speaker at the Washington conference of the S. L. A., discussing distribution problems at a meeting of the Commercial-Technical Group

Delphine Humphrey sailed on the Olympic on August 30th to spend her vacation overseas.

Isabel I. Towner has resigned from the librarianship of the National Museum and is undertaking editorial work with the H. W. Wilson Company Miss Towner's vacation was spent abroad where she was the official representative for Special Libraries Association at the annual conference of our British sister association, "ASLIB."

Marguerite Burnett of the Federal Reserve Bank in New York was one of the summer visitors to Nantucket and Marthas Vineyard

Alfred Linsday has resigned his position with the Bureau of Railway Economics in Washington and is now assistant librarian New York University, Washington Square Library.

Elizabeth O. Cullen has taken over his duties in the Bureau of Railway Economics.

Mary B. Day has resigned her position as librarian of the National Safety Council in Chicago

Pyrrha B. Sheffield, formerly librarian of the Insurance Library of Chicago, has become librarian of the Museum of Science & Industry in Chicago; this was formerly the Rosenwald Museum.

Martha Holmes has assumed the librarianship of the Insurance Library of Chicago.

Willard Keyes has resigned his position as librarian of the *Boston Herald*.

Isabelle Lemmon of Boston has married and given up her library work.

Margaret Reynolds, Librarian of the First Wisconsin National Bank in Milwaukee, spent a most enjoyable summer in California, where she once more conducted a course in library training.

Katherine Malterud, formerly a reviser at Columbia University School for Library Service, has accepted a position as assistant to the Head Classifier of the Engineering Societies Library.

Frances D. Eckardt who has been for the past year assistant reference librarian in the Business Men's Branch of the Toronto Public Library, has recently taken a position with the McGraw-Hill Publishing Co., in New York City, in its editorial department.

Medical Library Association

The annual convention of the Medical Library Association was held in Cleveland on September 3-5th. Headquarters were established at the Hotel Statler and the meetings were held at the Allen Memorial Medical Library and at the Cleveland Public Library.

At the opening session on the morning of September 3rd, Dr Carl H. Lenhart, Director of the Cleveland Medical Library, welcomed the members and Dr. Archibald Malloch, President of the Association, and Librarian of the New York Academy of Medicine, responded for the Association. Dr. Malloch took for his presidential address the subject of Medical Bibliography. The remainder of the session was taken up with papers on the Cleveland Medical Library, Cleveland Public Library, Library of the Rockefeller Institute and the Welch Medical Library at Baltimore, respectively, by J. C. Harding, Librarian; Miss Louise Prouty, Vice-Librarian; Miss L. M. D. Trask, Librarian and W G. Shules, Assistant Librarian.

The main topic of the convention, "Fire Insurance and Fire Prevention for Libraries," was taken up Wednesday morning. E. B Berkeley of Owen, Crowell & Company and Frank E. Greene, both of Cleveland, read carefully prepared papers on "Insurance for Libraries" and "Fire Prevention," which led to a brisk discussion. James F. Ballard, Director of the Boston Medical Library, spoke on "Appraisal for Insurance Purposes."

Dr Maurice Fishbein of the American Medical Association described the method of preparation of the Quarterly Cumulative Index-Medicus and stated that in future numbers new editions of books would be entered He also offered to consider carefully material selected by the Association from unindexed periodicals for publication in the Index The Executive Committee later appointed a Committee to formulate a plan for carrying on this work and an Editorial Committee for the revision of cards to be sent to the Quarterly Cumulative Index-Medicus.

The afternoon meeting of September 4th was held at the Cleveland Public Library and was given up to the Round Table Discussion of the Problems of the Small Library conducted by Miss Sabina Waterfield of the Mayo Clinic.

The members were the guests of the Cleveland Medical Library Association at a luncheon in the Cleveland Medical Library, at a tea in the Art Museum and on a bus ride through the Parks of Cleveland. The annual dinner was held at the Hotel Statler where Dr Irving S. Cutter, Dean of Northwestern University Medical School of Chicago, gave an illustrated talk on Puerperal Fever The books mentioned by Dr Cutter in his address were exhibited by the Boston Medical Library.

At the business sessions of the Convention it was voted to accept the invitation of Montreal for the 1930 Meeting The following officers were elected for the ensuing year.

President, Dr. Archibald Malloch, New York Academy of Medicine; Vice-President, Dr. W. W Francis, Osler Library, McGill University; Secretary, Miss Sue Bicthan, University of Michigan Medical Library; Treasurer, Miss Mary Louise Marshall, Tulane University Medical Library.

Executive Committee

Chairman, Mr. James F. Ballard, Boston Medical Library; Miss Edna M. Poole, Toronto Academy of Medicine; Mr. J C Harding, Cleveland Medical Library; Miss C. A. MacAulift, Rush Medical School Library; Mr. Alfred L Robert, College of Physicians and Surgeons, New York.

Honorary Members

Miss M. R. Charlton, Dr. Harvey Cushing; Dr. W. W. Francis; Dr. George Dock; Mr. Wilfrid M. Voynich; Dr. V. C. Vaughan; Dr. W. W. Browning.

The Committee on Revision of the By-Laws submitted its report and the By-Laws were extensively amended and revised The important changes include the broadening of the Library Membership to include allied scientific libraries, reclassification of membership to establish a new class for library workers and the election of officers by a mail ballot.

Associations

Boston

On September 16, 1929 for the first time in the history of the Special Libraries Association of Boston the national executive board met with the local organization. This afforded an excellent opportunity for greater understanding and co-operation between the two organizations. The joint meeting in the evening was preceded by a business meeting of the executive board. Just before the evening meeting Mr. George W. Lee of Stone & Webster gave an intelligence test with prizes. The evening meeting was opened by an address of welcome by Mr. Frank A. Chase of the Boston Public Library, where the meeting was held. Mr. Albert H. Rogers, executive director of the Massachusetts Tercentenary Association, vividly portrayed the attractions of Massachusetts as a gathering place for all organizations meeting in 1930. Mr. Alcott stressed the need for a larger membership, especially the $5.00 membership, which carries voting in the national organization. Miss Cavanaugh made very clear the necessity for librarians to think in terms of business if they are to understand the business man's problems and so assist in their solving by making readily available pertinent, detailed information. Other speakers for the evening were all members of the executive board: Miss Florence Bradley, Vice-President; Mrs. Mary H. Brigham, Secretary; Miss Elizabeth O. Cullen, Treasurer; Mr. Angus Fletcher, Director, and Mr. Herbert O. Brigham, Editor of Special Libraries.

San Francisco

The monthly meeting of the San Francisco Special Libraries Association was held Wednesday evening, August 28th, in the Palace of the Legion of Honor at Lincoln Park, preceded by an informal dinner at Piccadilly Inn. Mrs. Rose Berry, official lecturer for the exhibition of contemporary American sculpture now on display, was hostess for the evening. Her lecture added greatly to the enjoyment of the remarkable collection which occupies practically the entire building and grounds. Arrangements were under the direction of Miss Sonia Wilderman, Librarian of the Commonwealth Club.

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Mr. Paul Clagstone, Western Division Manager of the United States Chamber of Commerce, addressed the Special Libraries Association of San Francisco at its September nineteenth luncheon meeting held at the Plaza Hotel. Since its organization seventeen years ago, the National Chamber of Commerce has contributed greatly to economic progress by both independent and co-operative research conducted by its several departments. Mr. Clagstone made this the subject of his discussion and concluded by extending a cordial invitation to all special librarians to become better acquainted with the resources and published reports of the national Chamber, which are available for their use and expressed his desire to co-operate with the special library group.

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