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THE ARMY INDUSTRIAL COLLEGE  
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HOW TO FIND FACTS

by

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## HOW TO FIND FACTS

Here at the Industrial College you are learning some of the principles and many of the details involved in supplying our forces in time of war. You are studying industrial mobilization.

But industry has changed since you had breakfast. It always will be changing, as also will our military requirements. And no matter where you go from here, or how much knowledge you take with you, you will have daily needs for more and more facts.

This will be true both before M-Day and after. From now until M-Day we are students. On M-Day we become teachers of expansion personnel, plus operators of a vast industrial function - the function of procurement. And in every problem the need for fresh and precise facts will be faced.

General Carty once said, "Ascertain your facts before reaching conclusions."

So, if it is true that you will have a continuing need of facts, it seems reasonable to suggest that you should know a bit about the nomenclature and operation of the tools which exist with which to find facts.

No individual can know all literature. Life is too short.

But any high school student can know the few essential tools with which, after reasonable practice, anyone can locate existing sources of known facts. This omits questions for which research as yet has provided no answers, but probably 99% of the facts you will need already are known. So your problem is to locate sources of known facts.

Professor Joseph W. Roe, of New York University, once said, "There can be no easy simple answer to a complex problem. If the answer truly is to reflect the problem it must share its complexity."

## THE STRUCTURE OF KNOWLEDGE

The supply problem in war is complex and I can offer you no easy simple method as to how to find all the facts you will need. The facts and sources of facts of this world are complex.

But finding them can be made easier if we understand what I call the physical structure of human knowledge. It is not physical, but to assume that it is helps understand it.

Assume for a moment that facts occupy space, and that all of the facts in the universe could be collected at one point and piled into a huge cube.

If you stood at a distance to look at this cube it probably would repel and dismay you by its sheer bulk. But on inspection you would see that it is cellular - much like a honeycomb.

The cells run vertically, and each has a name. The names are the subdivisions of human knowledge, the classes and subjects of facts in which we are interested.

In each cell we see a dependent sequence of specialized personnel, and here we are indulging in no assumption. These experts exist.

Now assume that you could take an elevator and descend through the entire contents of one cell. This cell will represent one subject of human knowledge and by inspecting it and the workers in it you will learn much of real value.

At the bottom, the very foundation of everything, you see a research worker digging for new truths.

Based on his work you see the writer who puts truth into form for circulation and preservation.

Printers and publishers multiply and distribute records of truth, records of the facts we need in our assigned missions. And then we come to a group of experts who really exist but who are by no means as well known as they should be. They are the people who plan the scientific storage of facts. For of course a sheet of paper can be stored just as scientifically as can a hypodermic needle in a huge medical depot. And that is just what happens to a very large proportion of the useful truths of this world.

In practically every subject trained experts classify, catalog, index and place in storage the records of truth in their subject. For of course truth always has a potential future use which can be simplified if a record of it is available in scientific storage.

By now we have come up in our mythical elevator to the top of the cell of our typical subject where we see a very sad sight. It is the human race, the potential consumers of facts, virtually ignorant of the existence of the tools for finding facts. And of course such ignorance is the leading cause for the vast lag between available standards disclosed by research - and current conditions. The present cockeyed state of the human race is due directly to failure to use existing facts reasonably available to all.

### THE PRIMARY TOOLS

But of course nobody can be expected to know the nomenclature and operation of the many thousands of tools for fact finding which exist in the thousands of cells in our cube of knowledge. So another class of particularly useful specialized personnel have solved that problem. They have created *an extra class of fact finding tools by which you can find centers of information*. At these centers of information not only will you find the important fact finding tools which apply to their subject, but also trained personnel who know how to use them to help you get exactly the facts you seek.

Of course there is no cube of human knowledge. Actually facts are being revealed by research at many points on this ball we ride.

But one condition solves this difficulty for us. It is that facts continually are in motion in a centripetal manner. The centers towards which they tend to gravitate are laboratories, libraries, association information services, desks of editors, governmental bureaus, etc. And it is to help you find these specialized centers of information that this added class of fact finding tools exists.

Of course in these few primary tools about all you will find are the names and addresses of logical sources of facts - not the facts themselves. But when you learn such a source liaison is simple. You have dropped your question into a groove aimed at people who know, and like any form of marksmanship your aim can improve with practice.

### QUESTIONS

A bit later I want to illustrate how to find sources of facts, these centers of information I have been mentioning. Instead of using questions I might select myself I prefer to use questions you can ask me. So I ask that you keep in mind

that there will be a question period in which you may ask questions to illustrate the technique of fact finding

### TWO TOOLS FOR FIRST PURCHASE

First however I want to name a few of the leading tools for fact finding. Two of them cover the world and nearly all human knowledge, so I suggest that you consider buying them for your own personal libraries. Correctly understood they will be a joy for life - if you have an open mind.

They are *PERIODICALS DIRECTORY*, edited by Ulrich, and *GUIDE TO REFERENCE BOOKS*, edited by Mudge. Their publishers and the publishers' addresses of all other items I shall mention will be found in the appendices.

Right now however I would like to mention merely the names of a few of the leading tools for fact finding. As I name each check over in your mind whether or not you have known it in the past.

Webster's Unabridged Dictionary G & C Merriam  
Thomas Register, Thomas Publishing Company  
Guide to Reference Books, American Library Association  
Periodicals Directory, R. R. Bowker & Company  
Special Libraries Directory of the United States, Special Libraries Association  
The Libraries of Washington, D. C., American Library Association  
Map Collections in the District of Columbia, Federal Board of Surveys and Maps  
Market Research Sources, U. S. Department of Commerce  
Selected Trade Associations, U. S. Department of Commerce  
Index to Army Regulations, U. S. War Department  
Handbook of Scientific and Technical Societies and Institutions of the United States and Canada - 1938, National Research Council  
Handbook of Adult Education, American Association for Adult Education  
National Libraries of the World, Grafton & Company

I estimate that those thirteen fact finding tools contain clear clues by which you can trace 90% of the useful knowledge of the world.

### ILLUSTRATIONS

Now I want to tell a few stories which illustrate the scope of fact finding as a hobby.

In December, 1918, I was in Cellettes, in the Loir River region. On the street I met a soldier who saluted saying, "Lieutenant, may I ask you a question? Day after tomorrow is Christmas, and you know we areilleted in the private homes of this town. There isn't much we can do to show our appreciation of what is being done for us, but I would like to make one gift. Can you tell me what size glove to buy for a hand

which just fits in mine?"

The other day I heard a group in the library trying to guess where they could get a large scale map of Asia. I stood it as long as I could and then interrupted saying, "The Federal Government pays a man to operate a Map Information Service as a part of the office of the Federal Board of Surveys and Maps. He will tell anyone where to find any kind of a map in any language from any official or commercial map publisher on earth - and his office is practically across the street from here."

Once I was asked, "How large must the hole in a bottle be so that a mouse can get his head into it?" A farmer with a large and valuable orchard wanted to place poisoned grain near each tree to save them from being girdled. Due to snow the mice had little food and were eating the bark. Before buying 1400 bottles to protect that grain from loss and the poison from dilution he wanted to know what size bottle to order. And I happen to live in the next block to a research laboratory in which there are 20,000 mice and rats.

A client asked for "the most extensive set of logarithm tables ever compiled." Perhaps I did not find them, but in 1926 Cambridge University Press published a directory of sources of mathematical tables. It lists a set of hyperbolic logarithms, by Adams, computed to 276 decimal places.

Once I was asked, "Is a billion the same quantity in the United States, England, France and Germany?" Of course the answer is in Webster's Dictionary.

A story is in circulation about Charles Kettering, Director of Research for the General Motors Company, which I have not verified. But it is a good story and illustrates an important point. For it relates that when he once announced that he was going to invent a self-starter for automobiles his assistants took great pity on him. They brought to him elaborate charts and computations showing that an electric motor to do that job would have to have so many horse power that it would be impracticable.

But he merely said, "Your figures are interesting, but you have overlooked two points. The first is that I crank my car, and the second is that I am no horse." So of course he proceeded to invent the self-starter.

This need for a continuously open mind illustrates the situation of a man I once knew. In his presence I happened to mention a motor which rotates ten thousand revolutions per minute. With pity for my ignorance he said, "There is no such motor. The highest speed motor ever built only turns three thousand six hundred revolutions per minute."

That annoyed me. But it also stimulated me to learn how fast motors do turn. So I went on a tour for truth.

On page 795 of the Journal of Applied Physics for December, 1937 is an article by Professor J. W. Beams of the University of Virginia. In it he describes motors which actually have been built in which, "we have obtained 24,600 r p s and hence centripetal acceleration in excess of 8 million gravity. With smaller rotor and stator this probably could be much increased."

There are sixty seconds in each minute. To learn the number of revolutions per minute of these motors you must multiply by sixty their revolutions per second, and their r p s is 24,600.

The Engineer Supply Officer at the Army Base in Brooklyn asked where he could get spider's webs at wholesale.

The Superintendent of the Army's Instrument Repair Shop wanted brass hinges without any screw holes.

The Director of Research at the Springfield Armory said he had been unable to find needed literature on mechanical springs. On my desk in New York I found on my return a catalog of the publications of the American Society of Mechanical Engineers. Their Committee on Mechanical Springs had just completed a revised edition of their bibliography. It covers all the literature they can find in all languages since 1678.

At Springfield they have warehouses with a reserve stock of walnut blanks from which to make gun stocks. But certain bugs were eating the reserve. Springfield was worried, but the Department of Agriculture knows the answer to most any kind of a bug.

Once I was asked how to find a certain island, my friend saying he had been unable to locate it on any map. Beside him was Webster's Unabridged Dictionary, and of course the gazeteer section had the answer.

That illustrates a question for which I never yet have found the answer. People will shave all the straw in a packing case to be sure they don't overlook some petty item worth a dime, yet they calmly ignore the introduction, table of contents and index of important books they already own. The author has done his best to present his facts in a useful and usable form, but then the buyer misses most of what he has bought simply because he fails to inventory the contents.

And now here is my favorite story

One day I started downtown in New York City to call on a certain famous expert. I wanted an important piece of information and expected him to ask a fee of at least a hundred dollars for it.

But it is my habit before calling on important people to check the library catalog to see if they have written anything. If they have a few moments with their stuff gives me several of their pet phrases to work into my conversation with them.

This man had written a book. It opened to a clear three page complete answer to the question I intended asking him. Of course that saved me the cost of his fee, but that is not the point of this story. For a few days later I learned he had died some weeks before.

Nevertheless that man answered my question adequately. He spoke through his book, and Solomon and Socrates and a hundred million other writers are awaiting your questions to do the same for you.

**MICROFILM**

In the Rare Book Department of the New York Public Library are two pamphlets. They were written in 1811 and I cannot buy copies of them. One is an answer to the other. I want them both because that answer was written by a certain famous Shakespearean actor who also was my great-grandfather.

Photostat copies would cost me 30¢ a page, and take a lot of space in my files. Yet that library made complete copies of both pamphlets for me at one and one-half cents per page. Here are those copies, made on standard 35 mm motion picture film, and I have a reading device with which

to read these negatives without any need of enlarged prints. Reading devices cost from \$1.75 to \$3.00. Or, if I prefer photographic enlargements from these negatives I can have them made at ten cents a print.

This new low cost process puts into your hands photographic copies of unavailable material regardless of where you may be stationed. The plans for this building could be sent you by carrier pigeon. New cameras are being installed at great library centers and microfilms as they are called are being mailed to many points.

Here in Washington, based on research work in camera design done by the Navy, is a commercial service which covers all available material in any Washington library. It is operated by the Department of Agriculture for the National Research Council, and another complete service now is being installed at the Library of Congress.

Under the editorship of Dr. Tate of the National Archives the American Library Association has started publication of a new magazine on this microfilm technique. It is called the Journal of Documentary Reproduction.

Fact finding is being mechanized.

#### THE UNEXPECTED

There are surprise values in fact finding. Next week I will start a new course in motion study methods at New York University.

While examining their catalog for details I also found a course being given on the subject of Production Tools and Equipment. The description of that course states that students will have the privilege of working in the new laboratory for the design and testing of gages established there by the United States Army. As a procurement officer that interests me.

#### DISTANCE

When you finish your present course here at the Industrial College most of you will be ordered to other stations. For that you are to be congratulated. Washington is a fine place to visit, but to use its resources you need distance. I am going back to New York to write to Washing-

ton for certain facts I want which I know are here

Why? Because I can write fifty letters in an afternoon asking for facts I want, whereas I could hardly complete five interviews in person here. Furthermore letters flow through an organization to the correct person, and if you have asked a sensible question you will receive a reasonable answer from a qualified person. But when you call in person you meet an outer office filled with maddoids who waste a lot of time. So do not grieve because you are not stationed in Washington, New York or Chicago. Many of the best facts I have procured came to me through an RFD box in the middle of Maine.

**LOGICAL SOURCES**

Use a bit of thought before writing questions. For example, here is a list of 188 associations dealing with lumber and forest products. If you want facts about wood preservation write direct to the association active in that work, as indicated by its name. But if you are seeking civilian personnel for a war service committee on lumber do not play with the small associations which have specialized functions. Go direct to the federation of all associations dealing with the subject of lumber. Lord Coke once said, "For I consider him not discreet who will pursue the rivulets when he may find the fountain."

**TRAINING**

Facility in the use of the tools of fact finding comes with practice. To make practice interesting start with your hobby. Every soldier should have a hobby, and if there are any sailors in the room they are included in that remark.

A hobby is a method by which you cheat the devil out of his use of your leisure time. That alone is reason enough for having a hobby, but there is another reason. It is because you will do better work if you have occasional periods completely free of all thoughts of work. And a hobby will provide those free periods.

If you have no hobby yet take the hobby of a friend of mine in New Jersey. He searches magazines and newspapers and compiles a list of subjects other people use as hobbies. That is his hobby, and if it doesn't drive you wild at least you will find some subject which will serve as your hobby.

In the appendix to my remarks you will find further suggestions on how to choose a hobby, but if you want a simple one of interest to men, women and children try the new one known as finger painting. At least two books have been published on it, and I have seen a house party of ten people adjourn to the kitchen, roll up their sleeves, and all try their skill on the wet paper. Some of the results are fascinating, and some merely ludicrous.

When you do find the proper hobby practice using the tools of fact finding. To do so make for yourself a really good card index *Directory of Sources of Information*. Full details on how to do this will be found in the appendix, and doing this job will give you facility in the use of the tools for fact finding which you can use later on more serious subjects.

If you have a wife of the mental type ask her to make a card index directory of sources of information on her hobby. It will interest her, and soon she will be telling you of some of the important centers of facts of which you should know. And if your wife does not yet have a hobby tell her to examine the current issue of "American Women - The Official Who's Who Among The Women of The Nation". It gives biographical sketches of 7854 leading American women, and lists *their hobbies*.

For really good training in the use of any specific fact finding tool try making an analytic abstract of it. The National Research Council has published suggestions on how to make abstracts.

#### ASSIGNMENTS

Some of you will have one or more assignments as the Regular Army Executive of a Procurement District. There you will find the key to procurement, the reserve officers assigned to do the real work in a major emergency.

I am very pessimistic over the state of the training of reserve officers holding such assignments. It is my belief that if tomorrow were M-Day we would need to shoot about half of them, and most of the other half would have to scramble to learn their jobs.

Over the entrance to the Children's Room in the Smithsonian Institution are these words *Knowledge Begins in Wonder*.

If you can get your group of reserve officers to wonder what facts they will need on M-Lay, and introduce to them the tools of fact finding, you will be adding to their knowledge. On their knowledge rests the judgment with which they will make estimates of important situations vital to national defense. If their knowledge is modern their conclusions will be reasonable.

The apperdictes to this speech have been planned to help you do constructive work in modernizing the knowledge of reserve officers who may come under your instruction.

**COOPERATION**

Some years ago I spent about five months searching for a piece of information. Finally I located it in the files of the Chief of Staff of the Siamese Army, at Bangkok.

In doing so I operated wholly by mail from New York City. And that case illustrates the courtesy which is almost universal among people who have facts towards people who seek facts. For though the answer came typed in Siamese there also was an added letter in flawless Oxford English saying, "In case your education has omitted Siamese you may welcome the enclosed translation of my letter."

When you can find cooperation like that half way round the world there is no excuse for a lack of needed facts on any subject. No excuse for any of us to go to Arlington under that epitaph in Gray's Elegy,

"But knowledge to their eyes her ample page  
Rich with the spoils of time, did ne'er unroll,"

And now I am ready for your questions. Questions for which you would like to know a source of information which we can use to illustrate this whole subject. Please do not think of this as a stunt, and do not expect me to click in every case without any tools with which to work. I'm not that good, and this is not a personal demonstration. But probably some of your questions will be simple and easy to handle, so let's try some of them and illustrate by actual cases the existence of useful guides to sources of facts.

*(Question period followed)*

(NOTE - The addresses of the publishers of all items named will be found in the various appendices which follow )

## APPENDICES

### PREMISES

National defense will be aided if an increasing number of Army and Navy personnel recognize the existence of the vast fact resources of the world, and learn the nomenclature and operation of the tools for fact finding

### SUGGESTION

To interest reserve officers who come under your instruction you can

- 1 Prepare a display of typical periodicals, simply placing them on tables in an assembly room, or grouping them by subjects. Appendix E is a list of well written magazines suggested for this display

When writing periodical publishers say, "We are preparing an exhibit of specialized publications for which we request a sample copy of your periodical, and also a copy of your Book Department Catalog "

- 2 Prepare a display of book publishers' catalogs. Appendix B is a selected list of leading publishers suggested for this display, and of course you should add the catalogs received from periodical publishers
- 3 These lists of periodicals and of book publishers are quite general. Frankly I have chosen them not only to interest officer personnel, but also their wives and families. They include not only national defense but cultural and hobby interests

Nevertheless visitors who inspect your exhibits will have still other interests not covered by these lists. So you should have a third display at the same time and same place. Appendix F lists leading fact finding tools which help anyone find book and periodical publishers on other subjects

- 4 Capitalize on the interest of individuals in their hobbies by asking each officer, and his wife, to

make a *Directory of Sources of Information* on their hobby. By doing so they gain training in the use of fact finding tools. Appendix B tells how to make such a directory, and Appendix A tells how to select a hobby.

5. Certain of the more serious officers will be willing to act as Sponsors for knowledge on some of the subjects of importance to procurement work. This will put the procurement unit itself in better liaison with available sources of facts. Appendix C tells the story of Sponsors for Knowledge.
6. Offer your display material to the Corps Area Commander. He may want to send it around as a traveling exhibit. Procurement personnel are not the only people who can benefit by knowledge of fact resources.

## APPENDIX A

### HOW TO SELECT A HOBBY

1. Decide the general field of knowledge in which you wish to have your hobby.
2. Secure a good classification of the subdivisions of that field of knowledge, and select your specific hobby. The best classifications of which I know for your problem in choosing a hobby are the ones published by the Library of Congress and sold by the Superintendent of Documents, Government Printing Office, Washington, D. C. Write either place and ask for their price list of "Classification Schedules" as used in the classification division of the Library of Congress. They cover practically all human knowledge in a series of pamphlets.
3. Public libraries often have special shelves of literature on hobbies, and on subjects suitable for hobbies.
4. Hobbies can be changed. A bit later I am planning to play with polarized light, projecting it through thin films of chemical crystals onto a large screen. If you haven't tried this yet you have a color picnic ahead to enjoy.

## APPENDIX B

### HOW TO MAKE A DIRECTORY OF SOURCES OF INFORMATION

A directory of sources of information is merely a card index of addresses of organizations and individuals from whom facts may be obtained on a particular subject. Such a directory should have a clearly defined subject and be limited to that subject. Do not mix several subjects in one directory. But you can have a directory for each of as many subjects as you may care to compile.

To make your directory on your hobby,

1. Secure a supply of index cards. It is best to use the International Library Catalog Card size. This long has been standardized at 75 mm x 125 mm, and they can be bought of any library supply source, such as the Library Division of Remington Rand, Inc. If precision cut on rotary shears they are easier to finger, and work well with printed cards such as those sold by the Library of Congress.

2. Secure 100 guide cards with half-cut tabs. On these guide cards, alternating left and right, write the following headings: Abstracts - Associations - Bibliographies - Book Dealers - Book Publishers - Clubs - Colleges - Coming Events - Conventions - Correspondence Schools - Demonstrations - Exhibits - Experiment Stations - Forums - Government Offices - Indexes - Information Services - Laboratories - Libraries - Miscellaneous - Museums - Periodicals - Printed Card Services - Reference Books.

3. Add any other type of source of information which you find to exist in the field covered by your directory and make an index guide card for it.

4. Check the fact finding tools in your field for useful sources of information on your subject, writing the address of each on a card and tiling it behind a logical guide heading. The years will improve your directory, and your directory will improve you, for facts fortify conversation. And, regardless of where you are stationed, the world of knowledge is yours if you will but take it. As Marlowe said you can have - "Infinite riches in a little room."

5. Each individual needs a directory of sources of information for his job, and another for his hobby. He or she may need others.

6 As a start be sure to include in your directory the following reference books on your subject Encyclo-  
 pedia, dictionary, history, yearbook, atlas, bibliography  
 Most important subjects have these specialized volumes

## APPENDIX C

### SPONSORS FOR KNOWLEDGE

A Sponsor for Knowledge is simply a serious person who agrees to provide a superior quality directory of sources of information which will be made available to others, and to keep it up-to-date In so doing he provides specialized advice on sources of information, and of publications, without having his time interrupted for personal interviews For of course the directory of sources of information which he creates and corrects tells its own story

But by accepting the responsibility for such a sponsorship the Sponsor for Knowledge will be impelled to do a far better job on his subject However, by making his report or directory available to others he gains too, as they make suggestions and additions which might not otherwise come to his notice

In a Procurement District such reports or directories could be kept on many subjects at the office of the Regular Army Executive, with periodic notice to the reserve officers as to the subjects covered

## APPENDIX D

### POT POURRI

Here are a few scraps of truth which may be useful

A special library is a library devoted to one subject, or to the needs of one organization Several thousand of them are listed in the Directory of Special Libraries of the United States and Canada, and in most important cities you will find at the public library a local directory of special libraries

### BIBLIOGRAPHIES

The quantity of things in print is so vast that most people welcome short, selective, lists of worth while books, pamphlets or articles on subjects of special interest Supplying such lists is a routine function of a very

large proportion of the sources you will include in your directory of sources of information. If you want bibliographies examine the headings suggested for the guide cards of your directory of sources of information. They are given in paragraph 2 or Appendix B. Start your directory by finding proper addresses for some of these headings - and ask them for bibliographies.

The Printed Card Division of the Library of Congress, Washington, D. C. sells prepared cards on several million different subjects. You can buy a bibliography in printed card form at very low cost on your hobby, or your job. Perhaps of greater importance is the fact that you can make a deposit and receive automatically new cards on all important new material presented for copyright on your subject. For details write direct.

#### HOW TO KEEP UP-TO-DATE ABOUT BOOKS

- 1 Read Publishers' Weekly - a magazine
- 2 Read Book Review Section of New York Sunday Times
- 3 Read Book Page of New York Daily Times. The Monday issue of each week reports the best selling books of the previous week.
- 4 Read new book notes in magazines on your special subject.
- 5 *Buy Books*. Book buyers are placed on preferred lists to receive notices of new books.

#### HOW TO BUY BOOKS

- 1 Order through a local book retailer. Book wholesalers are very efficiently organized to serve the retailer in getting for you any book available in any language from any nation on any subject.
- 2 Order direct from the publishers.
- 3 Probably, the one best place from which to buy books on special subjects is the Book Sales Department of an old magazine. They search the world for the literature of their special subject, study it, sift it for quality, know many of the authors during the period of authorship - and serve you direct by mail at the publishers' regular retail price. Furthermore, they put you on one of these preferred mailing lists to receive notices of new publications, coming events, etc.

No book store can equal that, for book stores are not trained in single subjects as specialists as are the editors of good magazines.

#### MILITARY AND NAVAL BOOKS

The Chief of any branch of the service should be able to provide good lists on any subject you care to study. All of the leading magazines in this field in the United States are listed in Appendix E, and their Book Sales Departments may be of aid.

### THE WHITE HOUSE LIBRARY

In 1930 the American Booksellers Association donated 500 books to the nation, to remain in the White House as a family reading library for each President. In 1934 they added 200 books and a similar number were added in 1937.

Their selections are an excellent basis for the start of a library for any home, and the lists are well classified. Due to national publicity these lists probably will be found in the files of most book dealers and public libraries. The New York Times Book Editor can supply without charge a special list entitled "A Home Library of 500 Selected Books." This is based on The White House Library but omits some of the earlier selections.

### BOOKS FOR CHILDREN

New books for children are reviewed weekly in The New York Times Book Review Section, issued as a part of their Sunday edition. It also can be secured on separate subscription.

For The Book Fair - 1937 - a special committee selected a superior collection of books for children and exhibited them in a children's library.

A list of all these books, divided into age groups, can be obtained free of charge from a member of the selection committee, Mrs. Richard Kimball, Young Books, Incorporated, 714 Madison Avenue, New York, New York. Copies of the list also may be obtained from the Book Review Editor of The New York Times.

### LEADING NEW YORK CITY RETAIL BOOK STORES WITH MAIL ORDER SERVICES

- Baker and Taylor Company - 55 Fifth Avenue
- Brentano's Book Stores, Inc., 586 Fifth Avenue
- Doubleday Doran Book Store, Inc., 214 Madison Avenue
- Furnham Bookstore, Inc., 2 West 45th Street
- Charles Scribner's Sons - 587 Fifth Avenue
- Young Books, Inc., 714 Madison Avenue

### LEADING NEW YORK STORES DEALING IN FOREIGN BOOKS

- Brentano's Book Stores, Inc., 586 Fifth Avenue
- G. P. Stechert & Company, 31 East 10th Street

### LEADING NEW YORK MAIL ORDER DEALER IN BUSINESS BOOKS

- Dixie Business Book Shop Inc., 126 Liberty Street

### HOW TO FIND ASSOCIATION ADDRESSES

- 1 Read the World Almanac
- 2 Selected lists are published by the Bureau of Foreign and Domestic Commerce of the United States Department of Commerce
- 3 Read Handbook of Scientific and Technical Societies of the United States and Canada
- 4 Ask a leading special library in your field as listed in the Directory of Special Libraries in the United States and Canada
- 5 Ask a leading periodical

### HOW TO FIND COLLEGES AND UNIVERSITIES

- 1 Read the World Almanac
- 2 For specialized institutions tell your story to the Office of Education, United States Department of the Interior, Washington, D C
- 3 Leading associations and societies in many sciences, professions and trades have established standards by which they evaluate and measure the institutions which claim to teach their subject. If you are choosing an institution for a child be sure to secure from the proper association or society their lists of approved institutions

### MAGAZINES

Probably there are over one million people who work full time creating the magazines of the world. These cover thousands of subjects and are published in many languages and nations. The Engineering Societies' Library in New York City receives 1200 magazines in its field - regularly.

The most important book ever published about magazines is Periodicals Directory - by Ulrich. It lists more than 10,000 of the important magazines of the world - classified by subject.

N W Ayer and Sons Directory of Periodicals is the leading list of American periodicals. It includes newspapers, which are omitted from the Ulrich volume, but it omits many of the more scholarly periodicals found in Ulrich for they are not of interest to advertisers.

### SPECIAL ISSUES

Certain magazines publish special issues once a year. These often are monumental volumes, worth preserving as special treasures. They cover the year's progress, report conventions and exhibitions, and some provide the only good directory of manufacturers in their field.

The one of most interest to procurement personnel probably is the yearbook issue of Industrial Marketing. That is a magazine for advertisers, but the annual issue, free to subscribers, is a real directory of sources of information classified by essential industries. It includes a list of "Business Reference Publications."

Other magazines with important annual issues of major value are American City, Chain Store Age, Distribution and Warehousing, Domestic Engineering, Editor and Publisher, Electrical Merchandising, Food Industries, Hardware Age, Instruments, Iron Age, Modern Hospital, Paper Packaging, Printing Equipment Engineer, Signs of the Times, Steel, World Convention Dates.

### SINGLE COPIES OF MAGAZINES

Any publisher will sell or send you single copies of his periodical so that you may decide whether or not you care to subscribe.

### HOW TO SUBSCRIBE TO MAGAZINES

The wholesale magazine subscription agencies are very effectively organized to serve you through any local news dealer. If you know the name of the periodical they can place your subscription for you, regardless of its language or nation of origin.

Periodicals Directory - Ulrich, lists all of the important directories of periodicals of other nations. In addition it lists 10,000 of the leading periodicals of the world, classified by subject. Probably there are over 100,000 different periodicals, but practically all of them will accept subscriptions direct - if you know their address.

The two leading New York firms which specialize in placing subscriptions to both American and foreign periodicals are Brentano's, and Steckert, both listed above with addresses.

### MAGAZINE CLUBS

Several people interested in the same subject can have all of the important periodicals on it if each will subscribe to one or two. All can circulate their copies on a schedule, and finally have his own to bind.

### GIFTS

Magazines make good gifts. They last through the year.

Do you spend twenty-five dollars a year for magazines for your home? Are the magazines you do buy really important to the cultural development of your family?

### A PROJECT FOR YOUR WIFE

Ask her to report to you how many American, and how many foreign, periodicals are listed in Periodicals Directory - Ulrich - on each of the following subjects: Aeronautics - Architecture - Art - Automobiles - Baseball - Beauty Culture - Books - Business - Camping - Chemistry - Children - Cooking - Dancing - Dogs - Economics - Education - Electricity - Engineering - Factories - Farming - Fashion - Fishing - Food - Forestry - Furniture - Games - Gardening - Genealogy - Geography - Geology - Golf - Health - Heraldry - History - Hobbies - Home Economics - Horses - Humor - Hygiene - Industry - International Relations - Interior Decorating - Investments - Investments - Labor - Law - Machinery - Manufacturing - Maps - Medicine - Meteorology - Models - Mountaineering - Music - Navy - Nomenclature - Philately - Photography - Political Science - Printing - Radio - Religion - Science - Shipbuilding - Shooting - Skating - Skiing - Sociology - Sports - Stamping - Tennis - Theatre - Transportation - Travel - Volcanoes - Women's - Writing

*Question* - would it dilute the imagination and increase the knowledge of the reserve officers in your command if they were asked to examine Periodicals Directory - Ulrich, to the same extent as is suggested for a project for your wife?

### APPENDIX E

#### MAGAZINES

Below are listed a small fraction of the magazines of the world, chosen as a sample exhibit to interest officers, their wives and their families in knowing more about such literature. Some of the best of the magazines of the world are issued without price by commercial firms as their own house organs, so if you use this appendix as the basis of an exhibit you may wish to add some of those for your local interests.

#### ADVERTISING

Editor & Publisher, 1475 Broadway, New York, New York  
Industrial Marketing, 100 East Ohio Street, Chicago, Illinois  
Modern Packaging, 425 Fourth Avenue, New York, New York  
Postage and The Mail Bag, 119 West 19th Street, New York, New York  
Printing Art Quarterly, 4660 Ravenswood Avenue, Chicago, Illinois  
Printers' Ink Monthly, 185 Madison Avenue, New York, N. Y.

#### ARCHITECTURE

American Architect, 572 Madison Avenue, New York, New York  
Architectural Forum, 3 Rockefeller Plaza, New York, New York  
Architectural Record, 119 West 40th Street, New York, New York  
Landscape Architecture, 9 Park Place, Boston, Massachusetts  
Pencil Points, 330 West 42nd Street, New York, New York

## AUTOMOTIVE

Automotive Industries, 56th & Chestnut Streets, Philadelphia, Penn  
Aviation, 330 West 42nd Street, New York, New York  
Bus Transportation, 330 West 42nd Street, New York, New York  
Commercial Car Journal, 56th & Chestnut Street, Philadelphia, Penn  
Motor, 572 Madison Avenue, New York, New York  
Motor Age, 56th & Chestnut Streets, Philadelphia, Penn  
Motor Boating, 572 Madison Avenue, New York, New York  
Trailer Caravan, 2411 - 14th Street, Detroit, Michigan  
Trailer Life, 420 Lexington Avenue, New York, New York  
Trailer Topics, 28 East Jackson Boulevard, Chicago, Illinois  
Trailer Trade, 545 Fifth Avenue, New York, New York  
Trailer Travel, 75 East Wacker Drive, Chicago, Illinois  
Transit Journal, 330 West 42nd Street, New York, New York

## BOOKS

Bookbinding & Book Production, 50 Union Square, New York, New York  
Booklist, 520 North Michigan Avenue, Chicago, Illinois  
Book Review Digest, 950 University Avenue, New York, New York  
Bulletin of Bibliography, 83 Francis Street, Boston, Massachusetts  
Cumulative Book Index, 950 University Avenue, New York, New York  
Government Publications, P C H Greenhouse, Rosslyn, Virginia  
Journal of Documentary Reproduction, 520 North Michigan Avenue, Chicago, Ill  
Library Journal, 62 West 45th Street, New York, New York  
New York Times Book Review, 229 West 43rd Street, New York, New York  
Publishers' Weekly, 62 West 45th Street, New York, New York  
Retail Bookseller, 55 Fifth Avenue, New York, New York  
Special Libraries, 345 Hudson Street, New York, New York  
Subscription Books Bulletin, 570 North Michigan Avenue, Chicago, Illinois  
Technical Book Review Index, Special Libraries Association, 345 Hudson Street,  
New York, New York  
Wilson Bulletin for Librarians, 950 University Avenue, New York, New York

## CIVIC

American City, 470 Fourth Avenue, New York, New York  
American Forests, 919 - 17th Street, N W, Washington, D C  
Parks and Recreation, Metropolitan Bank Building, Minneapolis, Minnesota  
Public Utilities Fortnightly, Munsey Building, Washington, D C  
Sheriff's and Police Review, 78 1/2 Grand Avenue, St Paul, Minnesota  
United States News, 2201 M Street, N W, Washington, D C

## COMING EVENTS

World Convention Dates, 330 West 42nd Street, New York, New York

## EDUCATION

Childhood Education, 1201 - 16th Street, N W, Washington, D C  
Child Study, 221 West 57th Street, New York, New York  
Education Index, 950 University Avenue, New York, New York  
Journal of Adult Education, 60 East 42nd Street, New York, New York  
Journal of National Association of Education, 1201 - 16th Street, N W,  
Washington, D C  
National Parent Teacher, 420 Lexington Avenue, New York, New York  
Parents' Magazine, 9 East 40th Street, New York, New York  
Private School News, 11 Beacon Street, Boston, Massachusetts

## ELECTRICAL

Electrical Contracting, 330 West 42nd Street, New York, New York

Electrical Manufacturing, 272 Madison Avenue, New York, New York  
Electrical Merchandising, 330 West 42nd Street, New York, New York  
Electrical World, 330 West 42nd Street, New York, New York  
Electronics, 330 West 42nd Street, New York, New York  
General Electric Review, Schenectady, New York  
Wholesaler's Salesman, 330 West 42nd Street, New York, New York

### ENGINEERING

Agricultural Engineering, 505 Pleasant Street, St. Joseph, Michigan  
Chemical and Metallurgical Engineering, 330 West 42nd Street, New York, N. Y.  
Civil Engineering, 29 West 39th Street, New York, New York  
Engineering and Mining Journal, 330 West 42nd Street, New York, New York  
Engineering News Record, 330 West 42nd Street, New York, New York  
Industrial and Engineering Chemistry, 330 West 42nd Street, New York, N. Y.  
Iron and Steel Engineer, 1010 Empire Building, Pittsburgh, Penn.  
Journal of the American Waterworks Association, 29 West 39th Street,  
New York, New York  
Journal of the Society of Automotive Engineers, 29 West 39th Street,  
New York, New York  
Journal of Engineering Education, University of Pittsburgh, Pittsburgh, Pa.  
Mechanical Engineering, 29 West 39th Street, New York, New York  
Military Engineer, Mills Building, Washington, D. C.  
Mining and Metallurgy, 29 West 39th Street, New York, New York  
Mining Technology, 29 West 39th Street, New York, New York  
Printing Equipment Engineer, 1276 West 3rd Street, Cleveland, Ohio  
Proceedings of the American Society of Civil Engineers, 29 West 39th  
Street, New York, New York  
Product Engineering, 330 West 42nd Street, New York, New York  
Refrigerating Engineering, 37 West 39th Street, New York, New York  
Tool Engineering, 2842 West Grand Boulevard, Detroit, Michigan  
Welding Engineer, 606 South Dearborn Street, Chicago, Illinois  
Welding Journal, 33 West 39th Street, New York, New York

### FARMING

American Poultry Journal, 536 South Clark Street, Chicago, Illinois  
Blood Horse, Post Office Box 1520, Lexington, Kentucky  
Breeders' Gazette, Spencer, Indiana  
Country Gentleman, Independence Square, Philadelphia, Penn.  
Electricity on The Farm, 24 West 40th Street, New York, New York  
Farm Implement News, 431 South Dearborn Street, Chicago, Illinois  
Farmer's Wife, 55 East 10th Street, St. Paul, Minnesota  
Gleanings in Bee Culture, Medina, Ohio  
Guernsey Breeders' Journal, Peterboro, New Hampshire  
Hoard's Dairyman, Fort Atkinson, Wisconsin  
Horseshoe World, London, Ohio  
Journal of Agricultural Research, Superintendent of Documents,  
Government Printing Office, Washington, D. C.  
Peanut Journal and Nut World, Post Office Box 166, Suffolk, Virginia  
Turkey World, Mount Morris, Illinois

### GENERAL SUBJECT MAGAZINES

American Historical Review, 535 West 114 Street, New York, New York  
American Magazine, 250 Park Avenue, New York, New York  
Atlantic Monthly, 8 Arlington Street, Boston, Massachusetts  
Collier's, 250 Park Avenue, New York, New York  
Coronet, 219 North Michigan Avenue, Chicago, Illinois  
Fortune, 9 Rockefeller Plaza, New York, New York  
Harper's Magazine, 49 East 33rd Street, New York  
Life, 9 Rockefeller Plaza, New York, New York  
Newsweek, 1270 Sixth Avenue, New York, New York  
New Yorker, 25 West 43rd Street, New York, New York  
Readers' Digest, Pleasantville, New York  
Saturday Evening Post, Independence Square, Philadelphia, Penn.  
Scribner's Magazine, 597 Fifth Avenue, New York, New York  
Time, 9 Rockefeller Plaza, New York, New York

## HOBBIES

American Kennel Gazette, 221 Fourth Avenue, New York, New York  
American Photography, 353 Newbury Street, Boston, Massachusetts  
American Pigeon Keeper, 20 West Jackson Boulevard, Chicago Illinois  
Antiques, 40 East 49th Street, New York, New York  
Camera, 636 South Franklin Square, Philadelphia, Penn  
Camera Craft 425 Bush Street, San Francisco California  
Careers and Hobbies, 700 Wood Street, Wilkinsburg, Penna  
Commercial Photographer, 520 Cayton Building, Cleveland, Ohio  
Connoisseur, 572 Madison Avenue New York, New York  
Hobbies, 2510 South Michigan Avenue, Chicago, Illinois  
Home Craftsman, 115 Worth Street, New York, New York  
Leisure, 683 Atlantic Avenue, Boston, Massachusetts  
Model Airplane News, 551 Fifth Avenue, New York New York  
Model Builder, 15 East 26th Street New York, New York  
Model Craftsman, 110 West 42nd Street, New York, New York  
Modelmaker, 7611 West State Street, Wauwatosa, Wisconsin  
Model Railroader, 7611 West State Street, Wauwatosa, Wisconsin  
Modern Mechanics & Hobbies, 22 West Putnam Street, Greenwich, Connecticut  
Photo-Miniature, 70 Fifth Avenue, New York, New York  
Pleasure, 360 North Michigan Avenue, Chicago, Illinois  
Popular Homecraft 737 North Michigan Avenue, Chicago, Illinois  
Popular Mechanics, 200 East Ontario Street, Chicago, Illinois  
Popular Science Monthly 353 Fourth Avenue, New York, New York  
Recreation, 315 Fourth Avenue, New York, New York  
The Sky Magazine, Columbus Avenue at 77th Street, New York, New York

## INDUSTRIAL

Business Week 330 West 42nd Street, New York, New York  
Chain Store Age, 93 Worth Street, New York, New York  
Construction Methods & Equipment, 330 West 42nd Street, New York, New York  
Display World, 1209 Sycamore Street, Cincinnati, Ohio  
Distribution and Warehousing, 249 West 39th Street, New York, New York  
Domestic Engineering, 1900 Prairie Avenue Chicago, Illinois  
Editor and Publisher, 1475 Broadway, New York, New York  
Factory Management and Maintenance 330 West 42nd Street, New York, New York  
Food Industries 330 West 42nd Street, New York, New York  
Hardware Age, 239 West 39th Street, New York, New York  
Harvard Business Review, 330 West 42nd Street, New York New York  
Industrial Standardization 29 West 39th Street, New York, New York  
Management Review, 330 West 42nd Street New York, New York  
Marking Devices, 185 North Wabash Avenue, Chicago, Illinois  
Metals and Alloys, 330 West 42nd Street, New York, New York  
Modern Plastics, 425 Fourth Avenue, New York, New York  
Motion Picture Herald 1270 Sixth Avenue New York New York  
Nation's Business, 1615 H Street, N W, Washington, D C  
New York Times Analyst 229 West 43rd Street, New York New York  
Occupations, 551 Fifth Avenue New York, New York  
Office Appliances 20 North Wacker Drive, Chicago, Illinois  
Playthings, 381 Fourth Avenue, New York, New York  
Purchasing, 11 West 42nd Street, New York, New York  
Railway Purchases and Stores, 9 South Clinton Street, Chicago, Illinois  
Signs of the Times, 1209 Sycamore Street, Cincinnati, Ohio  
Soda Fountain, 420 Lexington Avenue, New York, New York  
Steel, 1713 West 3rd Street Cleveland Ohio  
Textile World, 330 West 42nd Street, New York, New York  
Traffic World 418 South Market Street, Chicago, Illinois  
Wire and Wire Products, 17 East 42nd Street, New York, New York

## INTERNATIONAL RELATIONS

American Journal of International Law, 700 Jackson Place, N W,  
Washington, D C  
Foreign Affairs 45 East 65th Street, New York, New York

JUVENILE

American Boy, 7430 Second Boulevard, Detroit, Michigan  
American Girl, 14 West 49th Street, New York, New York  
Boy's Life, 2 Park Avenue, New York New York  
Child Life 536 South Clark Street, Chicago, Illinois  
Child Development, 2101 Constitution Avenue, Washington, D C  
Children's Activities 1018 South Wabash Avenue, Chicago, Illinois  
St Nicholas, 420 Lexington Avenue, New York, New York  
Scouting Magazine, 2 Park Avenue, New York, New York

MACHINERY

American Macinist, 330 West 42nd Street, New York New York  
Hitchcock's Machine Tool Blue Book, 508 South Dearborn Street, Chicago, Ill  
The Iron Age 239 West 39th Street, New York New York  
Machine Design 1213 West 3rd Street, Cleveland, Ohio  
Machinery, 149 Lafayette Street New York New York  
Wood-Working Machinery 508 South Dearborn Street Chicago Illinois

METROPOLITAN NEWSPAPER

The New York Times 229 West 43rd Street New York New York

MILITARY AND NAVAL

American Rifleman, Barr Building, Washington D C  
Army and Navy Courier Bagell Building, San Antonio Texas  
Army and Navy Journal, 1701 Connecticut Avenue N W, Washington, D C  
Army and Navy Register, 511 - 11th Street, N W, Washington, D C  
Army Ordinance 806 Mills Building, Washington D C  
Benning Herald Post Office Box 368 Columbus, Georgia  
California Guardsman, 418 Jay Street Sacramento, California  
Cavalry Journal, 1624 H Street N W, Washington, D C  
Coast Artillery Journal, 1115 - 17th Street, N W, Washington, D C  
Field Artillery Journal 1624 P Street N W Washington, D C  
Horse 810 - 18th Street, N W, Washington, D C  
Indiana National Guardsman State House Indianapolis, Indiana  
Infantry Journal 1115 - 17th Street N W Washington D C  
Iowa Guardsman, 523 Flynn Building Des Moines, Iowa  
Journal of Aviation Medicine 2642 University Avenue St Paul, Minnesota  
Leatherneck, 8th and Lye Streets, S E Washington, D C  
Marine Corps Gazette, Washington, D C  
Military Digest Post Office Box 143, Charleston, West Virginia  
Military Engineer, Mills Building Washington D C  
Military Surgeon, Army Medical Museum Washington, D C  
National Aeronautics, Dupont Circle Washington, D C  
Navy News California Theatre Building San Diego, California  
New York National Guardsman Camp Smith, Peekskill, New York  
Our Army, 160 Jay Street, Brooklyn New York  
Our Navy One Hanson Place, Brooklyn, New York  
Pennsylvania Guardsman 100 Telegraph Building Harrisburg, Penn  
Quartermaster Review 928 - 15th Street N W Washington D C  
Reserve Officer 1653 Pennsylvania Avenue, N W, Washington, D C  
Retired Men's News, Arcadia California  
Seventh Regiment Gazette, 645 Park Avenue New York, New York  
United States Air Service Transportation Building Washington D C  
United States Army Speedometer, Fort S M Houston Texas  
United States Coast Guard 1512 H Street N W Washington, D C  
United States Naval Institute Proceedings, Annapolis, Maryland  
United States Navy Magazine, Ocean Center Building Long Beach, California

MUSIC

Diapason 1511 Kimball Building Chicago Illinois  
Etude, 1712 Chestnut Street, Philadelphia Penn

## **SAFETY**

National Safety News, 20 North Wacker Drive Chicago, Illinois  
Public Safety 20 North Wacker Drive, Chicago, Illinois  
Safety Education, 1 Park Avenue, New York, New York  
Safety Engineering 75 Fulton Street, New York, New York

## **SCIENCE**

American Naturalist, 3941 Grand Central Terminal New York, New York  
Annals of the American Academy of Political and Social Science  
3547 Walnut Street, Philadelphia, Penn  
Bulletin of the Geological Society of America, 419 West 117th Street,  
New York, New York  
Geographical Review, Broadway at 156th Street, New York, New York  
Instruments, 1117 Wolfendale Street, Pittsburg, Penn  
Journal of the American Statistical Association, Woodward Building,  
Washington, D C  
Journal of Geography, 3333 Elston Avenue, Chicago, Illinois  
Journal of Geology, 5750 Ellis Avenue, Chicago, Illinois  
Modern Hospital, 919 North Michigan Avenue, Chicago Illinois  
Natural History, Columbus Avenue at 77th Street, New York, New York  
Nature Magazine, 1214 - 16th Street, N W, Washington, D C  
Personnel Journal, 29 West 39th Street, New York, New York  
Proceedings of the National Academy of Sciences, 2101 Constitution Avenue, N W ,  
Washington, D C  
Review of Scientific Instruments, 175 Fifth Avenue, New York, New York  
Science, Grand Central Terminal Building, New York, New York  
Scientific American 24 West 40th Street, New York, New York  
Scientific Monthly, Grand Central Terminal Building New York, New York

## **SPORTS**

See special list in Periodicals Directory - Ulrich  
American Fennel Gazette, 221 Fourth Avenue, New York, New York  
Baseball, 70 Fifth Avenue, New York, New York  
Camping Magazine, Lane Hall, Ann Arbor, Michigan  
Camping World, 11 East 44th Street New York, New York  
Field and Stream 515 Madison Avenue, New York, New York  
Outdoor America, 222 North Bank Drive, Chicago, Illinois  
Outdoor Life 353 Fourth Avenue, New York, New York  
Skating, 278 Huntington Avenue, Boston, Massachusetts  
The Spur, 515 Madison Avenue, New York, New York  
Town and Country, Madison Avenue at 56th Street, New York, New York  
Yachting 205 East 42nd Street, New York, New York

## **THEATRE**

American Dancer, 250 West 57th Street, New York, New York  
Billboard, 25 Opera Place, Cincinnati, Ohio  
Stage, 50 East 42nd Street, New York, New York  
Theatre Arts Monthly 40 East 49th Street, New York, New York  
Variety, 154 West 46th Street, New York, New York

## **WOMEN'S INTERESTS**

American Cookery, 221 Columbus Avenue, Boston, Massachusetts  
Arts and Decoration, 116 East 16th Street, New York, New York  
Asia 40 East 46th Street, New York, New York  
Better Homes and Gardens, 1714 Locust Street, Des Moines, Iowa  
Church Management, Auditorium Building, Cleveland Ohio  
Clubwoman, 1734 N Street, N W Washington, D C  
Country Life, 444 Madison Avenue, New York, New York  
Country Home, 250 Park Avenue, New York, New York  
Good Housekeeping, 8th Avenue at 57th Street New York New York  
Harper's Bazaar, 572 Madison Avenue New York New York  
House and Garden, 420 Lexington Avenue, New York, New York  
House Beautiful, 572 Madison Avenue, New York, New York

Hygeia, 535 North Michigan Avenue, Chicago, Illinois  
 Journal of the American Association of University Women 1634 Eye Street,  
 N W, Washington, D C  
 Journal of Home Economics, Mills Building, Washington, D C  
 Ladies Home Journal, Independence Square, Philadelphia, Penn  
 Mademoiselle, 1 East 57th Street, New York, New York  
 Magazine of Art Barr Building Washington D C  
 McCall's, 230 Park Avenue New York, New York  
 National Geographic Magazine, 1146 - 16th Street, N W, Washington, D C  
 Pictorial Review, 57th Street at 8th Avenue, New York New York  
 Public Health Nursing, 50 West 50th Street, New York, New York  
 Travel, 116 East 16th Street, New York, New York  
 Vogue, 420 Lexington Avenue New York, New York  
 Woman's Home Companion 250 Park Avenue New York New York  
 Woman's world, 461 Eighth Avenue, New York, New York  
 (NOTE - The Superintendent of Documents, Government Printing Office,  
 Washington, D C, issues a free list of the periodical and  
 magazine publications of the Federal Government )

**APPENDIX F**

**FACT FINDING TOOLS**

Below is an unbalanced list of fact finding tools, reference books, and text books. No one officer needs them all, and no one officer will find in them all he needs. But they are suggested for examination by officers interested in national defense, industrial mobilization, and the interesting use of leisure time. In short they are samples, a cross section of the world of fact literature, which may act as door openers to inquiring minds. And of course it is obvious that in choosing them I also had in mind the cultural interest of the wives and families of officers as well as their strictly professional work.

(NOTE - The addresses of all publishers will be found in appendices E and G )

**FOR FIRST PURCHASE**

Periodicals Directory, Ulrich - R R Bowker and Company  
 Guide to Reference Books Mudge - American Library Association  
 (In the sixth edition of this Guide examine pages 3, 39,  
 40, 44, 45, 51, 52, 60 to 85, 86, 87 321 to 339, 364  
 to 374, 413 to 416, 426 to 430 )

**ASSOCIATION ADDRESSES**

Code Sponsoring Organizations, U S Department of Commerce  
 Engineering Organizations in the United States, American Engineering Council  
 Directory of Organizations in the Field of Public Administration,  
 Public Administration Clearing House  
 Handbook of Scientific and Technical Societies and Institutions of the  
 United States and Canada, National Research Council  
 Market Research Sources U S Department of Commerce  
 Selected Trade Associations, U S Department of Commerce  
 World Almanac, World Almanac Publishing Company

**SPECIAL SUBJECT REFERENCE BOOKS**

American Art Annual, American Federation of Arts  
 American Booktrade Directory, R R Bowker & Company

American Men of Science, Science Press  
 American Women The Official Who's Who American Publications, Inc  
 American Year Book, American Year Book Corporation  
 Ayer & Son, Directory of Periodicals New York Ayer & Sons  
 Blue Book of Correspondence Schools National Home Study Council  
 Congressional Directory Superintendent of Documents  
 Directory of Special Libraries, Special Libraries Association  
 Dominions Office and Colonial Office List Dominions Office Publishers  
 Educational Directory Office of Education U S Department of the Interior  
 Encyclopedia Britannica Encyclopedia Britannica, Inc  
 Encyclopedia of Exploitation, Showmen's Trade Review Inc  
 Foreign Office List and Diplomatic & Consular Yearbook, Harrison & Sons  
 Handbook of Adult Education in the United States American Association  
 for Adult Education Inc  
 Map Collections in the District of Columbia, Federal Board of Surveys  
 and Maps  
 Political Handbook of the World, Council on Foreign Relations  
 Rand McNally Commercial Atlas, Rand McNally & Company  
 Social Work Yearbook, Russell Sage Foundation  
 Statesman's Yearbook McMillan & Company  
 Thomas Register of American Manufacturers, Thomas Publishing Company  
 United States Government Manual United States Information Service  
 Webster's Unabridged Dictionary G & C Merriam, Inc  
 Who's Who in America J N Macaulay Company  
 World List of Scientific Periodicals Published in the Years 1900 -  
 1933, Oxford University Press  
 Yearbook, Carnegie Endowment for International Peace  
 The Superintendent of Documents, Government Printing Office, Washington,  
 D C issues a number of free price lists of their large supply of  
 publications. These price lists are designed on subject basis. The  
 following numbered price lists will be of interest 10, 15, 18, 19, 25,  
 31, 35, 36, 50, 53, 62, 63, 65, 71, 73, 75

### TYPICAL BIBLIOGRAPHIES

Bibliography of Management Literature, American Society of Mechanical  
 Engineers  
 Books About Jobs, Parver - American Library Association

### FACTS ABOUT BOOKS

Bookman's Reading & Tools, Wilson - F W Wilson & Company  
 Directories for the Business Man, Special Libraries Association  
 Guide to Business Facts and Figures, Special Libraries Association  
 Libraries of Washington D C, American Library Association  
 Living With Books, Haines - Columbia University Press  
 Making the Most of Books, Headley - American Library Association  
 Manual of Methods of Reproducing Research Materials, Binkley - Edwards Bros  
 National Libraries of the World, Esdail - Grafton & Company  
 Price List of Publications, Business Branch Newark New Jersey Public Library  
 Price List of Publications, Special Libraries Association

### TYPICAL HOBBY BOOK

Finger Painting As A Hobby, Harper & Bros

### MY FAVORITE BOOK

The only book I ever have read a hundred times is In One Man's Life, by  
 Albert Bigelow Paine - Harper & Bros

### MY FAVORITE MAGAZINES

Architectural Forum, Architectural Record, Fortune, Good Housekeeping,  
 Industrial Marketing, Industrial Standardization Instruments, Machine  
 Design, Modern Packaging, National Geographic, Pencil Points, Printers'  
 Ink Monthly, Printing Equipment Engineer, Product Engineering, Saturday  
 Evening Post, Science, Special Libraries, World Convention Dates

## APPENDIX G

### PUBLISHERS' ADDRESSES

(NOTE - addresses of periodical publishers are given in Appendix E)

Below are listed the publishers of all volumes named in my speech and in the appendices. Also a selected group of other publishers from whom you can request catalogs with which to make an exhibit. If anyone in The Army or in The Navy can examine these catalogs without finding at least one book he wants to own he should be reported for a mental examination and observation.

This list includes most of the publishers who had exhibits at The National Book Fair - 1937 - sponsored by the New York Times.

The American Book Trade Directory, R. R. Bowker & Company, lists the major book publishers of the world and gives much book buying information.

The Cumulative Book Index, H. W. Wilson Company, is available in most libraries and gives the street addresses of publishers in the United States and some in Europe.

In the January 15, 1938 issue of Publishers' Weekly is a "Directory of United States Publishers Issuing New Books During 1937". Practically all public libraries have this.

And speaking of publishers don't forget that facts appear in the literature of manufacturers before they ever get into books, and often before they get into the magazines. *READ ADVERTISING!*

Many of the publishers listed below not only issue books, but also magazines, so when writing for material for your exhibit, which can be done by a mimeographed notice on the office letterhead, say

"We are planning an exhibit of book catalogs and copies of current periodicals with which to illustrate to our officer personnel the scope of available literature. For this exhibit we request copies of your catalogs and price lists, and a sample copy of any periodicals you may publish."

### WARNING

Before sending such a notice to such a list of publishers as you have here be sure to arrange for real exhibit space. Get an assembly room, armory or drill hall. And ask the Corps Area Officer in charge of reserve officer training if he will tell reserve officers about the exhibit.

If any publishers offer to send representatives I suggest that you refuse. This is not a commercial exhibit, but if you can get a trained librarian to help explain the use of fact finding tools, and the various catalogs that would be worth doing.

#### BOOK PUBLISHERS

American Association for Adult Education, 60 East 42nd Street, New York, New York  
American Council of Learned Societies, 907 - 15th Street, N W, Washington, D C  
American Council on Education 744 Jackson Place, Washington, D C  
American Federation of Arts Barr Building Washington, D C  
American Geographical Society Broadway at 156th Street, New York, New York  
American Library Association, 520 North Michigan Avenue, Chicago, Illinois  
American Management Association 330 West 42nd Street, New York, New York  
American Museum of Natural History, Columbus Avenue at 77th Street, New York, New York  
American National Red Cross, 17 & D Streets, N W Washington, D C  
American News Company, 131 Varick Street, New York, New York  
American Publications, Inc 527 West 7th Street, Los Angeles California  
American Society for Testing Materials, 260 South Broad Street, Philadelphia, Penn  
American Society of Mechanical Engineers 28 West 39th Street, New York New York  
American Standards Association, 29 West 39th Street, New York, New York  
American Year Book Corporation 229 West 47th Street, New York, New York  
Appleton-Century Company 35 East 32nd Street New York, New York  
Theodore A. D. & Company, 49 West 23rd Street New York, New York  
N W Ayer & Sons West Washington Square Philadelphia, Penn  
Baker & Taylor 55 Fifth Avenue, New York, New York  
Blue Ribbon Books, Inc 386 Court Avenue New York, New York  
Bobbs-Merrill Company 724 North Meridian Street, Indianapolis, Indiana  
R R Bowker Company, 62 West 45th Street, New York, New York  
Brentano's Book Stores Inc, 586 Fifth Avenue New York New York  
British Library of Information, 270 Madison Avenue, New York, New York  
Brookings Institution 720 Jackson Place, Washington D C  
Bruce Publishing Company, 407 East Michigan Street, Milwaukee, Wisconsin  
Business Branch, Newark Public Library Newark, New Jersey  
Carnegie Endowment for International Peace, 700 Jackson Place, Washington, D C  
Chamber of Commerce of the United States, 1815 I Street, N W, Washington, D C  
Council on Foreign Relations, Inc, 45 East 65th Street, New York, New York  
Covici Friede, Inc, 432 Fourth Avenue New York, New York  
Coward-McCann Inc 2 West 15th Street, New York, New York  
F S Crofts & Company, 41 Union Square West, New York, New York  
Thomas Y. Crowell Company, 432 Fourth Avenue, New York, New York  
Dartnell Corporation, 1630 Ravenswood Avenue, Chicago, Illinois  
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**TOO MUCH?**

There are officers who will leaf through this document and merely murmur, "What's the use?" - the epitaph on the cenotaph of the unburied dead

Such people do not deserve industrial mobilization assignments For if industry is to be mobilized the service needs minds able to find facts rapidly To do so they must know the nomenclature and operation of the tools for fact finding This text has been written to help in teaching just that

If I were to be allowed only one criticism of the service today I would say it needs more of *The Spirit of the Infantry* That is defined in Training Regulations No 10-5, 12-b-(1), dated December 23, 1921 - the best written Army publication I ever saw

*"The Infantry is never exhausted, it can always advance another step and fire another shot "*

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## DISCUSSION

Harvey Doane Eaton, Jr.  
Major, C.E. Res.

"How to Find Facts"

October 6, 1938

Q. Where can I go to get information relative to the by-products of copper?

A. The Copper Research Institute at 25 Broadway will give you a headache with a list of them. That doesn't, however, illustrate the technique of fact finding. That merely illustrates the fact that I happen to have had to answer a similar question and knew the place to go. If you were seriously interested in the technique of finding the source of that answer, the thing to do would be to look in the Handbook of Scientific and Professional Associations of the United States, which was one of those I mentioned. In the index find the word "copper", and there find one of the leading organizations dealing with the research field in copper. Just because I happened to know that one answer isn't a good illustration of the technique--your proper approach to that would be to look for an organization interested in that subject. A copy of that directory is in the Library. The National Research Committee gave us one last week.

Q. Major Eaton, at the International Management Convention in Washington the other day, Mr. William Allen White stated the present figure of unemployment was at thirteen million. He placed that figure, but it is variously placed by the American Federation of Labor and by the Administration and other people. How would you go about finding the definite figure or number of unemployment?

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A. I think that is a question that can't be answered. I think it is impossible to make a census of unemployment as of any one moment--people die--other people are employed--someone gets a job every day. I don't think when you ask for definiteness in that figure you are going to get it. On the other hand, you may have to do what we in the Engineer Corps occasionally do, make our own "guess-tinations". We find the best there is on a subject and make our own opinion. I would expect the American Federation of Labor, and, perhaps, the National Industrial Conference Board or Brookings Institution would be the places that would have as good information on that as of any one day as you will get. As a matter of fact, I don't think we have ever had an exact census of the population of the United States, when you ask for exactness. You might, as of any one date, send telegrams to the State Departments of Labor in each State and take a compilation of what they answer by telegram, if you want it for any one date, but as a running figure it changes so.

Commander Dunham: Major Eaton, I happen to be an officer in the Supply Corps of the Navy. Among our multitudinous duties we happen to be responsible for the commissary activities of the Navy and one of my confreres, the other day, was rather embarrassed to be asked where the idea came from of using a crescent as an indication of a person employed in the Commissary Department of a ship. I presume perhaps he felt as I felt when he told me about it, it had never occurred to him. We know that yeomen wear crossed quills and storekeepers wear crossed keys, but where did the crescent come from? I don't know and we haven't been able to find anyone who does know. Where would you go about finding that?

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A. I think it is safe to assume that there is a fanatic in each service interested in details, and I would expect that he has written a magazine article or book on insignia, or at least done a mimeographed job. The first place I would go would be the library of the Cooks and Bakers School of the Navy. I think the librarian would have indexed a great quantity of material to make it easier to find it. In other words, classify your question first--insignia. What field? Cooking. Who would know? School of Cooks and Bakers. I feel very safe in saying there must be a library there. I don't know where it is, but I would feel safe in saying that there is a library, not merely on cooking and baking, but on the history of the service in that particular field. That would be my first place and it is also true that whenever you get to a reasonably logical source, if they may not have on hand what you want, they at least know others interested in the same subject to whom to steer you.

The purpose of these questions is not in any way to indicate that I have read a book or happen to have two or three answers in mind. That would be highly unimportant and shouldn't take your time. The purpose of these questions is merely to take subjects of interest to you and use them to illustrate the fact that there are tools with which to trace sources. Your work in supply and industrial mobilization fields is going to take you into many problems. If you quickly know the tools with which you can find the man who knows, you shorten your own job, and I have no objection at all to trying to indicate how to go about finding information on your hobbies or personal problems, omitting medicine, health, religion, and one or two controversial subjects.

Colonel Riefkohl: Are there any further questions?

Q. Major Eaton, in a case where the ordinary technique does not apply, would you feel at liberty to approach the National Research Council and put the matter of technique up to them? By technique I mean your ordinary method of going to a reference book. If you couldn't find it through the ordinary sources would you go to the National Research Council with a problem?

A. Absolutely. The Special Libraries Association, which contains within its membership most of the people really active in such work has among its code of ethics the feeling that anyone should exhaust their own resources before they bother the other fellow. Don't pass your job on to him. But if you have really exhausted what you have in your library, or your home town, and are stuck, don't go without that fact just because your own resources are not enough. Tell your story plainly and send it to a logical source of information. For instance, questions on the by-products of copper are something that probably could be sent to the National Research Council. They not only publish that handbook of associations, but they keep up to date their card indices of other sources, and probably they don't put everything into their handbook either. Certainly you will find great courtesy among people who know towards those people who want to know.

Major Gano: Major Eaton, you talk about facts. Well, when we seek out what we call facts, we often find conflicting reports when there is more than one volume or one thing in written word. They both are not facts. What method would you suggest or do you use in the evaluation of such things?

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A. Well, someone once said that the greatest tragedy on earth is the murder of a theory by a fact. I think you have got to stay on that search until you find a theory which you are willing to accept as a fact. After all, after you get the information, your estimate of the situation requires that you make a decision and that involves an opinion based on your background and training. In my own case, of course, I cannot be an expert in the many fields in which my clients ask questions. I would be President of the Liars Club if I said I was and I believe the returns on that election are not yet in, so I am probably not the President. But the evaluation of conflicting sources requires that you estimate what weight you want to give to the position the author holds. Is he an unknown individual? Can you check up? Is he a crank or a concealed propaganda expert or someone with axe to grind? Or is he a reliable consultant or a scholarly individual with a background in an organization or university in which truth is important? Truth can be diluted by propaganda very easily and evaluation, in my opinion, is something for each man to work out, but the background of the man who has said a thing which he names as a fact is very important. Of course, in my own work, I make no attempt to give anyone any opinions. I would be off the deep end if I tried it. I simply say "I think you will find facts about the by-products of copper at such and such a place", and I step out of the picture. I sometimes think that my work is like that of a traffic cop who faces an oncoming flow of traffic and breaks it up into individuals, telling each one what route to take but not taking the trip with them and not being able to understand what he finds at the end of that quest on which he may be going. The evaluation of conflicts is a matter which requires judgment and opinions. I know of no universal rule on it.

Commander Dunham: Major Gano's question suggests one to me. In an article which appeared in yesterday morning's Post, having to do with the threatened railroad strike and the President's board created to try to mediate the strike, the economic expert for the railroad operators claimed that a certain figure represented the average wage. The threatened strikers presented another man who testified that the average wage is an entirely different figure. Obviously the economist working for the operators of the railroad is biased in one direction and the expert for the strikers is biased in the other direction. What is this board going to do. How is it going to go at finding what the real truth of the matter is? You mention the fact that you have got to consider what is back of them--their background--but how are they going to make a decision as to which one is right?

A. I think the board needs an umpire on whom they can rely. Now that I am going to suggest that they use an engineer, let me say that I am not one myself though I am in the Corps of Engineers. I feel that, definitely, that board, if it is going to have a judgment between conflicting opinions to make, either must use its own opinion or have qualified engineers competent to make an independent analysis and check the components involved in each of the conflicting sides. Somewhere in there is truth and somewhere there is falsity or they would agree. The type of man who can go out and check those things on a public utility such as a railroad is a qualified engineer. If that problem came into my shop in New York, I would ask at once for authority to go to the American Engineering Council, which is a federation of all the important engineer organizations in the country, and let their board, on whose judgment I would rely at once because of their position--let that board select <sup>an</sup> outstandingly competent, qualified engineer whom you can't buy or bribe, and say "Check these two conflicting figures

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and tell us what the board's opinion ought to be. I don't think you can rely wholly on opinions from any one side.

Colonel Riefkohl: Are there any questions from the visiting officers? Major Eaton, I want to thank you on behalf of the College and faculty for this very interesting talk.

Major Eaton: Thank you.