

DOCUMENT RESUME

ED 070 498

LI 004 053

TITLE Reference Tools and Services: Introduction to the Use of Commercial, Organization and Biographical Directories.

INSTITUTION System Development Corp., Santa Monica, Calif. Research and Development Div.

SPONS AGENCY Office of Education (DHEW), Washington, D.C.; Office of the Chief of Engineers (Army), Washington, D.C.

PUB DATE [69]

CONTRACT OEC-1-7-071214-5116

NOTE 152p.; (0 References); On-The-Job Training of Library Personnel

EDRS PRICE MF-\$0.65 HC-\$6.58

DESCRIPTORS Directories; Instructional Materials; \*Library Education; \*Library Reference Services; \*Library Technicians; Manuals; \*On the Job Training; \*Reference Materials; Workbooks

ABSTRACT

The three units of the instructional package included here discuss the use of: commercial directories, organization directories, and biographical directories. The specific commercial directories discussed are: "Poor's Register," "Sweet's File," and "Thomas Register of American Manufacturers." The "Research Centers Directory," and its supplement "New Research Centers," are the organization directories covered in the second unit. The unit on biographical directories categorizes biographical sources into three groups: (1) universal, which include notable persons of all times and all places; (2) retrospective, which are limited to notable persons now dead; and (3) current, which answer a wide range of questions on living persons. (Other units of this instructional package are: LI004051-004052 and LI004054-004055, the instructional package is discussed in ED032085.) (Author/NH)

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
OFFICE OF EDUCATION  
THIS DOCUMENT HAS BEEN REPRO-  
DUCEO EXACTLY AS RECEIVED FROM  
THE PERSON OR ORGANIZATION ORIG-  
INATING IT. POINTS OF VIEW OR OPIN-  
IONS STATED DO NOT NECESSARILY  
REPRESENT OFFICIAL OFFICE OF EDU-  
CATION POSITION OR POLICY

REFERENCE TOOLS AND SERVICES:

Introduction to the Use of Commercial, Organization  
and  
Biographical Directories

On-The-Job Training of Library Personnel

U.S. Office of Education  
OEC-1-7-071214-5116  
with support from the U.S. Army ATLAS Project

System Development Corporation  
2500 Colorado Ave.  
Santa Monica, California 90406

FILMED FROM BEST AVAILABLE COPY

ED 070498

LI 004 053

ELLF

LI

**REFERENCE TOOLS and SERVICES**

**Commercial  
Directories**

**On-The-Job Training of Library Personnel**

Produced under contract with the  
U.S. Office of Education  
OEC-1-7-071214-5116, with support  
from the U.S. Army ATLAS Project.



Introduction to the Use

of

Commercial Directories:

Thomas Register of American Manufacturers

Instructions for Using the Text

This is a form of "programmed text"--that is, in working with it, you must follow the instructions as to which pages to turn to, rather than reading it through, page by page. It contains a series of multiple-choice questions. At the end of each question are numbered answers; the number of each answer is also the number of the page on which that answer is discussed. Don't worry about getting the wrong answers. The text will help you get through the entire series of questions, whether your first answers are right or wrong.

Directories form the largest single category of reference works. It can be estimated that the number of directories in print in the U.S. today exceeds 100,000. This figure includes telephone directories, city directories, directories of local clubs and organizations, as well as commercial and cultural directories of regional, national, or international scope. In organization, most directories consist of a series of entries listed under specific titles arranged in alphabetical order. An index or detailed table of contents permits the user to easily find the specific information he wants. If a patron seeks personal data about a prominent professional person, including home and business addresses, the reference librarian can often locate this information by consulting the appropriate directory. If a patron would like to know if Mr. So-and-So is still vice-president of a particular firm, the reference librarian can find out by consulting the directory in which the firm is listed. Such data as credit ratings, current and past earnings, properties and assets, connections with other companies, organizational histories, and stock ownership and status can also be supplied by the reference librarian through the use of directories.

Suppose you are the reference librarian on duty when a patron walks in and wants to know the addresses of all branch offices of the Bethlehem Steel Corporation. Where would you go for an answer to this question? Select the response you believe is most correct and turn to the page indicated by the number preceding your choice.

2. Poor's Register
3. Sweet's File
4. Thomas Register

Your answer is Poor's Register. This is incorrect. Poor's Register does contain an alphabetically arranged listing of corporations, including the principal business address and the names of all officers and directors. If you had looked in Poor's Register, however, you would have found that the addresses of branch offices of the Bethlehem Steel Corporation are not given. Turn back to the question and choose another answer.

Your answer is Sweet's File. You are wrong. Sweet's File is an annually published bound volume of manufacturer's catalogues. In five volumes, it provides information on suppliers of equipment, covering product design, product engineering, machine tools, industrial, construction, and architecture. The volumes are indexed by firm, product, and trade name. Only principal business addresses are given. Addresses of branch offices are not noted. Turn back to the question on page 1 and choose another answer.

Your answer is Thomas Register.\* You are correct. Volume 7 of Thomas Register (which we are going to call TR) contains an alphabetical listing of leading manufacturers, showing home offices, branch offices, subsidiaries, successors, and other data. For more information about this important reference tool, turn the page.

\*We have used the common name for this publication here. The full publication title is Thomas Register of American Manufacturers.



THOMAS REGISTER OF AMERICAN MANUFACTURERS

The Thomas Register of American Manufacturers is claimed by its publisher to be the largest and most complete purchasing encyclopedia ever published anywhere. It is issued annually, that is, once each year, and comes in seven volumes and an index.

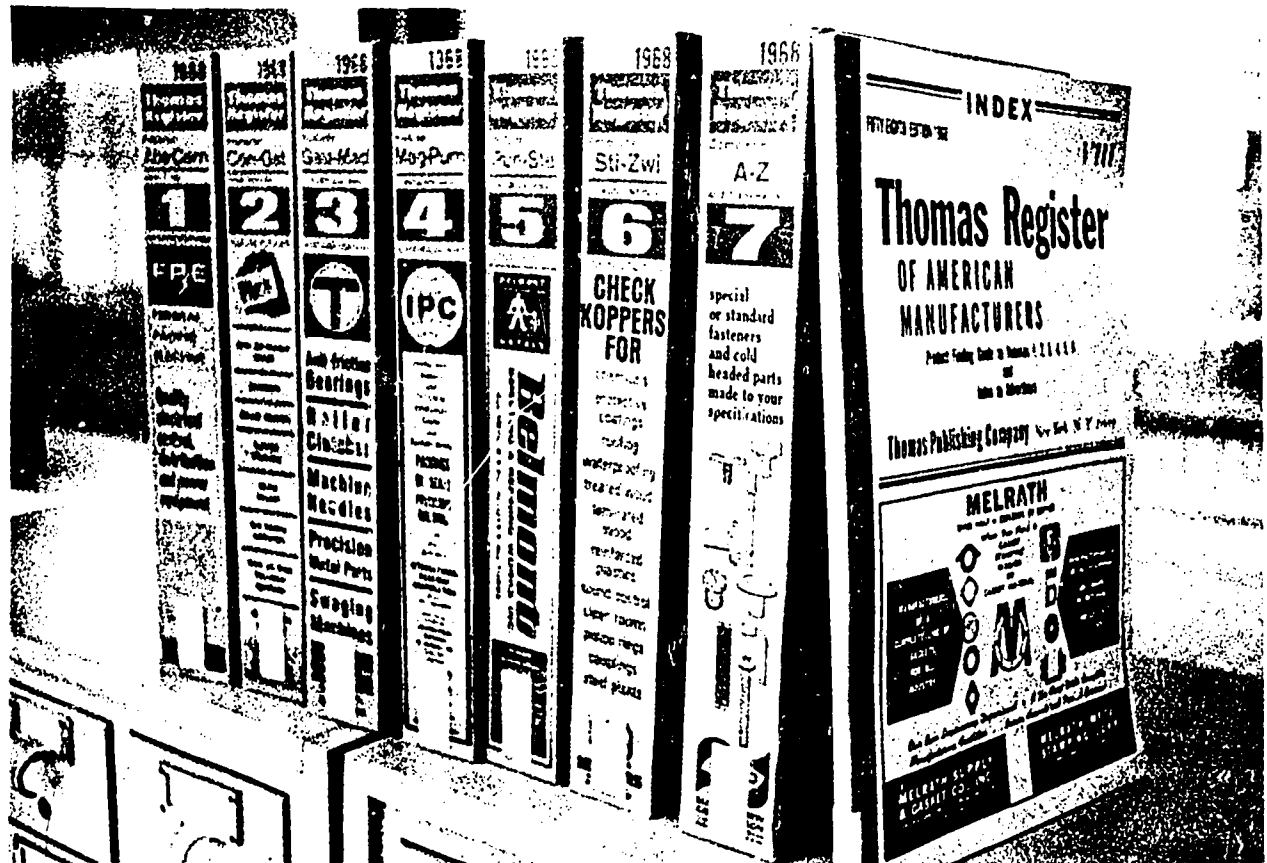


Figure 1. Thomas Register of American Manufacturers

In looking at the bindings of Volumes 1-6 in Figure 1, you see that they contain product classifications arranged alphabetically by name of the product. Volume 7 contains an alphabetically arranged list

of all important manufacturers, trademarks, board of trade, and other commercial organizations. Volume 8 contains an alphabetical product finding guide and an index to advertisers.

Figures 2 through 6 are preliminary pages from the Thomas Register. Read them thoroughly, then turn to page 12.

THIS IS YOUR 58<sup>TH</sup> EDITION OF

# THOMAS REGISTER AMERICAN MANUFACTURERS

the largest and most complete purchasing encyclopedia ever published anywhere.

*If it weren't this large—it wouldn't be complete!*

## THE REASONS FOR T. R. SUPREMACY

7 Volumes and Index • More than 10,000 pages of information for Buyers • More than 50,000 Product Descriptive Advertisements • More than 70,000 Classifications.

**Used for purchasing 120,000 times a day • 100% Paid ABC Circulation**

Completely lists all Manufacturers classified by product — the alphabetical Quick Finding Product Classification Index has 80,000 page number references to T. R. Product Sections.—Far exceeds any ordinary directory.

Also T. R. includes a capital or size rating with each product classification listing of a manufacturer—Not so in any other such Guide.

In more than 100,000 instances the T. R. listing of a manu-

facturer in a product classification, includes specific data about that manufacturer's products. And the 50,000 space advertisements in the product classifications are vastly informative about the products of the manufacturers listed. Widely used by individuals concerned with every phase of purchasing for industry—top management and others, in office and plant—for all Engineering—Research and other production activities.

### KIND OF INFORMATION T. R. WILL FURNISH

For every industry, every manufacturer, every product, anywhere in the U. S. A.

#### VOLUMES 1, 2, 3, 4, 5 and 6

- 1—Does anyone in Alabama make Cast Iron Pipe?
- 2—Are Induction Coils manufactured in Wyoming?
- 3—Who makes Electric Motors in Michigan?
- 4—Is there a large manufacturer of Rubber Hose in Connecticut?

- 5—Trademark Section.
- 6—Where are the plants of the Allis-Chalmers Mfg. Co.?
- 7—Who succeeded the Acme Rubber Mfg. Co.?
- 8—Where is the home office of the Bristol Brass Corp.?
- 9—How many products does General Electric make and what are they?
- 10—Is Novo Pump & Engine Co. a parent company or subsidiary?

#### VOLUME 7

- 11—Where are the branch offices of the Star Expansion Co.?
- 12—What is the capital rating of the Western Supply Co.?
- 13—Who are the officials of the Erie Foundry Co.?
- 14—What is the cable address of Acme Visible Records, Inc.?
- 15—What companies does Howmet Corp. own or control?

**RE: PREVIOUS EDITION** — If the new 58th (1968) Edition of THOMAS REGISTER supplants a previous edition in your office:—

The following suggestions for disposition of previous editions have come from subscribers. Many of them find that even a two year old edition of Thomas Register renders far more completely informative service than the current editions of lesser Guides.

And we suggest that you pass your 57th (1967) Edition to:

- 1—Your Engineering, Production or other Plant Department

- 2—Your Branch Office or Branch Plant that would use it

- 3—Local Chamber of Commerce or other Trade Association

- 4—Local Bank to be left on information counters for use of depositors

- 5—Public Library for public reference

- 6—Or, if you wish to sell your complete six-volume 57th (1967) Edition, in good condition, notify our authorized distributor of one-year old copies: Publishers Distribution Service, P. O. Box 23, Springfield, N. J. 07081.

If unable to locate a source of supply in this Edition, write to our Product Inquiry Service Department:

**THOMAS PUBLISHING COMPANY, 461 6th Ave., New York, N. Y. 10001**

#### LOCAL THOMAS OFFICES

CALIFORNIA 90087, LOS ANGELES  
2700 W. 3rd St., Phone (313) 382-4380  
CALIFORNIA 94104, SAN FRANCISCO  
582 Market St., Phone (415) 297-2007  
CONNECTICUT 06413, CLINTON  
50 W. Main St., Phone (203) 688-8181  
ILLINOIS 60608, CHICAGO  
261 N. Wolfe St., Phone (312) 332-2061  
INDIANA 46226, INDIANAPOLIS  
1111 E. 54th St., Phone (317) 251-5461  
KANSAS 66044, LAWRENCE  
2118 Massachusetts St., Phone (813) 842-1127  
MASSACHUSETTS 02108, BOSTON  
50 Beacon St., Phone (617) 523-4638  
MICHIGAN 49060, KALAMAZOO  
P. O. Box 2017, Phone (616) 327-6348

MICHIGAN 48078, SOUTHFIELD  
26128 Telegraph Rd., Phone (313) 287-0600  
MINNESOTA 55401, MINNEAPOLIS  
Midland Bank Bldg., Phone (612) 332-3848  
MISSOURI 63124, ST. LOUIS  
8447 Louisa Dr., Phone (314) 993-0634  
NEW JERSEY 07001, SPRINGFIELD  
130 Mountain Ave., (201) 379-1918  
NEW YORK 14214, BUFFALO  
43 East Northrup, Phone (716) 632-1880 or 634-6000  
NEW YORK 12206, SYRACUSE  
1527 York Avenue, Phone (315) 437-4823  
OHIO 45238, CINCINNATI  
7318 Kenwood Road, Phone (513) 791-3067  
OHIO 44115, CLEVELAND  
658 Hanna Bldg., Phone (216) 241-0450-51

OHIO 43023, TOLEDO  
4553 Imperial Drive, Phone (419) 482-8641  
PENNSYLVANIA 15227, PITTSBURGH  
7807 McKnight Rd., Phone (412) 621-2611-12  
PENNSYLVANIA 19082, UPPER MERION  
Long Lane & Bradford Rd., Phone (215) 828-8360  
RHODE ISLAND 02916, RIVERSIDE  
4 Florence St., Phone (401) 432-1963  
TEXAS 77018, HOUSTON  
1425 Merin Dr., Phone (713) 682-7820  
WASHINGTON 98105, SEATTLE  
2012 N. E. Revenue Blvd., Phone (206) 682-6393  
WISCONSIN 53122, ELM GROVE  
P. O. Box 517, Phone (414) 771-8688

# TO GET FULL VALUE FROM T. R.

for all your individuals concerned with every phase of purchasing for industry—for top management in office and plant—for all Production—Engineering—Research, and other individuals requiring segregated lists of U. S. Manufacturers of any product, for survey of sources—for Investigation—Specifying—Purchase—or for other production purpose.

 All Your Individuals

Executives  
Purchasing Dept.  
Research Depts.  
Superintendents  
Engineering Depts.  
Laboratories  
Production Mgrs.  
All Dept. Heads

## PLEASE NOTE

15 minutes' attention may repeatedly repay 1000%, or more . . . Probably all not aware of all the important informative and exclusive 1968 Thomas Register Service.

# THOMAS REGISTER


## U. S. NATIONAL PURCHASING ENCYCLOPEDIA

Now serving 100,000+ Purchasing Men in 35,000 industrial and other organizations—New 58th—(1968)—annual edition reaches a new high in its long time record for efficiency in meeting "Where to Buy"—(Source of Supply)—problems . . . per the "Three Basic Essentials."

### VASTLY MORE THAN A DIRECTORY...

T. R. gives extensive data about makers and their products that effectively assist in finding best sources for exactly what is wanted—See adjacent column.

- a Completely lists all Manufacturers classified by product—the alphabetical Quick Finding Product Classification Index has 80,000 page number references to T. R. Product Sections—Far exceeds any other such Guide.
- b Also T. R. includes a capital or size rating with each product classification listing of a manufacturer—Not so in any other such Guide.
- c In more than 100,000 instances, the T. R. listing of a manufacturer in a product classification, includes specific data about that manufacturer's product . . . (Mostly T. R. only). (See illustration adjacent column.)
- d And the 49,000 space advertisements in the product classifications are vastly informative about the products of the manufacturers listed.

 T. R.'s 17,000 pages include substantially all the "Where to Buy" direction in all other such Guides, and **IN ADDITION** in connection with listings

**. . . A total of 5,000+ Pages of  
Product Descriptions and Data  
Wanted by Buyers, But Not  
Available in Any Other Such Guide**

Thomas Publishing Co., 461 8th Ave., New York, N. Y. 10001  
Representatives in Principal Cities, see Volume VII



## T. R. WILL FURNISH INFORMATION

for Every Industry, Every Manufacturer  
—Every Product

Vol. I, II, III, IV, V, VI—9504 Pages

- 1—WHO MAKES SHOT ABRASIVES or any kind of any product from A to Z.
- 2—LIST OF THE MANUFACTURERS OF THE ENTIRE U. S.—Compiled alphabetically by state and locality.
- 3—THE MANUFACTURERS IN 2816 —The manufacturers in 2816 section.
- 4—ALL MANUFACTURERS RATED \$50,000 OR MORE CAPITAL—Manufacturers of any desired capital.

Vol. VII and Index—1900 pages

- 5—LIST OF GENERAL ELECTRIC'S PRODUCTS — or for any other Manufacturer.
- 6—WHO MAKES "ARASTRIP" RUBBER —Shows who makes any trade mark or special brand.
- 7—WHERE ARE PLANTS OF ENGLAND HARD INDUSTRIES INS.? (Same for all manufacturers.)
- 8—WHO SUCCEEDED AMERICAN CARBON PAPER MFG. CO.?
- 9—WHERE IS THE HOME OFFICE OF ANY MFR. or the nearest branch?
- 10—WHAT ARE THE SUBSIDIARIES, AFFILIATED OR CONTROLLED CONCERNS OF GENERAL MOTORS or of any concern?
- 11—IS NORTON-PIKE CO. A SUBSIDIARY OR AFFILIATION?
- 12—WHERE ARE BRANCHES OF HOWELL ELEC. MOTORS DIV.?
- 13—WHAT CAPITAL RATING (T. R.) for any concern? (Appears with each listing.)
- 14—NAMES OF OFFICIALS of any concern. (Given in thousands of instances.)
- 15—DOES AGHESON COLLOIDS CORPORATION solicit overseas trade? If so, what is the Cable Address? (Same for others.)

## INSTRUCTIONS FOR USE OF THIS REGISTER

### *Epecially for the Purchasing Activities*

#### TO FIND THE MANUFACTURERS OF ANY ARTICLE

**EXAMPLE:** To find "Marine Doors," turn directly to "Doors" in the Classified Section. All kinds of Doors are in one section in the proper alphabetical place under D. The same NOUN or main name arrangement is followed throughout.

Under each Product Classification the names of Manufacturers are arranged ALPHABETICALLY: first by States, second by cities and towns; third by name of Manufacturer.

**ANOTHER METHOD:** Look in Index to Contents (Vol. VIII) for the article desired. Example: to find "MARINE DOORS," look in Index under M for Marine. All Marine items will be listed and the page shown where each list appears.

**NAMES THAT ARE NOT MANUFACTURERS** are usually followed by designation such as (\*), (Job.), (Imp.), (Exp.). For more detailed explanation, see page Facing Title.

"(S. P.)" after a name indicates that the concern so marked has adopted one or more of the industries Simplified Practice Recommendations as issued by the U. S. Department of Commerce. Only names reported by the Department are so marked.

Lo. or Loc. following a name indicates that the business is largely local.

**"\* CLASSIFICATIONS**—Classifications preceded by \* are duplicate classifications—said article or product being classified under another name, to which reference is usually made, and under which the complete list of manufacturers will be found. The bold face listings of names under "\*" classifications are duplicate listings in the nature of advertising and limited to advertisers.

**DO NOT LOOK FOR INDEFINITE HEADINGS** such as "Goods," "Supplies," etc. If Carpenters' Tools are wanted, look in index under "Carpenters" and it will refer to the specific names of the articles. If Electrical Goods or Supplies are wanted, look in index under "Electric" and note the reference to various specific articles, etc., etc.

**TO FIND AN ADDRESS WHEN YOU KNOW THE NAME BUT NOT THE ADDRESS,** use the "A-Z" Section—Vol. VII. Manufacturers who are marked "Ex." solicit foreign business. "Ca." indicates Cable address.

**TO FIND BRANCH OFFICES,** see "A-Z" Section—Vol. VII.

**TO FIND SUBSIDIARIES, AFFILIATED, CONTROLLED OR SUCCEEDING CONCERNS,** see explanation, 1st page "A-Z" Section—Volume VII.

**TO FIND THE MANUFACTURER OF A SPECIAL TRADEMARK** or brand of any article, look for the Trademark desired in the alphabetical list, pink pages, Vol. VII. (See note on first page of Trademark Section.)

**NAMES IN BOLD FACE TYPE** pay for this prominence, thus indicating that they are especially interested in your inquiries.

Note explanation of Special \* Classifications.

#### A-Z Section

Names of important manufacturers with addresses, business and various other information—All in one list, alphabetically arranged, without duplication of names.

See full explanation, Page 1, Vol. VII.

**ADDENDA**—Product classifications, A-Z information, etc., which were received too late to process in individual product classifications due to closing schedules, are included in Addenda Section in the volumes in which the product would be entered when possible.

**ADDENDA**—Volumes I, II, III, IV, V & VI Product Classifications, see cover, Vol. VII—A-Z Addenda from A to Z.

### *The Capital (Total Assets) Classifications*

The rating code letters following each name indicate our estimate of approximate minimum total tangible assets as follows:

AAAA over.....\$1,000,000	B over.....\$50,000	F over.....\$2,500
AAA ".....500,000	C ".....25,000	G ".....1,000
AA ".....300,000	D ".....10,000	H ".....500
A ".....100,000	E ".....5,000	X—No estimate, see * below

Example:

BLANK MFG. CO., Anywhere, U.S.A. AA

**NOTE:** These assets classifications are not intended to indicate anything whatever in respect to credit. Neither financial liability, net worth, nor any other credit determining factor, as such, is considered in arriving at any of these estimates. They always refer to minimum total tangible assets.

\*The letter "X" must never be construed to mean anything except "no estimate" which means that the publisher has no information, or recent statement, which the publisher considers satisfactory for estimating the total tangible assets for the name marked "X." Previous estimates changed to "X" in this edition are sometimes in accordance with request of the names so marked, or are due to failure of the name to furnish satisfactory statement for this edition, or otherwise to lack of information that the publisher considers satisfactory for estimating.

**CAUTION**—The Publisher of this Register makes no representation that it is absolutely accurate or complete. Errors and omissions, typographical, clerical and otherwise, sometimes occur and this possibility exists in respect to anything printed in the work. Hence, nothing therein should be relied upon in any instance wherein there is any possibility of any loss or damage in any direction resulting from any publication, statement, error or omission in this volume. This applies to asset classifications as well as all other matter printed in this volume.

THOMAS PUBLISHING COMPANY, 461 Eighth Avenue, New York, N. Y. 10001

**PRICE \$30<sup>00</sup>/SET**

INCLUDING TRANSPORTATION COSTS  
WITHIN THE U. S. OTHER RATES ON  
REQUEST

## EXPLANATION

### The "A-Z" Index to American Manufacturers

HOME AND BRANCH OFFICES AND OTHER DATA

An alphabetically arranged list of all important manufacturers showing home offices, branch offices, subsidiaries, successors, and other data. Names of individual officers are shown for those who advertise.

**LOOK FOR THE NAME YOU INQUIRE ABOUT IN ITS ALPHABETICAL PLACE**—The information you want follows the name, as explained below—

#### SUBSIDIARIES, AFFILIATIONS, ETC.

**S**—The names that follow the S are subsidiaries of, or affiliated with, or controlled by the concern that precedes the S.

**A** (or "Sub. of")—The concern preceding the A is affiliated with, subsidiary of, or controlled by the concern that follows the A.

**ILLUSTRATION**—Under letter T.  
Thomas Publishing Co. S—American Directory Co.)

**ILLUSTRATION**—Under letter A.  
American Directory Co. A Thomas Publishing Co.)

This would indicate that Thomas Publishing Co. has an affiliated or subsidiary company—i.e.—The American Directory Co.

This would indicate that American Directory Co. is affiliated with Thomas Publishing Co. In many instances, subsidiaries, etc., are indicated by (Sub. of —).

#### CABLE ADDRESSES, ETC.

Manufacturers who are marked "Zc." or "Ezp." solicit foreign business. "Ca." indicates Cable Address.

Where no city is named after "Ca.", the cables should be sent to same address as given for the concern. Where "Ca." is followed by name of city, cables should be sent to city named.

Users of this Register must keep in mind the fact that numerous changes are constantly occurring in data of this kind, and linotype lines are liable to misplacement; errors are possible in respect to any name in the list, hence it must not be used for any purpose wherein errors might cause loss to either the user or the names listed.

**SEE ADDITIONAL NAMES AND LATE CHANGES IN "ADDENDA" AT END OF THIS SECTION.**

#### Additional Information

We aim to keep the office records of this Register up to date, and we will be glad, whenever possible to supply subscribers additional information, and changes that occur subsequent to date of publication, or addresses of names not included herein.

### The Capital (Total Assets) Classifications

The rating code letters following each name indicate our estimate of approximate minimum total tangible assets as follows:

AAAA over \$1,000,000	S over \$50,000	F over \$2,500
AAA " 500,000	C " 25,000	G " 1,000
AA " 300,000	D " 10,000	H " 500
A " 100,000	E " 5,000	X—No estimate, see * below

#### Example:

**BLANK MFG. CO., Anywhere, U. S. A.**.....AA

**NOTE:** These asset classifications are not intended to indicate anything whatever in respect to credit, financial stability, net worth, or any other credit determining factor, as such, is considered in arriving at any of these estimates. They always refer to minimum total tangible assets.

\*The letter "X" must never be construed to mean anything except "no estimate" which means that the publisher has no information, or recent statement, which the publisher considers satisfactory for estimating the total tangible assets for the name marked "X." Previous estimates changed to "X" in this edition are sometimes in accordance with request of the names so marked, or are due to failure of the name to furnish satisfactory statement for this edition, or otherwise to lack of information that the publisher considers satisfactory for estimating.

#### INFORMATION FURNISHED BY THIS "A-Z" SECTION

**Where is the home office, or nearest branch of Abbott Laboratories?**

This information follows the name.

**Who succeeded Lancaster Brush Co.?**

This information follows the name in the form of "(S)—see The (S) means change made in 3rd Ed.—(S)—see 3rd Ed., etc., etc.

**Does the Acma Electric Corp. solicit export trade? If so, what is their cable address?**

See "Zc." and "Ca." Explanation.

**What concerns are subsidiaries of, or affiliated with, General Motors Corp.?**

See "S" Explanation.

**Is U. S. Steel Supply Company a subsidiary, controlled or affiliated concern? If so, who controls it?**

See "A" Explanation.

**CAUTION**—The Publisher of this Register makes no representation that it is absolutely accurate or complete. Errors and omissions, typographical, clerical and otherwise, sometimes occur and this possibility exists in respect to anything printed in the work. Hence, nothing therein should be relied upon in any instance wherein there is any possibility of any loss or damage in any direction resulting from any publication, statement, error or omission in this volume. This applies to exact classifications as well as all other matter printed in this volume.

#### A

- "A" Brass Foundry, 2002 E. Vernon Ave. (Vernon), Los Angeles, Calif....X
- A-Coating Service Co. (B Clearite Products) (Plastic-Protective Dip Coating), 818-820 N. Franklin, Chicago, Ill.....B
- A Craft Katerpillar, Inc. (Metal Spinning, Welding & Brazing), 3 Louise, Binghamton, N. Y. ....A
- "A" DIV. OF AAAAA ACE PAPER BOX CORP., 1727 Carristen Ave., Brooklyn, N. Y. (Phone: 226-7490—Area Code 212) AAAA (Manufacturers and Designers of All Types of Folding and Set-Up Boxes, Mailing Devices and Mailing Tubes) (A) A. Fleisig Sons)
- "A", DIV. U. S. BOX CO., 71 Metropolitan Ave., Brooklyn, N. Y. 11211 AAA (Mfrs. of Stock and Custom Boxes, Mailers, Set-Up, Folding, Plastic, Acetate, Tubes)
- A-Economy Scrap Co. (Paper & Metal Scrap), 68 Livingston, Newark, N. J.
- A-GUILD PAPER PRODUCTS CO., 1154-A Intervale Ave., New York, N. Y. 10459 AA (Mfrs. of Bags and Envelopes for Every Purpose, Plain or Printed, Transparent, Polyethylene, Paper, Cellophane, Plastic; Packaging Specialists; Shopping Bags)
- A-OK Industries Inc. (Machine Work General Contract), Roseville, Wis. X Pak Co (Custom Packaging), 4122 Spring Grove Ave., Cincinnati, Ohio .....
- A-One Kotzin Co. (Finishing Specialties), 4041 W. Jefferson, Los Angeles, Calif. ....A
- A Pauch Products Mfg. Co. (Die Cutting, Gaskets, Shims, etc.), 314 S. Keimier Ave., Chicago, Ill. ....B
- AA Automation Associates of New York, Inc. (Oiling, Bag Filling, Labeling, Special Machinery), 130 W. 40th St., New York, N. Y. X
- A A COIL PRODUCTS, 6834 South Chicago Ave., Chicago, Ill. 60637 (Phone: 617terfield 8-6151—Area Code 312) B (Springs for Every Mechanical Need; Any Type, Any Quantity—Square, Round and Flat; Brass, Bronze and Aluminum Rings, Wire Forms and Stampings) (P.) Nedrae Lbars; (R.) Eugene Lbars.

A-A Engineering Co. (B-Standard Precision Div.), 10020 Miller Way, South Gate, Calif. ....X



- AA GAGE DIV., U. S. INDUSTRIES, INC., 352 Fair St., Detroit, Mich. 48220 (Phone: 548-3810—Area Code 313) AAAA (Fine Precision Standard Gaging Components [Ind. Sweep Gages—Indicator Depth Gages—Internal, External Multi Gages—Precision Centers], "Ultradex" Precision Index Tables [1/2 Arc Second Accuracy], "Ultraron" Precision Rotary Tables [1/2 to 48" Dia.], Precision Master Balls, "Ultraduck" Precision Chucking [Magnetic Cylinder sq] Design—Design and Build—Build, "Absolute Accuracy" Our Creed) (A) U. S. Industries, Inc.) (Ez. Ca. "Aggust") (Cama. of Bd.) B. W. Schabot; (P) Neil B. Michie; (Exec. V. P.) N. G. Miller.
- A A Laundry Machy. Co., 1115 S. Kedzie Ave., Chicago, Ill.....Y
- Leptic Tank Co., 2940 W. 10 Court, Hialeah, Fla. ....A
- Textile Wiper Co. (Wiping Bags, etc.), 187-T Chestnut St., New-Brk, N. J. ....A
- Wire Products Co. (B-Blok-Lot of Turns, Inc.; Sub-Lok Ltd.) (Wire Spacers & Wall Ties), 714 E. Gut, Chicago, Ill. (Ca. "Lawpec") .....
- AAA AIRCRAFT SUPPLY INC., Bldg 203, Bradley International Airport, Windsor Locks, Conn. 06096 (Phone: 623-2541—Area Code 203) B (AN & MS Fittings, Screws, Fasteners, Washers, Nuts, Bolts; AN & MS Parts DISTRIBUTORS) (P.) Joseph P. Glasco.

Figure 5. Preliminary page of Thomas Register

Please Preserve Carefully . . . Do Not Mislay

## PRODUCT INDEX—FINDING GUIDE

TO CONTENTS VOLS. I, II, III, IV, V, VI, VII  
AND INDEX TO ADVERTISERS

### 58th EDITION, 1968

## THOMAS REGISTER OF AMERICAN MANUFACTURERS

VOL. I—PRODUCT CLASSIFICATIONS  
PAGES 1-1696

VOL. II—PRODUCT CLASSIFICATIONS  
PAGES 1697-3264

VOL. III—PRODUCT CLASSIFICATIONS  
PAGES 3265-4896

VOL. IV—PRODUCT CLASSIFICATIONS  
PAGES 4897-6464

VOL. V—PRODUCT CLASSIFICATIONS  
PAGES 6465-7968

VOL. VI—PRODUCT CLASSIFICATIONS  
PAGES 7969-9504

VOL. VII—A-Z ALPHABETICAL LIST OF  
MANUFACTURERS—TRADEMARKS—  
BOARDS OF TRADE & OTHER COM-  
MERCIAL ORGANIZATIONS

INDEX TO ADVERTISERS—END OF THIS  
VOLUME

### WHY THIS INDEX IN SEPARATE VOLUME?

WHY NOT INCLUDED IN VOL. I, II, III, IV, V, VI OR VII?

In the past we have had numerous suggestions that the separate Index would be more easily serviceable.

In pursuance of our aim to ascertain the majority preference of our subscribers, and to give them what they want, we made a cross section survey of more than 5000 subscribers.

Approximately 70% voted for the separate volume—we felt obliged to act in accordance with the majority preference, and are confident that 30% who voted otherwise will nevertheless find considerable advantage in the separate volume.

This thin, flat opening Index will be more convenient than if placed in either of the larger volumes, for finding and noting the page numbers for the particular products desired.

And where two or more Departments use the same copy of the Register—(located in Library or elsewhere)—each Department could have its own copy of the Index at nominal cost noted below.

**THERE IS A POSSIBLE DISADVANTAGE** in the possibility of the thin Index Volume being mislaid or lost. We would caution our subscribers to guard against this. However, in such case there is good possibility of its being replaced.

### ADDITIONAL COPIES OF THIS INDEX

If and when subscribers assure us that this Index has been inadvertently mislaid or lost, we will supply replacement free of charge, provided we have any available at the time of request.

When the foregoing reason for replacement is not applicable but additional copy or copies are wanted for Department use, we will furnish at cost—\$2.00 per copy—as long as supply is available.

**THOMAS PUBLISHING CO., 461 8th Ave., NEW YORK, N. Y. 10001**

Copyright 1967 by Thomas Publishing Co., New York

1-H

Figure 6. Preliminary page of Thomas Register

### Question

A patron in your library says that he would like to know the names of companies other than Bethlehem Steel who manufacturer carbon steel and export it. Using TR, how could you obtain this information? Select the answer that seems correct and turn to the page on which the number beside it appears.

13. by using the product classification section
14. by using the index to the contents
15. either

\*Hereafter we shall use TR for Thomas Register of American Manufacturers.



Your answer is that you would find the names of companies other than the Bethlehem Steel Corporation that manufacture carbon steel by using the product classification section. This is not incorrect, but it is not the only choice. To find carbon steel, you would turn to "Steel" in the classified section. All kinds of steel are in one section in the proper alphabetical place under "S". However, this is not the only way to find the manufacturers of an article. Turn back to page 12 and select an answer that will be more complete.

Your answer is that you would use the index to the contents of TR to find the names of manufacturers of carbon steel. This is not incorrect, but it is not the only choice. If you look in the index under "C" for carbon, it will refer you to the page number on which you will find the list. However, this is not the only way to find the manufacturer of an article when using TR. Turn back to page 12 and select an answer that will be more complete.

Your answer is that you could use either the product classification section or the index to the contents to find a listing of companies other than the Bethlehem Steel Corporation that manufacture carbon steel and export it. You are correct. In the product classification section, product listings are arranged from A to Z according to noun names of the products; that is, all kinds of steel are in the proper alphabetical place under "S". Turn to Figure 7 (p. 7901) on the next page. Note the listings under Steel Carbon. Import-export information is included in parentheses after the street address of the company. You may also obtain the information by looking in the index under "C" for carbon. Turn to Figure 8 (p. 38 of the index); note that it refers you to p. 7901 in the product classification section. Then turn back to this page and go on to the question below.

#### Question

The patron now asks for the names of companies in Kentucky that manufacture carbon vanadium steel. Study Figure 7 and then select the correct answer. Turn to the page containing that number.

18. Green River Steel Corporation
19. Jessop Steel Company
20. No company in Kentucky manufactures carbon vanadium steel.

**CLASSIFIED LISTS—(Thomas Register, Dec., 1967 Ed.)—ADDENDA—End this Vol.**

(Steel Buildings—Con.)  
**W. VA.:** PARKERSBURGH  
**WALKER/PARKERSBURG DIV OF TEX-**  
**TRON INC** c/o Dept. ....AAAA  
**STEEL: BULLET CORE**  
**OHIO:** MASSILLON  
**EATON YALE & TOWNE INC** BELIANCE  
 Div 25 (T) Charles Av S.E. ....AAAA  
 (See our corporate product directory in  
 Vol. VII.)  
**PA:** PITTSBURGH  
 Crucible Steel Company Dept TR-12 Box 88  
 AAAAA  
**\*STEEL: BUMPER**  
 (see Other Classifications Specifying Appro-  
 priate Kinds)  
**OHIO:** CLEVELAND  
**REPUBLIC STEEL CORP** 1441-T Republic  
 Bldg. ....AAAA  
**PA:** PITTSBURGH  
**JONES & LAUGHLIN STEEL CORP** 483 Gate-  
 way Center .....AAAA  
**STEEL: CALORIZED**  
**PA:** PITTSBURGH  
 Calloy Co 407 Hill Av .....AAAA  
**PA:** TARENTUM  
**ALON PROCESSING INC** Grantham St. ....X  
**STEEL: CARBON**  
**CALIF:** OAKLAND  
 Kaiser Steel Corp 2379 Kaiser Center. ....AAAA  
**COLO:** DENVER  
 Midwest Steel & Iron Works Co 25 Larimer  
 (Warehouse) .....AAAA  
**CONN:** WALLINGFORD  
 Ubrich Stainless Steels & Special Metals Inc  
 1010 Old Colony Rd (Stainless Strip 17-7PH)  
 2AAA  
**DEL:** CLAYMONT  
 Phoenix Steel Corp .....AAAA  
**DEL:** EAST WILMINGTON  
 Delaware Tool Steel Corp. ....AAAA  
**GA:** ATLANTA  
 Tull J M Metals Co Inc 290 Marietta NW •  
 AAAAA  
**ILL:** CHICAGO  
 Apollo Metals Inc 6804 S Oak Park Av (Sheets  
 & Coils Polished to Bright Quality) ....AAA  
 Finkl A & Sons Co 2015 Southport Av. ....AAA  
 Gordon-Burke Steel Co 2400 S Ashland. ....AAA  
 Interlake Steel Corp 185th & Perry Av Dept  
 TR .....AAAA  
 International Harvester Co Wisconsin Steel  
 Div 180 N Michigan Av (Bar Mill Products, Sls,  
 Rounds & Squares Heat-treated, Flat-End  
 Size Angles, Spring Steel, Special Sections) ...AAA  
**LA SALLE STEEL CO** P O Box 6800-A Dept  
 T-19 (Cold Finished Bars) .....AAAA  
**MAPES & SPROWL STEEL CORP** 3404 N  
 Avenida A .....X  
 Pearson Jos T. & Son Inc Box 8000-A also  
 Morgan, Buffalo, Charlotte, Cincinnati, Cleve-  
 land, Detroit, Houston, Indianapolis, In-  
 spoils, Los Angeles, Milwaukee, New York,  
 Philadelphia, Pittsburgh, St. Louis, San  
 Francisco, Seattle, Spokane, Wallingford)  
 AAAAA

**PA:** PITTSBURGH  
**ALLEGHENY LUDLUM STEEL CORP** Dept  
 TR Oliver Bldg (Tool) .....AAAA  
 (Chrome and chrome plated stainless steels;  
 tool, carbon, electrical, valve, airbrake  
 steels, in all necessary forms and shapes.  
 Special analysis steel for any requirement.)  
**COLUMBIA-SUMNER** 21 Woodlark (Steel  
 Bars) .....AAAA  
 Crucible Steel Company Dept TR-12 Box 88  
 AAAAA  
**Follansbee Metals Co** P O Box 1709. ....AAAA  
**JONES & LAUGHLIN STEEL CORP** 483 Gate-  
 way Center .....AAAA  
**LEVINSON STEEL CO THE LEVINSON BROS**  
 AAAAA  
**Pittsburgh Steel Co** 1070 Grant Bldg. ....AAAA  
**Stanton Steel Corp** Nixon Rd Allegheny In-  
 dustrial District (Whse.) .....X  
**United States Steel Corp** 525 William Penn Pl  
 Wickett Steel Div 1300 Purter Bldg (Bars &  
 Shapes, Cold Drawn & Cold Finished)  
 AAAAA  
**PA:** READING  
 Carpenter Steel Co 150 W Bern (Tool, etc.)  
 AAAAA  
**PA:** ROYERSFORD  
**CANN & SAUL STEEL CO** 4th & Spruce Sts  
 (Forgings) .....AAAA  
**PA:** SHARON  
 Sharon Steel Corp Drawer 537 .....AAAA  
**PA:** VERONA  
**UNION SPECIALTY STEEL CASTING CORP**  
 Jones St .....AAAA  
**PA:** WASHINGTON  
**JESBOP STEEL CO** 638 Green (Tool) .....AAA  
 (Selected and graded tempers for every pur-  
 pose.)  
**TENN:** KNOXVILLE  
 Knoxville Iron Co Lonsdale & Van Sta. ....AAA  
**TEXAS:** LONGVIEW  
 Le Tourneau R G Inc 4014 S MacArthur. ....AAA  
**TEXAS:** SAN ANTONIO  
 Southern Steel Co P O Box 2021. ....AAA  
**STEEL: CARBON MOLYBDENUM**  
 (see Steel: Alloy)

**ASTM • ALLOY • ASME**  
**MILLS-WOLF STEEL CO.**  
 Plate • Heads • Flanges • Fittings • Shapes • Pipe  
 6 INTERSTATE ROAD • BEDFORD, OHIO  
 Phone: 232-1300 (Area Code 216) • TWX: 510-427-2271  
 7721T PINEMONT AV AND HOLLAND STS. 77040  
 DDD 713-HO 2-2801 • TWX 910-881-3575

**STEEL: CARBON VANADIUM**  
**ILL:** CHICAGO  
 Kink A & Sons Co 2013 Southport Av. ....AAA  
**ILL:** CHICAGO HEIGHTS  
 Columbia Tool Steel Co 500 Lincoln Hwy. ....AAA  
**KY:** OWENSBORO  
 Green River Steel Corp .....AAAA  
**N J:** LYNDHURST  
 Benedict-Miller Inc foot of Marin Av. ....AAA  
**N Y:** CARLE PLACE LI  
 Albrico Metals Corp 219 Westbury Av. ....A  
**N Y:** COLLEGE POINT  
 Advanced York Inc 15-45 130th .....A  
**N Y:** NEW YORK CITY  
 Mine A & Co Inc 68 W 44th. ....AA  
**OHIO:** CLEVELAND  
**REPUBLIC STEEL CORP** 1441-T Republic  
 Bldg. ....AAAA  
**OHIO:** WARREN  
 Copperweld Steel Co Aristoloy Steel Div 4039  
 Mahoning Av .....AAAA  
**PA:** BETHLEHEM  
 Bethlehem Steel Corp .....AAAA  
**PA:** BRAEBURN  
 Braeburn Alloy Steel Div Continental Copper  
 & Steel Indus Inc .....AAAA  
**PA:** CORRY  
 McInnes Steel Co 3441 E Main. ....AAAA  
**PA:** FRIE  
 Erie Forge & Steel Corp 1300 W 16th. ....AAAA  
**PA:** LATROBE  
 LATROBE STEEL CO 2126 Ligonier (Drill  
 Rod & Tool) .....AAAA  
**VASCO (FORMERLY VANADIUM) ALLOYS**

**STEEL PRODUCTS**  
 Wire Rods, Merchant Bars,  
 Structural Shapes, Cold Rolled Coils and Sheets,  
 Galvanized Coils and Sheets

**INTERNATIONAL SELLING CORP.**  
 Dept. T • 220 E. 42nd St. • New York, N. Y. 10017

Lehigh Steel Corp Bethune & Greenwich Sts  
 Liberty Steel & Metals Corp Time & Life  
 Bldg Rockefeller Center .....X  
 Paquet M & Co 15-19 Battery Pl. ....A  
**UNIT STEEL CORP** 51-A Chambers (Tool  
 Steel) .....X  
**N Y:** NORTH TONAWANDA  
 Roblin Steel Corp 1001 East Av. ....AAAA  
**N Y:** ROME  
**ROME STRIP STEEL CO** INC Henry & Hin-  
 man Sts (Cold Rolled Strip) .....AA  
**OHIO:** BEDFORD  
**MILLS-WOLF STEEL CO** 6 Interstate Rd  
 Carbon Moly. ASME & ASTM. ....B  
**OHIO:** CANTON  
**TIMKEN ROLLER BEARING CO TRV**  
**STEEL & TUBE DIV** (Seamless Tubing)  
 AAAAA  
**OHIO:** CLEVELAND  
 American Tank Fabricating Co 12312 Elm-  
 wood Av .....AAA  
**REPUBLIC STEEL CORP** 1441-T Republic  
 Bldg  
**UNIVERSAL GRINDING CORP** 2128 Scran-  
 ton at Train (Bar-Turned, Ground & Polish-  
 ed) .....X  
 Universal Steel Co The 6602 Grant Av. ....X  
**OHIO:** MIDDLETOWN  
**ARNCO STEEL CORPORATION** 1939 Armo

**CARBON STEEL**  
 BARS, STRUCTURALS, PLATES, SHEETS AND  
 STRIP, TUBING, REINFORCING, ETC.  
**CARBON RYERSON**  
 Boston, Buff, Cheri,  
 Cleveland, Erie, Gary,  
 Newark, N. C., L. A., Miller, Missis, N. Y., Philadelphia,  
 San Francisco, Seattle, Spokane, St. Louis, Wallingford

Steel Steel Co 3715 S Kedzie Av .....AAA  
**U S STEEL SUPPLY DIV UNITED STATES**  
**STEEL CORP** 1525 E Torrence Av Dept T  
 Warehouses at: Baltimore, Birmingham,  
 Canton, Chicago, Cleveland, Dallas, St.  
 Louis, Memphis, Milwaukee, Mobile, Ill.,  
 New York, Philadelphia, Pittsburgh, Port-  
 land, Ore., St. Paul, San Francisco, San  
 Jose, Seattle, Spokane, Hartford, Kansas  
 City, Houston, Indianapolis) .....AAAA  
**Ziv Steel & Wire Co** 2940-52 W Harrison (Tool

International Harvester Co Wisconsin Steel  
Div 140 N Michigan Av (Bar Mill Products,  
Rounds & Squares, Hexagons, Flats, Bar  
Size Angles, Spring Steel, Special Sections)  
AAAA  
LA SALLE STEEL CO P O Box 6800-A Dept  
T-15 (Cold Finished Bars) .....AAAA  
MAYES & SPROWL STEEL CORP 3404 N X  
Avenida Av .....AAAA  
Person Jos T & Son Inc Box 8800-A (also  
Boston, Buffalo, Charlotte, Cincinnati, Cleve-  
land, Dallas, Detroit, Houston, Indian-  
apolis, Los Angeles, Milwaukee, New York,  
Philadelphia, Pittsburgh, St. Louis, San  
Francisco, Seattle, Spokane, Wallingford)  
AAAA

**CARBON STEEL**  
BARS, STRUCTURALS, PLATES, SHEETS AND  
STRIP, TUBING, REINFORCING, ETC.  
Bessemer, Buff. Steel,  
Buckley, Carbon,  
Dorr, Galvanneal, Hot,  
Inconel, K. C., L. A., Mild, Manganese, N. Y., Palis, Pines,  
Rockwell, S. C., S. I., S. L., S. M., S. P., S. R., S. T., S. U.,  
San Francisco, Seattle, Spokane, St. Louis, Wallingford

Steel Steel Co 3715 S Kedzie Av .....AAAA  
U S STEEL SUPPLY DIV UNITED STATES  
STEEL CORP 1335 S Terrace Av Dept T  
(Warehouses at: Baltimore, Birmingham,  
Boston, Chicago, Cleveland, Dallas, St.  
Louis, Memphis, Milwaukee, Moline, Ill.,  
Newark, Philadelphia, Pittsburgh, Port-  
land, Ore., St. Paul, Seattle, Los Angeles,  
San Francisco, Phoenix, Hartford, Kansas  
City, Houston, Indianapolis) .....AAAA  
Zip Steel & Wire Co 3940-52 W Harrison (Tool  
& Die) .....AAAA  
ILL: DESPLAINES

Deall CO 166 N Laurel Av (Low Carbon,  
Precision Green' Tool & Die Steel) .....AAAA  
ILL: EVANSTON  
Gordon-Burke Steel Co 2102 Greenwood .....A  
ILL: FRANKLIN PARK  
Precision Steel Warehouse Inc 3500 N Wolf  
Rd (Sheet & Strip) .....AAAA  
Wolf Benjamin & Co 11307 Franklin Av .....AA  
ILL: HARVEY

Bliss & Laughlin Steel Co 263 E 155th (Bras,  
Cold Finished Only) .....AAAA  
ILL: PARK RIDGE  
Reynolds Aluminum Supply Co 323 W Touhy  
Av (Rod, Sheet, Plate, Bar & Structural)  
AAAA  
KY: OWENSBORO  
Greco River Steel Corp .....AAAA  
MD: CUMBERLAND  
Cumberland Steel Co 100 William (Turned &  
Ground) .....AAA

MASS: FITCHBURG  
Simonds Saw and Steel Div Wallace-Murray  
Corp 510 Safety Fund Bank Bldg (Low  
Carbon, Precision Ground) .....AAAA  
MASS: RANDOLPH  
WARD STEEL CO Randolph Industrial Park  
(High Carbon & Low-Carbon) .....AAAA  
MICH: DETROIT  
DETROIT FLAME HARDENING CO 17644  
Mc Elliott Av .....AAA  
MO: ST LOUIS  
Laclede Steel Co Arcade Bldg 8th & Olive  
Sts .....AAAA  
Missouri: Rolling Mill Corp Manchester &  
Eccoff Sts .....AAAA  
N H: SALEX  
Zurback of N H Willow St .....AAAA

N J: EDISON  
Admore Products Inc P O Box 327-T (Duc-  
tile Flat Metals, Textured, Embossed, Pat-  
terned, Perforated) .....AAAA  
Berry Steel Corp The P O Box 327-T .....AAAA  
N J: ELIZABETH  
MURRAY A B CO INC P O Box 476 (Tubes,  
Bar Products, Tubes & Pipe, Stainless Steel  
Pipe & Tubing, Beamless & Welded Valves  
& Fittings) .....AAAA

(Instructions, inside front cover)

**STEEL PRODUCTS**  
Wire Rods, Merchant Bars,  
Structural Shapes, Cold Rolled Coils and Sheets,  
Galvanized Coils and Sheets

**INTERNATIONAL SELLING CORP.**  
Dept. T • 220 E. 42nd St. • New York, N. Y. 10017  
Lehigh Steel Corp Bethune & Greenwich Sts  
Liberty Steel & Metals Corp Time & Life  
Ridg Rockefeller Center .....AAAA  
UNIT STEEL CORP 51-A Chambers (Tool)  
Paquet M & Co 15-19 Battery Pl .....A  
N Y: NORTH TONAWANDA  
Roblin Steel Corp 1001 East Av .....AAAA  
N Y: ROME  
ROME STRIP STEEL CO INC Henry & Hin-  
man Sts (Cold Rolled Strip) .....AA  
OHIO: BEDFORD  
MILLS-WOLF STEEL CO 6 Interstate Rd  
Carbon Moly, A52E & ASTM) .....B  
OHIO: CANTON  
TIMKEN ROLLER BEARING CO THE  
STEEL & TUBE DIV (Seamless Tubing)  
AAAA

OHIO: CLEVELAND  
American Tank Fabricating Co 12312 Elm-  
wood Av .....AAA  
REPUBLIC STEEL CORP 1441-T Republic  
Bldg .....AAAA  
UNIVERSAL GRINDING CORP 2198 Scrar-  
ton at Train (Bar-Turned, Ground & Polish-  
ed) .....A  
Universal Steel Co The 6802 Grant Av .....X  
OHIO: MIDDLETOWN  
ARMCO STEEL CORPORATION 189 Armo  
Av (See our insert at Steel Sheets; Zinc Coated.)  
AAAA  
OHIO: ORWELL  
Champion Steel Co .....AAAA  
Orville Forge & Steel Co .....AAAA  
OHIO: WARREN  
Cleveland Steel Co Artotloy Steel Div 4089  
Maboning Av .....AAAA  
OHIO: YOUNGSTOWN  
YOUNGSTOWN STEEL CO 1839 Wilson Av .....AA  
YOUNGSTOWN SHEET & TUBE CO 7669  
Market (Open Hearth) .....AAAA  
PA: BETHLEHEM  
Bethlehem Steel Corp .....AAAA  
PA: COATESVILLE  
Luzena Steel Co 1801 Services Bldg (Plates)  
AAAA

PA: CONSHOHOCKEN  
ALAN WOOD STEEL CO Wood Rd .....AAAA  
PA: CORRY  
Widts 1/4" - 20" Carbon to S.A.E. 1080) .....AAAA  
MEYNERS STEEL CO 3441 E Main .....AAAA  
PA: ERIZ  
Eriz Forge & Steel Corp 1900 W 16th .....AAAA  
PA: LATROBE  
LATROBE STEEL CO 2186 Ligonier (Drill  
Rod & Tool) .....AAAA  
Vanco (Formerly Vanadium-Alloys Steel Co)  
(Tool) .....AAAA  
PA: McKESPOET  
Tyzart Steel Products Co Inc David & Wal-  
nut Sts (Warehouse) .....AAAA  
PA: MONACA  
PITTSBURGH TOOL STEEL WIRE CO  
Franky St (Cold Finished, Low) .....AAAA  
PA: NEW CASTLE  
Blair Strip Steel Co Thomas Bldg (Cold  
Finished to 1/2" Width 1/2"-20" Carbon to  
S.A.E. 1080) .....AAAA  
PA: NEW KENSINGTON  
American Shim Steel Co 890 Best (Low or  
High Carbon Strip) .....A  
PA: PHILADELPHIA  
EDGEMORE STEEL CO P O Box 6065 (Distri-  
butors Co in Western Tool, etc.) .....AAAA  
PHILADELPHIA STEEL & WIRE CORP  
Charles Rd .....AAAA  
Potts Horace T Co 588 E Erie Av .....AAAA

PA: PHILADELPHIA  
Edgemoor Steel Co P O Box 6065 (Distri-  
butors Co in Western Tool, etc.) .....AAAA  
PHILADELPHIA STEEL & WIRE CORP  
Charles Rd .....AAAA  
Potts Horace T Co 588 E Erie Av .....AAAA

PA: PHILADELPHIA  
Edgemoor Steel Co P O Box 6065 (Distri-  
butors Co in Western Tool, etc.) .....AAAA  
PHILADELPHIA STEEL & WIRE CORP  
Charles Rd .....AAAA  
Potts Horace T Co 588 E Erie Av .....AAAA

PA: PHILADELPHIA  
Edgemoor Steel Co P O Box 6065 (Distri-  
butors Co in Western Tool, etc.) .....AAAA  
PHILADELPHIA STEEL & WIRE CORP  
Charles Rd .....AAAA  
Potts Horace T Co 588 E Erie Av .....AAAA

PA: PHILADELPHIA  
Edgemoor Steel Co P O Box 6065 (Distri-  
butors Co in Western Tool, etc.) .....AAAA  
PHILADELPHIA STEEL & WIRE CORP  
Charles Rd .....AAAA  
Potts Horace T Co 588 E Erie Av .....AAAA

PA: PHILADELPHIA  
Edgemoor Steel Co P O Box 6065 (Distri-  
butors Co in Western Tool, etc.) .....AAAA  
PHILADELPHIA STEEL & WIRE CORP  
Charles Rd .....AAAA  
Potts Horace T Co 588 E Erie Av .....AAAA

7901

**WHEELS-WOLF STEEL CO.**  
6 INTERSTATE ROAD • BEDFORD, OHIO  
Phone: 232-1300 (Area Code 216) • TWX 910-47-2271  
SOUTHWEST AND WESTERN STATES  
77211 PINEBLT • HOUSTON, TEXAS 77040  
DDD 713-HO 2-2601 • TWX 910-861-5575

**STEEL: CARBON VANADIUM**

ILL: CHICAGO  
Kirkland & Sons Co 2013 Southport Av .....AAAA  
ILL: CHICAGO HEIGHTS  
Columbia Tool Steel Co 500 Lincoln Hwy .....AAAA  
KY: OWENSBORO  
N Green River Steel Corp .....AAAA  
N J: LYNDHURST  
N J: LYNDHURST  
N J: LYNDHURST  
N J: LYNDHURST  
N Y: COLLEGE POINT  
N Y: NEW YORK CITY  
N Y: NEW YORK CITY  
OHIO: CLEVELAND  
REPUBLIC STEEL CORP 1441-T Republic  
Bldg .....AAAA  
OHIO: WARREN  
Copperweld Steel Co Artotloy Steel Div 4089  
Maboning Av .....AAAA  
PA: BETHLEHEM  
Bethlehem Steel Corp .....AAAA  
PA: BRAEBURN  
Braeburn Alloy Steel Div Continental Copper  
& Steel Indus Inc .....AAAA  
PA: CORRY  
McNINNES STEEL CO 3441 E Main .....AAAA  
PA: ERIE  
Erie Forge & Steel Corp 1300 W 16th .....AAAA  
PA: LATROBE  
LATROBE STEEL CO 2186 Ligonier (Drill  
Rod & Tool) .....AAAA  
VANCO (FORMERLY VANADIUM-ALLOYS  
STEEL CO) (Tool) .....AAAA  
PA: PITTSBURGH  
Allegheny Ludlum Steel Corp Oliver Bldg  
Dept TR-1 .....AAAA  
Cruible Steel Company Dept TR-12 Box 84  
(Tool) .....AAAA  
FIRTH STEELING INC 3115 Forbes Av  
(Tool) .....AAAA  
United States Steel Corp 625 William Penn Pl  
AAAA

PA: PITTSBURGH  
Allegheny Ludlum Steel Corp Oliver Bldg  
Dept TR-1 .....AAAA  
Cruible Steel Company Dept TR-12 Box 84  
(Tool) .....AAAA  
FIRTH STEELING INC 3115 Forbes Av  
(Tool) .....AAAA  
United States Steel Corp 625 William Penn Pl  
AAAA  
PA: READING  
Carpenter Steel Co 160 W Bern .....AAAA  
PA: RHARON  
Sharon Steel Corporation Drawer 337 .....AAAA  
PA: WASHINGTON  
JESCOF STEEL COMPANY 688 Green .....AAAA

ILL: CHICAGO  
LA SALLE STEEL CO P O Box 6800-A Dept  
T-15 .....AAAA  
Persons Jos T & Son Inc Box 8800-A (also  
Boston, Buffalo, Charlotte, Cincinnati, Cleve-  
land, Dallas, Detroit, Houston, Indian-  
apolis, Los Angeles, Milwaukee, New York,  
Philadelphia, Pittsburgh, St. Louis, San  
Francisco, Seattle, Spokane, Wallingford)  
AAAA  
U S Steel Supply Div United States Steel Corp  
1335 S Terrace Av Dept T (Warehouses  
at: Baltimore, Birmingham, Boston, Chi-  
cago, Cleveland, Dallas, St. Louis, Memphis,  
Milwaukee, Moline, Ill., Newark, Phila-  
delphia, Pittsburgh, Portland, Ore., St. Paul,  
Seattle, Los Angeles, San Francisco, Hou-  
ston, Phoenix, Hartford, Kansas City, In-  
dianapolis) .....AAAA  
MASS: CAMBRIDGE  
Whetlock Lovejoy & Co Inc 125 Sidney .....AAAA  
N J: LYNDHURST  
Beneliet-Miller Inc foot of Maris Av .....AAA  
N Y: BEDFORD HILLS  
Meynars Inc-Steel Div 146 Railroad Av .....X  
N Y: CARLE PLACE 11  
Abraco Metals Corp 219 Westbury Av (Tool  
Steel Grades) .....AAAA  
N Y: NEW YORK CITY  
Frasne Peter A & Co Inc 19 Grand (Bar, Rod,  
Tube, Pipe, Sheet, etc.) .....AAAA

ILL: CHICAGO  
LA SALLE STEEL CO P O Box 6800-A Dept  
T-15 .....AAAA  
Persons Jos T & Son Inc Box 8800-A (also  
Boston, Buffalo, Charlotte, Cincinnati, Cleve-  
land, Dallas, Detroit, Houston, Indian-  
apolis, Los Angeles, Milwaukee, New York,  
Philadelphia, Pittsburgh, St. Louis, San  
Francisco, Seattle, Spokane, Wallingford)  
AAAA  
U S Steel Supply Div United States Steel Corp  
1335 S Terrace Av Dept T (Warehouses  
at: Baltimore, Birmingham, Boston, Chi-  
cago, Cleveland, Dallas, St. Louis, Memphis,  
Milwaukee, Moline, Ill., Newark, Phila-  
delphia, Pittsburgh, Portland, Ore., St. Paul,  
Seattle, Los Angeles, San Francisco, Hou-  
ston, Phoenix, Hartford, Kansas City, In-  
dianapolis) .....AAAA  
MASS: CAMBRIDGE  
Whetlock Lovejoy & Co Inc 125 Sidney .....AAAA  
N J: LYNDHURST  
Beneliet-Miller Inc foot of Maris Av .....AAA  
N Y: BEDFORD HILLS  
Meynars Inc-Steel Div 146 Railroad Av .....X  
N Y: CARLE PLACE 11  
Abraco Metals Corp 219 Westbury Av (Tool  
Steel Grades) .....AAAA  
N Y: NEW YORK CITY  
Frasne Peter A & Co Inc 19 Grand (Bar, Rod,  
Tube, Pipe, Sheet, etc.) .....AAAA

ILL: CHICAGO  
LA SALLE STEEL CO P O Box 6800-A Dept  
T-15 .....AAAA  
Persons Jos T & Son Inc Box 8800-A (also  
Boston, Buffalo, Charlotte, Cincinnati, Cleve-  
land, Dallas, Detroit, Houston, Indian-  
apolis, Los Angeles, Milwaukee, New York,  
Philadelphia, Pittsburgh, St. Louis, San  
Francisco, Seattle, Spokane, Wallingford)  
AAAA  
U S Steel Supply Div United States Steel Corp  
1335 S Terrace Av Dept T (Warehouses  
at: Baltimore, Birmingham, Boston, Chi-  
cago, Cleveland, Dallas, St. Louis, Memphis,  
Milwaukee, Moline, Ill., Newark, Phila-  
delphia, Pittsburgh, Portland, Ore., St. Paul,  
Seattle, Los Angeles, San Francisco, Hou-  
ston, Phoenix, Hartford, Kansas City, In-  
dianapolis) .....AAAA  
MASS: CAMBRIDGE  
Whetlock Lovejoy & Co Inc 125 Sidney .....AAAA  
N J: LYNDHURST  
Beneliet-Miller Inc foot of Maris Av .....AAA  
N Y: BEDFORD HILLS  
Meynars Inc-Steel Div 146 Railroad Av .....X  
N Y: CARLE PLACE 11  
Abraco Metals Corp 219 Westbury Av (Tool  
Steel Grades) .....AAAA  
N Y: NEW YORK CITY  
Frasne Peter A & Co Inc 19 Grand (Bar, Rod,  
Tube, Pipe, Sheet, etc.) .....AAAA

ILL: CHICAGO  
LA SALLE STEEL CO P O Box 6800-A Dept  
T-15 .....AAAA  
Persons Jos T & Son Inc Box 8800-A (also  
Boston, Buffalo, Charlotte, Cincinnati, Cleve-  
land, Dallas, Detroit, Houston, Indian-  
apolis, Los Angeles, Milwaukee, New York,  
Philadelphia, Pittsburgh, St. Louis, San  
Francisco, Seattle, Spokane, Wallingford)  
AAAA  
U S Steel Supply Div United States Steel Corp  
1335 S Terrace Av Dept T (Warehouses  
at: Baltimore, Birmingham, Boston, Chi-  
cago, Cleveland, Dallas, St. Louis, Memphis,  
Milwaukee, Moline, Ill., Newark, Phila-  
delphia, Pittsburgh, Portland, Ore., St. Paul,  
Seattle, Los Angeles, San Francisco, Hou-  
ston, Phoenix, Hartford, Kansas City, In-  
dianapolis) .....AAAA  
MASS: CAMBRIDGE  
Whetlock Lovejoy & Co Inc 125 Sidney .....AAAA  
N J: LYNDHURST  
Beneliet-Miller Inc foot of Maris Av .....AAA  
N Y: BEDFORD HILLS  
Meynars Inc-Steel Div 146 Railroad Av .....X  
N Y: CARLE PLACE 11  
Abraco Metals Corp 219 Westbury Av (Tool  
Steel Grades) .....AAAA  
N Y: NEW YORK CITY  
Frasne Peter A & Co Inc 19 Grand (Bar, Rod,  
Tube, Pipe, Sheet, etc.) .....AAAA

ILL: CHICAGO  
LA SALLE STEEL CO P O Box 6800-A Dept  
T-15 .....AAAA  
Persons Jos T & Son Inc Box 8800-A (also  
Boston, Buffalo, Charlotte, Cincinnati, Cleve-  
land, Dallas, Detroit, Houston, Indian-  
apolis, Los Angeles, Milwaukee, New York,  
Philadelphia, Pittsburgh, St. Louis, San  
Francisco, Seattle, Spokane, Wallingford)  
AAAA  
U S Steel Supply Div United States Steel Corp  
1335 S Terrace Av Dept T (Warehouses  
at: Baltimore, Birmingham, Boston, Chi-  
cago, Cleveland, Dallas, St. Louis, Memphis,  
Milwaukee, Moline, Ill., Newark, Phila-  
delphia, Pittsburgh, Portland, Ore., St. Paul,  
Seattle, Los Angeles, San Francisco, Hou-  
ston, Phoenix, Hartford, Kansas City, In-  
dianapolis) .....AAAA  
MASS: CAMBRIDGE  
Whetlock Lovejoy & Co Inc 125 Sidney .....AAAA  
N J: LYNDHURST  
Beneliet-Miller Inc foot of Maris Av .....AAA  
N Y: BEDFORD HILLS  
Meynars Inc-Steel Div 146 Railroad Av .....X  
N Y: CARLE PLACE 11  
Abraco Metals Corp 219 Westbury Av (Tool  
Steel Grades) .....AAAA  
N Y: NEW YORK CITY  
Frasne Peter A & Co Inc 19 Grand (Bar, Rod,  
Tube, Pipe, Sheet, etc.) .....AAAA

(Branches & Zip Codes—A-Z Vol. VII)

Figure 7. Thomas Register, Product Classifications, page 7901



Paints ..... 5681  
 Paper ..... 5643  
 Paper Colors ..... 1623  
 Paper Machy. .... 4536  
 Paste for Welding ..... 5710  
 Platoon Rings, 5625  
 Platoon Rings ..... 5710  
 Platoon ..... 6750  
 Platen ..... 6170  
 Presses ..... 6250  
 Pressers, Carb. Re. .... 6701  
 Preventers, Carb. .... 1640  
 Preventing Com. .... 6250  
 Printing Presses ..... 1043  
 Products ..... 1043  
 Raisers for Steel ..... 6658  
 Railing Graphite, look among Graphite ..... 6701  
 Miners & Refiners, 3506  
 etc. .... 6701  
 Removers, look among ..... 6701  
 Removers, Machine, 6772  
 Removal Abrasive ..... 3506  
 Grains ..... 2871  
 Removers, Filters ..... 6701  
 Removers, Burners ..... 627  
 Removing Burners, 678; see also Ap-  
 paratus; Carbon ..... 170  
 Removing Chains, see  
 Removers; Carbon, 6701  
 Removing Compounds, see Removers; Car-  
 bon, 6701  
 Removing Devices, 6701  
 see Removers ..... 6701  
 Removing Lintids, see  
 Removers; Carbon, 6701  
 Restlers, 6726; see  
 also Restlers ..... 6721  
 Restoration Fur-  
 nace ..... 3134  
 Rods ..... 6626  
 Rolls, see Paper; Roll, ..... 6642  
 Adding Machines, 6642  
 Scrapers ..... 7079  
 Seals ..... 7276  
 Slip Taps ..... 6165  
 Steel Bars, see Steel  
 Bar, Carbon Steel, 7400  
 Steel Castings 1231;  
 also look among ..... 1231  
 Carthage, Steel ..... 1231  
 Steel Forgings ..... 3057  
 Steel Hardening Fur-  
 nace ..... 3145  
 Steel Test, see Test, ..... 6005  
 Iron & Steel, Struc-  
 tural Work ..... 6708  
 Steel Wire ..... 6553  
 Tetrahydroide ..... 1044  
 Tetrachloride ..... 1044  
 Tissue, see Paper; ..... 5643  
 Tonic, see Tonic; ..... 6724  
 Diamond, Diamond ..... 6724  
 Pointed, etc. .... 6724  
 Tubes Rheumatic ..... 6724  
 Valves ..... 6553  
 Vanadium Steel ..... 7001  
 Vanadium Steel ..... 6419  
 CARBONACEOUS ZENITH ..... 148  
 CARBONATE OF  
 AMMONIA ..... 302  
 of Barium ..... 317  
 of Barium ..... 317  
 Calcium, look among  
 Calcium; Ralts of 971  
 Calcium, see Calcium;  
 Carbonate ..... 971

Acid Gas, see Gas; ..... 3130  
 Acid Gas, see Gas; ..... 3130  
 Carbonic ..... 3197  
 Acid Gas Compress-  
 ions ..... 1054  
 Acid Gas Condensers,  
 look among Con-  
 densers; Gas ..... 1703  
 Gas Bottle Testing, 6555  
 Gas Bottle Testing, 6555  
 Machy., see Test, ..... 6701  
 err: Carbonic Gas ..... 1045  
 Bottle (Machines), 5555  
 Gas Packing ..... 5524  
 Gas Regulators ..... 6650  
 Ice, see Carbon Diox-  
 ide; Solid ..... 1043  
 Carbonalizing Furnaces, 3134  
 Carbonalizing Paper, see  
 Paper; Carbon ..... 5434  
 CARBONIZERS, see  
 Machy.; Carbonizing ..... 4536  
 Assistant ..... 1045  
 Boxes ..... 1043  
 Compounds ..... 1045  
 Furnaces ..... 3134  
 Kinds ..... 4142  
 Machinery, 4536;  
 also see Furnaces ..... 3134  
 Carbonizing ..... 3134  
 Paper, look among ..... 5434  
 Paper Mfrs., 5434  
 Pota., see Boxes; Car-  
 bonizing of Car-  
 bonizing ..... 604  
 Retorts ..... 6724  
 Carbonyl Chloride, see  
 Gas; Phosgene ..... 3100  
 Carborundum Brick, see  
 Brick; Abrasive, ..... 744  
 Cement, look among  
 Cement; High  
 Temperature Re-  
 fractory ..... 1234  
 Mufflers, look among  
 Mufflers ..... 6276  
 Paper, see Paper; ..... 6659  
 Abrasive ..... 6659  
 Straps, look among  
 Straps; Razor &  
 Razor Blade ..... 6653  
 Wheels, look among  
 Wheels; Grinding ..... 9203  
 Carboxy Methyl Cellu-  
 lose ..... 1045  
 Carboxymethylcellulose  
 Sodium ..... 7544  
 CAMBOYN ..... 1045  
 Carboy & Barrel Dumping  
 Elevators ..... 2552  
 Bottles ..... 664  
 Boxes ..... 604  
 Carriers ..... 1053  
 Cradles, see Inclina-  
 tors; Carboy Can,  
 Bottle, Drainers, ..... 3051  
 etc. .... 3051  
 Drainers, 2063; see  
 also Inclina-  
 tors; Carboy Can, Bottle,  
 Drainers, etc. .... 3051  
 Filters, Machine ..... 2927  
 Holders, see Inclina-  
 tors; Carboy Can,  
 Bottles, Drainers, ..... 3051  
 etc. .... 3051  
 Inclina-  
 tors, see Appara-  
 tus; Burners, Car-  
 bon Buring ..... 170  
 Rockers, see Inclina-  
 tors; Carboy Can,  
 Bottle, Drainers, ..... 3051  
 etc. .... 3051

Figure 8. Thomas Register, Index, page 38

27



Your answer is the Green River Steel Corporation. Correct.  
Figure 7, page 7901 of the classified product list showed Steel:  
Carbon Vanadium. Under Kentucky, Owensboro, you found the name of  
the manufacturer. Turn to the question on page 22.



Your answer is that the Jessop Steel Company of Kentucky manufactures carbon vanadium steel. Wrong. You have no basis for this answer. Study Figure 7; note that under each product classification the names of manufacturers are arranged alphabetically--first by States, second by cities and towns. Return to the question on page 15 and select the correct answer.

Your answer is that no company in Kentucky manufactures carbon vanadium steel. Study Figure 7; note that under each product classification the names of manufacturers are arranged alphabetically--first by States, second by cities and towns. Then, go back to page 15 and make another choice.

No where in this lesson were you referred to this page. Please return to the previous question on page 15 or continue on to page 22.

## Question

The patron asks if carbon vanadium steel is Green River Steel Corporation's only product, and he asks what the corporation's approximate capital rating is. Select the best way of finding this information and turn to the page on which the answer is given.

- 23. Use the A-Z list of manufacturers.
- 26. Use the index to advertisers.
- 27. Use the product finding index.

Your answer is that you would use the A-Z list of manufacturers. This is correct. Turn the page to Figure 9 (page 446 of the A-Z list). Note that all products manufactured by the Green River Steel Corporation are listed. Go on to the next question.

#### Question

After referring to Figures 2 through 6 (if you need to), write the amount of capital assets indicated by the Green River Steel Corporation's AAAA rating in TR. Turn to page 25 to be sure you selected the correct amount, then go on to the question on page 29.

---

GREAT

"A-Z" LIST OF LEADING MANUFACTURERS — (Addenda End of this Section)

(Naming Home and Branch Offices, and in many instances individual Officers, etc. See explanation page 1)

GREAT—Continued

- Western Paint Mfg. Corp., 1207 W. 11th, Kansas City, Mo. (Br. at Fort Smith, Ark. & Chicago, Ill.).....AA
  - Western Stage Equipment Co. (S—Great Western Textiles), 1324 Grand Ave., Kansas City, Mo.....AA
  - Western Steel Co. (Steel Jobbers), 2402 W. 68th, Chicago, Ill. (Br. at Milwaukee, Wis.).....AA
  - Western Sugar Co. (S—Western Seed Production Corp.), 1330 16th St., Denver, Colo. (Factories at Brighton, Johnstown, Ovid, Brush, Eaton, Fort Collins, Fort Morgan, Greeley, Longmont, Loveland, Sterling & Windsor, Colo.; Bayard, Mitchell, Lyman, Gering & Scottbluff, Neb.; Billings, Mont.; Lovell & Wheatland, Wyo.) (Ca. "Sugar").....AAAA
  - Western Textiles (G Great Western Equip. Co.), 1324 Grand Ave., Kansas City, Mo.....X
  - Greater Mountain Chemical Co., Inc. (Metal Cleaning Compounds), 15 Jeremy, Salt Lake City, Utah (Br. at Little Rock, Ark.; Los Angeles, Calif.; Portland, Ore.; Houston, Texas; Seattle & Spokane, Wash.).....AA
  - N. Y. (Br. Plants at West Trenton, N. J.; Brooklyn, Middletown & New York, N. Y. & Philadelphia, Pa.).....AA
  - New York Glass Co., Plastic Div., 43 E. 30th, Brooklyn, N. Y.....AA
  - Greathouse, Glen A. Ph. D. (Analytical & Consulting Chemist), 102 N. Crystal Lake Drive, Orlando, Fla.....X
- GRAVES MACHINE TOOL CO., 2069 Eastern Ave., Cincinnati, Ohio 45202 (Phone: 751-0730—Area Code 513).....AA**  
(Milling Machines, Metal and Non-Metallic Gears, Reamer Drives, Special Machinery and Contract Machine Work)
- (A) Fay & Egan Co.  
(Ex. Ca. "Gematco") (P.) Edward R. Gabriel; (V. P.) William H. Graves; (S.) John T. Collops; (T.) Edward Moorhead; (Gen. S. M.) J. W. Stewart; (P. A.) J. Walcott.

- GREEN RIVER STEEL CORP., Owensboro, Ky. (Ingots, Billets, Slabs and Bars in Alloy, Carbon and Steels; Vacuum Degassing).....A
- Jessop Steel Co., Washington, Pa. (For District Sales Offices, see list under Jessop Steel Co. (Chmn. of Ed.) Frank B. Ruckley; (P.) J. R. Connell; (T.) Frank W. Martin; (Controller) G. D. Haezler; (Operations) David Lewis; (S. M.) George H. Chubb, Jr.; (P.) George W. Mawhinney.....A
- Shoe Mfg. Co. (S—Weber Shoe Co.), 980 Harrison Ave. (Roxbury, Boston, Mass. (Bakers' Machs.), 202 N. Miley Ave., Indianapolis, Ind. (Ca. "Greenco").....AA

**GREENBACK INDUSTRIES, INC., 2527 W. Maple at Carbor Birmingham, Mich. (Phone: 646-3300—Area Code 313), (Mfrs. of Non-Ferrous Metal Powders)**

- (Plant at Greenback, Tenn.) (P. & S. M.) Earl Lowe; (V. P.) G. M.) Harold Fortson; (S. & T.) C. Sutton.
- Greenberg Engineering Co. (Metallurgical Engines), 209 Rock Hill Bala Cynwyd, Pa. (Ca. "Elmington").....AA
- Manuel A. (Structural Steel Engineers, Fabricators & Erectors) Lewis Tower Bldg., Philadelphia, Pa.....AA
- Greenberg's, M. Sons (S—Josam Pacific Co.) (Fire Hydrants & Fire Section Connections), 767 Folsom at Allee, San Francisco, Cal. (Exp.).....AA

**GREENBRIER INSTRUMENTS—See Bendix Scientific Instruments Vacuum Div., Greenbrier Plant.**

- Greene, Arnold Testing Lab. Inc. (Jem Penetrometer Mfg. Co.) Natick, Mass.....AA
- Bros. Lumber Co., Elizabethtown, N. C.....AA
- Electronics, Inc. (Printed Circuits & Assemblies), 152 Oak St., Cranston, R. I.....AA



**GREENE, G. G. INCORPORATED, Greene Road, Warren, Pa. (Ph 723-5700—Area Code 814).....AA**  
(Manufacturers of Metal Specialties, Stampings, Wire for Cold Headed Parts, Hardware Items, Plastic Injection Molding Parts, and Wood Components. Also Suppliers of Compt Assemblies)

**GREENE, J. R. ASSOCIATES, INC., 25-T Amity St., Litch: Falls, N 07424 (Phone: 256-8789—Area Code 201).....AA**  
(Designers and Builders of Specialized Automated Machine and Equipment for Gas Fired Drying Systems)  
(Exp.) (P.) Robert Greene; (V. P.) John Greene; (S. & T.) A. V. Greene.

- L. Charlton, Mfg. Co. (Photographs), Chelmsford, Mass.....AA
- Line Mfg. Corp. (S—Marion Eng'g Prod.) (Paper Working Machinery), Marion, Ind.....AA
- M. J. Co. (S—Rollinger Corp.), 109 Smithfield, Pittsburgh, Pa. Machine Co. (Machine Knives), Bradley & Gordon Sta., Waco, N. Y.....AA
- Mfg. Co. (Gaskets; Sponge Rubber Products; Linings), 711 1/2 St., Philadelphia, Pa.....AA
- Mfg. Co. (Roll Forming, Stamping, Plating, etc.), 1028 Dwyer Ave., Racine, Wis. 53401.....AA
- Mfg. Corp. (Plastic Containers, Vials, etc.), 40 Washington West Orange, N. J. 07062.....AA
- Metal Products Inc. (Plastic Window Repair Material), 1009 Ave. Evanston, Ill. 60234.....AA
- Plastics Corp., Hope Valley, R. I.....AA
- Products Co., Inc. (S—Luill-A-Babe, Inc.), 370 7th Ave., New York, N. Y.....AA
- Ray, & Co., Inc. (Boats), 510 S. Byrne Rd., Toledo, Ohio.....AA
- Rubber Co. (G Ponn Machine Cutting Co.), 99 Broadway, Bridge, Mass.....AA

GREAT

- Western Paint Mfg. Corp., 1207 W. 11th, Kansas City, Mo. (Br. at Fort Smith, Ark. & Chicago, Ill.).....AA
  - Western Stage Equipment Co. (S—Great Western Textiles), 1324 Grand Ave., Kansas City, Mo.....AA
  - Western Steel Co. (Steel Jobbers), 2402 W. 68th, Chicago, Ill. (Br. at Milwaukee, Wis.).....AA
  - Western Sugar Co. (S—Western Seed Production Corp.), 1330 16th St., Denver, Colo. (Factories at Brighton, Johnstown, Ovid, Brush, Eaton, Fort Collins, Fort Morgan, Greeley, Longmont, Loveland, Sterling & Windsor, Colo.; Bayard, Mitchell, Lyman, Gering & Scottbluff, Neb.; Billings, Mont.; Lovell & Wheatland, Wyo.) (Ca. "Sugar").....AAAA
  - Western Textiles (G Great Western Equip. Co.), 1324 Grand Ave., Kansas City, Mo.....X
  - Greater Mountain Chemical Co., Inc. (Metal Cleaning Compounds), 15 Jeremy, Salt Lake City, Utah (Br. at Little Rock, Ark.; Los Angeles, Calif.; Portland, Ore.; Houston, Texas; Seattle & Spokane, Wash.).....AA
  - N. Y. (Br. Plants at West Trenton, N. J.; Brooklyn, Middletown & New York, N. Y. & Philadelphia, Pa.).....AA
  - New York Glass Co., Plastic Div., 43 E. 30th, Brooklyn, N. Y.....AA
  - Greathouse, Glen A. Ph. D. (Analytical & Consulting Chemist), 102 N. Crystal Lake Drive, Orlando, Fla.....X
- GRAVES MACHINE TOOL CO., 2069 Eastern Ave., Cincinnati, Ohio 45202 (Phone: 751-0730—Area Code 513).....AA**  
(Milling Machines, Metal and Non-Metallic Gears, Reamer Drives, Special Machinery and Contract Machine Work)
- (A) Fay & Egan Co.  
(Ex. Ca. "Gematco") (P.) Edward R. Gabriel; (V. P.) William H. Graves; (S.) John T. Collops; (T.) Edward Moorhead; (Gen. S. M.) J. W. Stewart; (P. A.) J. Walcott.

- Greb Co. (Service Tools, Equipment, etc.), Stoughton, Mass. (Ca. "Green").....AA
- Grebe, Hy C. & Co. (Yachts), 3250 N. Washenaw, Chicago, Ill.....AA
- Grecian Chemical Co. (S—The Olivo Co.) (Toilet Preps), 2080 E. Willard St., Philadelphia, Pa.....AA
- Greco Mfg. Corp. (S—Central Saw Co.) (Optical Jewelers & Watchmakers' Filers), 51 16th St., Brooklyn, N. Y.....AA
- Grede Foundries, Inc. (S—Engineering Castings, Inc.) (Grey Iron & Alloy Castings), 1341 S. 1st St., Milwaukee, Wis. (Br. Plants at Elk-Wart, Ind.; Wichita, Kans.; Iron Mountain, Mich.; Reedshurg, Wis.).....AA
- Green, A. P., Extracolors Co. (S—Bigelow-Lipak Corp., Illinois) A. P. Illinois Clay Products Co., A. P. Green Fire Brick Co. of Texas; A. P. Green Fire Brick Co. of Pa.; A. P. Green Fire Brick Co. of Mich.; A. P. Green Fire Brick Co., Ltd. (Canada); A. P. Green Fire Brick Co. of Wisconsin, Inc.; E. J. Bartlett Co., Green Blvd., Mexico, Mo. (Plants at Kimberly, Ala.; Little Rock, Ark.; Pueblo, Colo.; Macon, Ga.; Troy, Idaho; Granite City & Morris, Ill.; Taylor, Mich.; Mexico, Mo.; Woodbridge, N. J.; Jackson & Oak Hill, Ohio; Cilmex, Philadelphia & Trenton, Pa.; Sulphur Springs, Texas; Acton & Toronto, Ont.; Claybank, Sask., Can.) (Ca. "Greenco").....AAAA
- Ball Bearing Co., 9803 Harvard Ave., Cleveland, Ohio 44105.....AAAA
- Bay Awning & Tent Co. (S—Green Bay Industries), 1106 Main, Green Bay, Wis.....AAAA
- Bay Canning Corp., 1425 Main, Green Bay, Wis. 54305.....AA
- Bay Drop Forge Co., 1241 S. State, Green Bay, Wis.....AA
- Bay Food Co. (G Dean Foods Co.) (S—Budlong Pickle Div.), 889 School Pl., Green Bay, Wis. 54305.....AA
- Bay Foundry & Machine Works (Sewage Machy, Water Filters, etc.), 401 S. Broadway, Green Bay, Wis. (Ca. "Norsgreen").....AA
- Bay Gear Works, 548 Lawrence, Green Bay, Wis. 54302.....AA
- Bay Packaging, Inc. (S—Briggs Packaging Corp.), Kalamazoo Container Co., 831 Dohlon, Green Bay, Wis. (Br. at Franklin Park, Ill. & Wausau, Wis.).....AA
- Bay Paper & Pulp Co. (S—See Green Bay Packaging, Inc.).....AA
- Bay Plastics, Inc. (G Calvis Co.), 1028 N. Ashland Ave., Green Bay, Wis.....AA
- Bay Soap Co. (E. A. Meyer), 2099 Shawano Ave., Green Bay, Wis.....AA
- Bay Steel Tube Corporation (Welded Steel Tubing), 146 S. Broadway Green Bay, Wis.....AA
- Bros. Inc. (Steel Rule Dies), 213 Valley St., East Providence, R. I. 10011.....AA
- Chas. E. & Son, Inc. (Paint Brush Ferrules), 96 Passaic, Newark, N. J. 07103 (Br. at Elizabeth, N. J.).....AA
- Colonial, Inc. (Oil Burners, Furnaces, etc.), 322 S. W. 3rd, Des Moines, Iowa 50306 (Br. at Rockford, Ill. & Sioux Falls, S. D.).....AA
- Co. Div., The (G J. H. Dunning Corp.) (Wooden Boxes, Box Shooks), Bellows Falls, Vt. 05101.....AAAA
- Co. Inc., The (G J. H. Dunning Corp.) (Wooden Boxes, Box



Parts, and Wood Components. Also Suppliers of Comp Assemblies)

**GREENE, J. R., ASSOCIATES, INC., 25-T Amity St., Little Falls, N. Y. 07424 (Phone: 256-8789—Area Code 201)**  
 (Designers and Builders of Specialized Automated Mach and Equipment for Gas Fired Drying Systems)  
 (Exp.) (P.) Robert Greene; (V. P.) John Greene; (S. & A.) A. V. Greene.

L. Charlton, Mfg. Co. (Photographs), Chelmsford, Mass.  
 Line Mfg. Corp. (S—Marion Eng'g Prod.) (Paper Working Machinery), Marion, Ind.  
 M. J. Co. (S—Bollinger Corp.), 109 Smithfield, Pittsborough, N. C.  
 Machine Co. (Machine Knives), Bradley & Gordon Sts, Watertown, N. Y.  
 Mfg. Co. (Gaskets; Sponge Rubber Products; Linings), 7011 St. Philadelphia, Pa.  
 Mfg. Co. (Roll Forming), Stamping, Flatting, etc., 1028 Deerpark Ave., Racine, Wis. 53401  
 Mfg. Corp. (Plastic Containers, Vials, etc.), 40 Washington St., West Orange, N. J. 07082  
 Metal Products Inc. (Plastic Window Repair Material), 1009 E. Ave., Evanston, Ill. 60204  
 Plastics Corp., Hope Valley, R. I.  
 Products Co., Inc. (S—Lull-A-Babe, Inc.), 370 7th Ave., New York, N. Y.  
 Ray & Co., Inc. (Boats), 510 S. Byrne Rd., Toledo, Ohio.  
 Rubber Co. (Ponn Machine Cutting Co.), 99 Broadway, Cambridge, Mass.  
 Steel & Wire Co., Inc., 171 47th, Brooklyn, N. Y. (Ca. "Ameria")  
 Stephen, Co. (Continuous Business Forms), 24th & Rump Sts., Philadelphia, Pa.

**GREENE, TWEED & CO., 340 Elm Ave., North Wales, Pa. 19454 N**  
 (PALMETTO Braided Packings, Molded Packings, Sheet Edings & Gaskets. FAVORITE® Reversible Ratchet Wrench BASA® Replaceable Face Hammers; EMPIRE® Rawhide Plastic Mallets; MORAN'S® Round Belt Couplings, Sub Compounds; TUSKO® Walnut Polishing Leather)  
 (S—Palmetto Realty Corp.)  
 (Ex. Ca. "Pollemass") (P.) E. Delfiner; (V. P. & G. M.) W. S. Josephson; (S. & T.) Henry Delfiner; (S. M.) Lawrence van Dyck; (P. A.) M. D. Segall; (Plant Mgr.) Robert Whitaker.  
 (See our colored insert at Packings for complete description PALMETTO Packings)

& Hodgson, Inc. (Oil Burners), 31 Commercial, Providence, R. I.  
 Greenebaum, Jones, Tanning Co. (Leather), 8657 N. Rockwell Ave., Chicago, Ill.

**GREENERD PRESS & MACHINE COMPANY, INC., Crown & Cedar Sts., Nashua, N. H. 03060 (Phone: 889-4101—Area Code 603)**  
 (Hand Operated Rack and Pinion Type Arbor Presses; 1/4 Driven Hydraulic Presses, "C" Frames Up to 150 Tons 4-Post Presses Up to 250 Tons; Expanding and Shrink Machinery Up to 700 Tons)  
 (Ca. Calculagraph Company)  
 (P.) Wm. C. Moodie; (V. P.'s) Wm. C. Moodie, Jr., P. Moodie; (T.) R. W. Schneider; (Asst. Gen. Mgr.) P. A. Lafus

Greenfield, Frank J., Co., Inc. (S—See American Construction Technical Institute of New York, Inc.)  
 Mfg. Co., Inc. (Pipe & Tube Hangers, etc.), 2181 E. Huntly Philadelphia, Pa.  
 Paper Box Co., Inc., Greenfield, Mass.  
 Samuel, Co., Inc. (Ingot Sts, Stone Ingot Sts, Buffalo, N. Y.)  
 Steel Stamp Works, Inc. (Stamps & Dies), 2 Mead St., Greenfield, Mass.

**GREENFIELD TAP & DIE, DIV. UNITED-GREENFIELD CORP., following page.**  
 Greenbalgh, A. Co. (Lead Burning Contractors, Stainless Steel Turn Mills (Rayon Final Goods), 314 Woodbine, Pawtucket, R. I.)

Fuelburner, Inc. (S—Union Metal Little Corp.), Craters, Inc.: St. Louis  
 Pueblo, Colo.; Macon, Ga.; Troy, Mich.; Cranley, N. J.; Little Rock, Ark.;  
 Ill.; Taylor, Mich.; Mexico, Mo.; Woodbridge, N. J.; Jackson & Oak Hill, Ohio; Cilmax, Philadelphia & Trenton, N. J.; Sulphur Springs, Texas; Acton & Toronto, Ont.; Claybank, Sask., Can. (Ca. "Greenco")  
 Ball Bearing Co., 9803 Harvard Ave., Cleveland, Ohio 44106  
 Bay Awning & Tent Co. (S—Green Bay Industries), 1100 Main, Green Bay, Wis.  
 Bay Cannals Corp., 123 Main, Green Bay, Wis. 54306  
 Bay Drug Co., 234 E. State, Green Bay, Wis.  
 Bay Food Corp. (E. Dean Foods Co.) (S—Budlong Pickle Div.), 889 School Pl., Green Bay, Wis. 54306  
 Bay Foundry & Machine Works (Sewage Machy, Water Filters, etc.), 401 S. P-onaway, Green Bay, Wis. (Ca. "Norscreek")  
 Bay Gear Works, 548 Lawrence, Green Bay, Wis. 54302  
 Bay Packaging, Inc. (S—Briggs Packaging Corp.; Kalamazoo Container Co.), 831 Doblin, Green Bay, Wis. (Br. at Franklin Park, Ill. & Wausau, Wis.)  
 Bay Paper & Pulp Co. (S—See Green Bay Packaging, Inc.)  
 Bay Plastics, Inc. (Ca. Calvis Co.), 1028 N. Ashland, Green Bay, Wis.  
 Bay Soap Co. (E. A. Meyer), 2099 Shawano Ave., Green Bay, Wis.  
 Bay Steel Tube Corporation (Welded Steel Tubing), 1746 S. Broadway, Green Bay, Wis.  
 Bray Green Bay, Wis.  
 Brass, Inc. (Steel Kule Dies), 213 Valley St., East Providence, R. I.  
 Chas. Corp. (Sample Cards), 650 Fifth Ave., New York, N. Y. 10011  
 Chas. E. & Son, Inc. (Paint Brush Ferrules), 90 Passaic, Newark, N. J.  
 Colouisi, Inc. (Oil Burners, Furnaces, etc.), 322 S. W. 3rd, Des Moines, Iowa 50306 (Br. at Rockford, Ill. & Sioux Falls, S. D.)  
 Co. Div., The (J. H. Dunning Corp.) (Wooden Boxes, Boxes, Shooks, Inc.), 1658 Post Rd., Darien, Conn. (Factory at Bellows Falls, Vt.)  
 Daniel, Co. (S—Thomas Box Co.) (Felt Stain, etc. Slippers), Dolgeville, N. Y. (Br. at New York, N. Y.; Boston, Mass. & Chicago, Ill.)  
 Deck Co. (S—Union Metal Little Corp.; Craters, Inc.: St. Louis Button & Mfg. Co.) (Advertising Specialties, Badges, Buttons, etc.), 1023 W. Montana St., Chicago, Ill.  
 Electric Co., Inc. (Rectifiers), Fair Lawn, N. J.  
 Farms (Lumber), Falls of Rough, Ky.  
 Foundry Co., 380 Birchier, St. Louis, Mo.

**GREEN FUEL ECONOMIZER CO. INC., A SUBSIDIARY OF BALDWIN-LIMA-HAMILTON, 700 Main St., Beacon, N. Y. 12508**  
 (Phone: 831-3600—Area Code 914 and New York City, Walker 5-8966)  
 (Mechanical Draft Fans and Industrial Fans, Cindertraps, Dust Collectors, Air Heaters, etc.)  
 (Ex. Ca. "Economizer") (V. P. & G. M.) F. W. March; (S. M.) F. N. Houston.

Giant Co., LeSueur, Minn. (Canneries at Woodside, Del.; Belvidere, Ill.; Blue Earth, Montgomery, Okato, LeSueur, Winsted, Water, Iowa; Winthrop & Glenco, Minn.; Buhl, Idaho; La Porte City, Iowa; Dayton, Eilenburg, Olyzapia, Pomeroy, Wash.; Beaver Dam, Fox Lake, Rippon, Rosendale & Waupun, Wis.) (Sales Offices at Burlingame, Calif.; Atlanta, Ga.; Chicago, Ill.; Bronxville, N. Y.; Minneapolis, Minn. & Lausanne, Switzerland) (Ca. "Grengriant"; Lausanne)  
 Henry J. Instruments, Inc. (Meteorological Instruments), 2502 Shames Dr., Westbury, N. Y. 11590

**GREEN INSTRUMENT COMPANY, INC., Dept. 87, 295 Vassar St., Cambridge, Mass. 02139**  
 (Engraving Machines and Accessories, Cutter Grinders, etc.) (P.) Edwin T. Green.

Ile Mfg. Co., Inc. (Feed Mixers, etc.), Green Isle, Minn.  
 Jewelry Co. (School & Fraternity Jewelry), 1016 Walnut St., Kansas City, Mo.  
 Machinery Co. (Heads & Discharge Bases for Turbine Pumps), Plainview, Texas  
 Mfg. Co. (Feed Pingers), Rockton, Ill.  
 Mountain Marble Co., West Rutland, Vt.  
 Mountain Mica Co. (Mica, Quartz, etc.), Gasetts, Vt.  
 Mountain Studios, Inc. (Wooden Dishes & Forks), White River Junction, Vt.  
 Mountain Tissue Div. (Ca. Mountain Paper Products Corp.), Bellows Falls, Vt.  
 Paste Works, Green Point Ave. & Liverpool Rd., Liverpool, N. Y.  
 R. H., Inc. (Nuts, Bolts), 1201 24th, Oakland, Calif.  
 Silver Chair Co., Livermore, Ky.

Figure 9. Thomas Register, A-Z Alphabetical List of Manufacturers, page 446



You are correct if you indicated that the Thomas Register's AAAA rating for the Green River Steel Corporation indicates assets in excess of \$1,000,000. Turn to the question on page 29.



Your answer is that you would use the index to advertisers. This is not incorrect. The index refers you to the page in the classified list containing the manufacturer's advertisement. The advertisement usually gives specific product information. However, all manufacturers included in TR are not advertisers. Return to the question on page 23 and select a more generally correct answer.

Your answer is that you would use the product finding index. Wrong. The product index lists specific articles only and would not help you in this case. Return to page 22 and choose the correct answer.

If you have turned to this page you are not following instructions.

**Question**

The patron then asks if the Green River Steel Corporation has any subsidiary companies. Where would you find the answer? Refer to Figure 9, re-read the information in Figure 5 under "Subsidiaries, Affiliations, etc.," select the correct reply, and turn to the answer on the page indicated.

- 30. Index to Advertisers
- 31. A-Z List of Manufacturers
- 32. Product Classification Listings

Your answer is the Index to Advertisers. This is not incorrect. However, only advertisers in TR are listed here. Many manufacturers listed in TR are not advertisers. Turn back to page 29 and choose an answer that is more generally true.

Your answer is the A-Z list of manufacturers. You are right. Turn to Figure 9. Note "A Jessop Steel Co., Washington, Pa." This means that the Green River Steel Corporation is a subsidiary of or "affiliated with", or "controlled by" the Jessop Steel Company. Green River Steel does not itself have subsidiaries. Turn to the next question on page 33.

Your answer is the product classifications listings. You are wrong. The classified listings give information about specific manufactured items but do not give information about the organizational structure of the various manufacturing companies. Return to the question on page 29 and select the correct answer.

## Question

A patron asks if TR indicates whether the trademarks "Focalite," "Focal-Lite," and "Focalities" are all legally registered. Read the information in Figures 10 and 10A, select the correct answer, and turn to the page on which it is contained.

36. TR doesn't give that information.
37. Information is in the American Trademark Index in Volume 7.
38. You do not have sufficient information to answer the patron's question.



# THE AMERICAN TRADEMARK INDEX

Buyers' Quick Reference Lists of Leading Trademarks, Special Brands, etc.

This Trademark Index is an alphabetically arranged list of names under which various products are stamped, labeled, advertised, etc.

## IMPORTANT EXPLANATION

When Manufacturers inform us that they are labeling, advertising, selling, etc., products under Trademarks, we usually include said Trademarks in this Index, without any consideration whatever as to whether these names are Registered Trademarks or not.

In many instances, we list the same trademarks for two or more manufacturers, and in some of these instances the duplicated "Trademark" listings are in connection with the same kind of articles—this presents apparently possible conflict. We aim to list all Trademarks that are reported to us in apparent good faith;—in cases where there may be a conflict, as indicated above, or where there is an actual dispute between Manufacturers as to the right to use a name as a Trademark, we do not, in the absence of information of legal adjudication, or other evidence convincing to us, eliminate any name from this "Trademark Index" because of such conflict or dispute. It is obvious that we are not qualified to determine the merits in such conflict and disputes, and our listing of two or more concerns in connection with the same trademark, is wholly without indication as to which, if any, of said concerns, has the exclusive right to the use of repeated trademarks. It is left entirely to each user of the list to determine such questions from information to be secured from other sources.

The foregoing indicates the possibility, and perhaps the probability, that some of the "Trademarks" listed herein, may not be properly used by the Manufacturers, etc., listed in connection therewith.

The names of materials herein listed are the trademarks of the materials, and are not to be understood by the presentation herein to denote generic or descriptive names and words for general use.

This index is not limited to Registered Trademarks. Many of the names listed, perhaps a majority, are not registered.

We aim to list only Manufacturers or Proprietors in connection with "Trademarks," but error is always possible in this respect.

## CAUTION

While this "Trademark Index" represents a large expenditure of time and money in an effort to make it the most complete and accurate list of its kind, some inaccuracies are inevitable for the reasons given in this explanation, and for other reasons;—therefore, nothing printed in this "Index" should be relied upon, without independent verification, and in any instance, for any use, wherein any loss or damage in any direction might result from any error or incorrect information or listing therein.

### THOMAS PUBLISHING COMPANY.

No attempt is made to publish every Trademark or Brand Name. Many of them are dormant. We aim to publish only those which are likely to be looked for.

A Trademark that is the same as the name of a manufacturer is not always included in this list. If you cannot find a name here, look in the A-Z Alphabetical List of Manufacturers or Product Classifications. For example, "Watson-Stillman" Molding Presses, made by the Watson-Stillman Press Div., Farrell-Birmingham Co., Inc., would not be listed here.

Where local street address is not given, consult the A-Z Section or Product Classification for complete address.

SEE ADDITIONAL TRADEMARKS IN "ADDENDA" AT END OF THIS SECTION.

- A**
- Deer Buckets & Agricultural Roll Chains, Link-Belt Div. FMC Corp., Dept. TR-69, Prudential Plaza, Chicago, Ill.
  - Fire-Cut Solder, Kester Solder Co., 4208 Wrightwood Ave., Chicago, Ill.
  - Ice Tubs, Atlantic Tubs & Rubber Co., Cranston, R. I.
  - Pear & Filler Clay, Old Hichory Clay Co., Paducah, Ky.
  - Appliance Tubing, Plastics Industrial Products Co., Inc., 17 Union, Lawrence, Mass.
  - Felt, American Felt Co., 45 Glenville Road, Glenville, Conn.
  - FIMA Non-Fuming Canity Field, Universal Chemical Co., S. Louis, Mo.
  - Filter Water Treatment, Betz Laboratories, Inc., Philadelphia, Pa.
  - CAUSE Shot Gun Shells, Federal Cartridge Corp., Milledale, N.Y.
  - JUM-X Latex House Paint, Cook Paint & Varnish Co., 10th Kansas City, Mo.
  - JUNE Pin, Costume Jewelry, Wynne Precision Co., Griffin, Ga.
  - JUCAN Welding & Brazing Fluxes, South Welding Equipment Co., 2635 4th St., S. E., Minneapolis, Minn.
  - KIMO Roofing Tile, Fraser Brick & Tile Co., San Antonio, Texas.
  - KIV-ZING Cycle Accessories, Harvey May & Son, Monroe & Harvey, Elmer, Mich.
  - KEE Power Press, K&E III Metal Products, Inc., 110 Fifth, Memphis, Ill.
  - KEE A DAY Perpetual Year Diary, Samuel Ward Mfg. Co., Boston, Mass.
  - K&B-EX Ring & Round Book Label Holder, Col-U-Dee Co., Scarborough & Windsor, New Windsor, N. Y.
  - KUS Belted Strand, Bethlehem Steel Corp., Bethlehem, Pa.
- AAR—Con.**
- "Valves, Globe, Angle, Ball-valve, The Lumbermaster Co., Beeman St. at Waverly Ave., Cincinnati, Ohio.
  - Standard Type Computers, McCommy & Farley Corp., 119 4th, Pittsburgh, Pa.
  - A. A. S. Springs, Allegheny Auto Spring Co., Pittsburgh, Pa.
  - A. A. S. Check Writers Machinery, Checkwriter Co., New York, N. Y.
  - Copper, Tin Bearing Metals, Glacier Metal Co., Richmond, Va.
  - Tinsel Goods, Hy-Sil Mfg. Co., 100 Spring Ave., Remer, Mich.
  - A. B. Brand Spices & Seasonings, Vice-Amus Products, Detroit, Mich.
  - AD Domestic Gas Range, Weibull Corp., Massena, N. Y.
  - "Queen-Resist. Dry-Rubber Cable Insulation, Amcon Wire & Cable Co., New York, N. Y.
  - "Type Labels, White Sulphur Top & Label Inc., 343 Open St., Caldwell, N. J.
  - "CU, Venetian Blinds, Alphonse Bremer Co., Shrewport, La.
  - COATINGS for Use on Aceto-Butyrate Seed-O-Lag Product, Inc., Industrial Div., St. Paul, Minn.
  - A B & B Auto. Feeders, Running Back 3334 Food de Lac Ave., Upper Merion, Pa.
  - ABC All Balanced Control, Adams Engineering Co., Inc., Ojus, Fla.
  - Allison Automatic Bag Closing, Blaw-Knox Co. Food & Chemical Equipment Div., 43 Winchester Ave., Buffalo, N. Y.
  - Annapolis Veterinary Blood-Clotting Powder, Chas. Pfizer & Co., Inc., New York, N. Y.
  - Annapolis Veterinary Blood-Clotting Powder, Chas. Pfizer & Co., Inc., New York, N. Y.
  - Wall at Miller Park, Wayne Ind.
  - Avanti Bar-Checking Lathes, Gisholt Machine Co., Div. of Giddings & Lewis Machine Tool Co., 1309 E. Washington, St. Louis, Mo.
- A—Con.**
- 9 Cutting Fields, Reilon Corp., Arcadia, Calif.
  - 20 Rock Bands, Coach Bros. Mfg. Co., Ware St., East Point, Ga.
  - -12-16-20-25-30-35-40 Insulating Fire Brick, Armstrong Corp Co., 1010 Concord, Lancaster, Pa.
  - 19 GRIZZLY-BEAR Cream, Non-Applastic Laminated Waterproof Paper, Ludlow Corp., Needham Heights, Mass.
  - -20-B Bedstead, Action Diamond Tool Co., 4547 W. Grand Ave., Chicago, Ill.
  - 20, 25, 25, 26, 28 Insulating Fire Brick, North American Refractories Co., 613 Euclid Ave., Cleveland, Ohio.
  - -32, A-100 Rubber Accelerators, Monsanto Co., Organic Chemicals Div., 800 N. Lindberg Blvd., St. Louis, Mo.
  - -43 Laundry Detergent, Diamond Alkali Co., Cleveland, Ohio.
  - -44 Laundry Detergent, Diamond Alkali Co., Cleveland, Ohio.
  - 52 Foundry Core & Facing Binder, Krause Milling Co., Milwaukee, Wis.
  - -56 Compressed Asbestos Sheet Packing, Raybestos-Manhattan Inc., Packing Div., Passaic, N. J.
  - -94 Roofing Chalk, American Crayon Co., 2002 Hayes Ave., Sandusky, Ohio.
  - 200 Degreaser Field, Barco Chemical Products Co., 703 S. La Salle, Chicago, Ill.
  - -612 Aluminum Etchant, DuBois Chemicals, Div. W. R. Grace Co., 630 Broadway, Cincinnati, Ohio.
  - 2000 Clean Room Hats, International Rubber Corp., 85 High, Boston, Mass.
  - 20000 Lubricant Roller Bearings, Link-Belt Div. FMC Corp., Dept. TR-69, Prudential Plaza, Chicago, Ill.
  - AA, A Industries Inc., 352 Fair, Detroit, Mich.
- AA, A Industries Inc., 352 Fair, Detroit, Mich.**

- A A 1. Carpet Writers Machinery, Chas. Miller Co., New York, N. Y.
- " Copper, Tin Bearing Metals, Glacier Metal Co., Richmond, Mass.
- " Tineel Goods, Hy-Sil Mfg. Co., 100 Spring Ave., Revere, Mass.
- A B Brand Spices & Seasonings, Vico-Ammis Products, Detroit, Mich.
- AB Domestic Gas Ranges, Wehlt Corp., Massena, N. Y.
- " Gann-Restor. Buff-Rubber Cloth Insulation, Alameda Wire & Cable Co., New York, N. Y.
- " Taps & Labels, Allen-Balley Tag & Label Inc., 343 Ogden St., Calverton, N. Y.
- " Co. Ventilation Blinds, Alphonse Bremer Co., Sheepsport, Pa.
- " COATINGS for Use on Aceto-Butyrate, Speed-O-Lag Products, Inc., Industrial Div., St. Paul, Minn.
- A B & C Auto Formers, Manning Boards, Battery Cases, etc., Sulper Steel Products Corp., 3514 Fond du Lac Ave., Milwaukee, Wis.
- ABC All Balanced Control, Adams Engineering Co., Inc., Ojus, Fla.
- " Allison Automatic Bag Closing, Blaw-Knox Co. Food & Chemical Equipment Div., 45 Winchester Ave., Buffalo, N. Y.
- " AntiSeptic Veterinary Blood-Clotting Powder, Chas. Pfizer & Co., Inc., Agricultural Div., Dallas, Texas.
- " Aluminum Welding Film, Anti-Spark Compound Co., Inc., Wall at Miller, Fort Wayne, Ind.
- " Automatic Bar-Chucking Lathes, Gisholt Machine Co., Div. of Gladings & Co. Machine Tool Co., 1309 E. Washington Ave., Madison, Wis.
- " Automatic Coffee Creamer, Alfred Brumage Co., Newark, N. J.
- " Bags, All American Saffling Bag Co., 190 Railroad Ave., Jersey City, N. J.
- " Balances, American Balance Corp., 68-B First, New Rochelle, N. Y.
- ABC Blewrens, American-Standard Industrial Div., Three-avenue Ave. et Roosevelt, Detroit, Mich.
- " Brattice Cloth & Non-Collapsible Tubing, American Brattice Cloth Corp., 280 Kings Highway, Warren, Ind.
- " Bushings & Lift Springs Drilling Fixtures, Machined Cast-Iron & Aluminum Sections, Accurate Bushing Co., 439 North Ave., Garwood, N. J.
- " Castings, Armstrong Brass Casting Co., Stockport, Calif.
- " Clips, Armstrong Store Fixture Co., Sharpshooters, Pa.
- " Clothes Washers, Ironers & Dryers, Allorfer Bros., Peoria, Ill.
- " Code English & Spanish, Americana Code Co., Hadenssack, N. J.
- " Coke & Coal Chemicals, Alabama By-Products Corp., Birmingham, Ala.
- " Detergent Sanitizers, Armstrong Chemical Co., Inc., Rochester, N. Y.
- " Dry Clean Pads, Keiffel & Esser Co., Hoboken, N. J.
- " Dumbwaiters Self-jet Machine Works, 62 8th Ave., New York, N. Y.
- " Fasteners, Bolts, Nuts, Rivets, Washers, Screws, Academy Bolt & Nut Corp., Chicago, Ill.
- " Filter Cloth & Paper Sewed Products Co., Fox River Grove, Ill.
- " Fire Appliances, Cedar Fire Prevention Corp., 658 Grand Ave., New York, N. Y.
- " Injector Petrocarb, Inc., 240 Broadway, New York, N. Y.
- " Inoculations for All Legumes, Pearson & Co., Mobile, Ala.
- " Lift Spring Drilling Fixtures, Accurate Bushing Company, 439 North Ave., Garwood, N. J.
- " Oil Line Couplings, Atlas Bradford Co., Houston, Texas.
- " Paper Products, Alfred Blyer & Co., Inc., Massena, N. Y.
- " Pattern Guards, C. B. Hewitt & Bros., 19 Green, New York, N. Y.
- " Payroll System, Check, The Todd Company Div., Burroughs Corp., Rochester, N. Y.
- " Pearl Buttons, Automatic Button Co., Muscatine, Iowa.
- " 19 GRIZZLYBEAR Crped, Non-Asphaltic Laminated Waterproof Paper, Lufflow Corp., Northbrook Heights, Mass.
- " 20-B Reels Band, Action Diamond Tool Co., 4547 W. Grand Ave., Chicago, Ill.
- " 20, 23, 25, 26, 28 Manufacturing Fire Brick, North American Refractories Co., 613 Euclid Ave., Cleveland, Ohio.
- " 32, A-100 Rubber Accelerators, Monsanto Co., Organic Chemicals Div., 800 N. Lincoln Blvd., St. Louis, Mo.
- " 43 Laundry Detergent, Diamond Alkali Co., Cleveland, Ohio.
- " 44 Laundry Detergent, Diamond Alkali Co., Cleveland, Ohio.
- " 52 Foundry Core & Facing Slinder, Krause Milling Co., Milwaukee, Wis.
- " 56 Compressed Absbestos Sheet Packing, Rubbertex-Manhattan, Inc., Packing Div., Passaic, N. J.
- " 94 Borling Chalk, American Crayon Co., 2002 Hays Ave., Sandusky, Ohio.
- " 200 Degreaser Field, Barco Chemical Products Co., 703 S. La Salle, Chicago, Ill.
- " 612 Aluminum Etchant, DuBais Chemicals, Div. W. R. Grace Co., 650 Brewery, Cincinnati, Ohio.
- " 2000 Clean Room Mats, International Rubber Corp., 85 High, Boston, Mass.
- " 20000 Spherical Roller Bearings, Link-Belt Div. FMC Corp., Dept. TR-68, Prudential Plaza, Chicago, Ill.
- AA, A A Industries Inc., 352 Fair, Detroit, Mich.
- " Breese Bushings, "A" Brass Foundry, Los Angeles, Calif.
- " Drill Oil, Baber Caster Oil Co., Bayonne, N. J.
- " Drill Jig Bushings, All American Products Co., Roberts & San Francisco Rd., Glendale, Calif.
- " Elevator Bushings, Link-Belt Div. FMC Corp., Dept. TR-68, Prudential Plaza, Chicago, Ill.
- " Greases, Mohl Oil Co., New York, N. Y.
- " Hydraulic Control Valves, Double A Products Co., Sub. of Brown & Sharpe Mfg. Co., Upton St., Manchester, Mich.
- " Spigot Chucks for Vertical Spindle Surface & Horizontal Face Milling, The Fuller Machine Co., Div. of The FMR Corp., 68 Victor St., West Haven, Conn.
- " Unit Cooler, Teamy Engineering, Inc., 1080 Springfield Rd., Union, N. J.
- " AUTO ARC Welding Head, Auto Arc-Weld Mfg. Co., Cleveland, Ohio.
- " JO Paper Products, Sog Products Co., Lipanier, Ind.
- AA QUALITY Abrasives, American Abrasive Co., 100 Union, Westfield, Mass.
- " QUALITY Fertilizers & Chemicals, American Agricultural Chemical Co., New York, N. Y.
- " RB Elevator Bushings, Link-Belt Div. FMC Corp., Dept. TR-68, Prudential Plaza, Chicago, Ill.
- " WORKHORSE Washer-Extractor Comb., AA Laundry Machinery Co., 1112 S. Kadie Ave., Chicago, Ill.
- A. A. & W. P. Acid Proof Paint, Parr Paint and Sealants Inc., Syracuse & Brackets Road, Cleveland, Ohio.
- A A A Gearing Lubricants & Anti-Friction Gearing Metal, Seltzinger's, Inc., Atlanta, Ga.
- AAAA Oil Filter, Liberty Industries, Inc., Julius & Livonia Ave., Brooklyn, N. Y.
- A A A BEJARD felt, American Felt Co., 45 Glenville Road, Glenville, Conn.
- AAB Valve Resealing Equipment, New Ulm Mfg. Co., Inc., New Ulm, Minn.
- A A P Aircraft Engine Intake Filters, American Air Filter Co., Inc., 200 Central Ave., Louisville, Ky.
- A A F PHOTO-CLONE Dust Collectors, American Air Filter Co., Inc., 200 Central Ave., Louisville, Ky.
- AAPCO Drill Jig Bushings, All American Products Co., Roberts & San Francisco Road, Glendale, Calif.
- AAR Coplers, American Steel Foundries, Inc., Chicago, Ill.
- Pear & Fitch Clay, Old Hickory Clay Co., Paducah, Ky.
- Polysar Tubing, Plastics Industrial Products Co., Inc., 17 Union, Lawrence, Mass.
- REL, American Felt Co., 45 Glenville Road, Glenville, Pa.
- RNA Non-Fuming Guniting Fluid, Universal Chemical Co., 50 Union, Lawrence, Mass.
- SA Water Treatment, Betz Laboratories, Inc., 100 Main, Philadelphia, Pa.
- SAUCHE Shot Gun Shells, Federal Cartridge Corp., Milwaukie, Ore.
- SAV-X Lites Hours Paint, Cook Paint & Varnish Co., 1800 Kansas City, Mo.
- SAV-PH, Costume Jewelry, Wynne Precision Co., Griffin, Ga.
- SULZAR Welding & Brazing Fluxes, South Wolina Equip-ment Div. Tecum Corp., 2533 4th St., S. E., Minneapolis, Minn.
- SUN Roofing Tile, Fraser Brick & Tile Co., San Antonio, Texas.
- SUN-ZINC Cycle Accessories, Harvey May & Son, Moore & Harvey, Bangor, Mich.
- TAPE Paper Pouch, McGill Metal Products, Inc., 110 First, Marquette, Ill.
- TAPE A DAY Perpetual Year Diary, Samwel Ward Mfg. Co., Boston, Mass.
- TD-927 Rice & Round Book Label Holder, Col-U-Dex Inc., Reuther & Winkler, New Windsor, N. Y.
- TDS Belted Strand, Bethlehem Steel Corp., Bethlehem, Pa.
- TD Steel Saw Blades, Atkins Saw Div., Greenville, Miss.
- TDVE Intercomer, Varian Associates, Vacuum Div., 617 Hason Way, Palo Alto, Calif.
- TDV, Federal Pacific Electric Co., 40 Paris St., Newark, N. J.
- TDZ, Jones, Inc., 863 Easton Rd., Warrington, Pa.
- TDZ Free & Rashed Wire, Sheffield Div., 7000 Roberts, Kansas City, Mo.
- TDS & Barbed Wire, Armo Steel Corp., 1939 Armo Ave., Indianapolis, Ind.
- T. I. Mills & Co., Inc., Kailoworth, N. J.
- TDZ for Washing, James Austin Co., Inc., Mars, Pa.
- TDZ Hydraulic, Meane Stone & Lime Co., Quincy, Ill.
- TDZ Carriage & Wheel, Winton-Wagon Works, Buffalo, N. Y.
- TDZ, 198 Severed Ave., Utica, N. Y.
- TDZ, Sewer Pipes in Live Stock, Crown Products Co., Maple, Ga.
- TDZ Paint, Harvig Paint Co., Cincinnati, Ohio.
- TDZ Capacity Jaw Cracker, Allis-Chalmers, 864 S. 70th St., Milwaukee, Wis.
- TDZ Polish & Cleaning Compound, J. L. Prescott Co., Frank, N. J.
- TDZ Soda Ash, Ramsey Div. of A. P. Green Fire Brick Co., One 37, Philadelphia, Pa.
- TDZ, etc., Salsbury Chemical Laboratories, Bensenville, Ill.
- TDZ, Mercury Chemical Corp., Metuchen, N. J.
- TDZ Salt Sacs, G. F. Hebble & Bro., Hartford, Conn.
- TDZ Tissue & Towels Sterling Pulp & Paper Co., Eau Claire, Wis.
- TDZ Salsbury Dairy, A & L Laboratories Inc., Bensenville, Ill.
- TDZ Choke Ore, E. J. Larimo & Co., Philadelphia, Pa.
- TDZ Prometer, Truening-Albert Instrument Co., 10900 Det-roit Rd., Philadelphia, Pa.
- TDZ Air Handling Tool Steel, Bethlehem Steel Corp., Bethlehem, Pa.
- TDZ All Felt Baller, American Radiator & Standard Sali-ty Corp., New York, N. Y.
- TDZ Upholstery Chucks, Saffler Mfg. Co., Inc., Little Neck, L. I.
- TDZ Steel Wire Pallets, Union Steel Products Co., 242 E. Brown St., Atheron, Mich.

Figure 10. Thomas Register, Volume VII, American Trademark Index, page 1

F7



" Egg Candles, Metallic Arts of New England, Inc., Cambridge, Mass.  
 " FOCAL-LITE Portable Hand Light, Focal Co., Downey, Calif.  
 " FOCALITES, Ampex Div., Carle Place, N. Y.  
 " FOCITRONIC Long Standoff Optical Non-Contact Measurement, Mechanical Technology, Inc., Instruments Div., 968-70 Albany-Shaker Rd., Latham, N. Y.  
 " FOOD-CRANE Hydraulic Crane, Focovul Corp., Chicago, Ill.  
 " FLAR Reflector Flares, Gleason Corp., Aitching Div., 2266 Prospect Ave., Milwaukee, Wis.  
 " FOCUS Glass Cleaner, Water Soluble Products Div., Chicago, Ill.  
 " Office & Conference Seating, Harter Corp., Prairie Ave. at Ruyuan, Sturges, Mich.  
 " FODA Color Process Separation, Foote & Davies Div., Doraville, Ga.  
 " FO-DI-CO Products Food Display Covers, Food Display Cover Products, The Great Southern Bldg., Indianapolis, Ind.  
 " FOSBERG, The Great Southern Bldg., Indianapolis, Ind.  
 " FUG Spinning, H. D. Hudson Mfg. Co., 567-91 E. Illinois St., Chicago, Ill.  
 " " Steam Cleaning Compound, Lester Laboratories Inc., Alhambra, Cal.  
 " " Anne Bore Bar Fingers, Gallo Mfg. Co., Racine, Wis.  
 " " ALITE Extruder, Pioneer, Inc., Oakland, Calif.  
 " " GULF, Extruder, Pioneer Brass & Iron Works, Reunion, Cal.  
 " " CUTTER, Business Burr & Volaw, San Francisco, Calif.  
 " " RAINE FIRE FIGHTER Fire Pump, Food Machinery, Corp., San Jose, Calif.  
 " " FOAM Fire-fighting Nozzles, Bliss-Rockwood, A Div. E. W. Bliss Co., 50 Harlow St., Worcester, Mass.  
 " " FREE Anti-Fog Liquid, Industrial Products Co., 2816 N. 4th St. Philadelphia, Pa.  
 " " FREE Goggles, H. L. Boston Co., Inc., Seattle, Wash.  
 " " HOG Debrag Nozzles, Akron Brass Co., 1450 Spruce, Wooster, Ohio.  
 " " HORN Spray Horn, Jubilee Mfg. Co., Omaha, Neb.  
 " " FOGJET Spray Nozzles, Spraying Systems Co., 3223 Randolph St., Bellwood, Ill.  
 " " FOCUPU? Grapho Lens Camera & Fog Preventive, Mine Safety Appliances Co., 230 N. Broadway Ave., Pittsburgh, Pa.  
 " " FOSBERT, Grapho Lens Camera & Fog Preventive, Mine Safety Appliances Co., 230 N. Broadway Ave., Pittsburgh, Pa.  
 " " FOSTREAHM Fire Hose Nozzles, Western Fire Equipment Co., 69 Main at Mission, San Francisco, Calif.  
 " " MIL BRITE Ohio Brown Powder Co., Cleveland, Ohio.  
 " " POIL BUTT SEAM Reinforce Welders, Precision Welder & Pipepress Corp., 3318 Ithaca Ave., Cleveland, Ohio.  
 " " COTE Metallized Paper Bags, Bagcraft Corp. of America, N. Y.  
 " " -FLEX Embossing, Folcroft Printing Corp., New York, N. Y.  
 " " PLATE Adhesive Backed Metal Labels, Nelson Minneapolis Co., W. Collins Ave. at Minneapolis St., Los Angeles, Calif.  
 " " Powdered Germicide Disinfectant Concentrate To Be Mixed With Water, Service Industries, 2101 E. Somerset, Philadelphia, Pa.  
 " " -TITE effective Insulation, Consolidated Bag & Felt Div., Republic Felt, Inc., 562 Windsor, Somerville, Mass.  
 " " TUMBLER Sails, Aluminum Seal Co., Richmond, Ind.  
 " " FOILBRITE Flameproof Ink, Bowling Bros. & Demsey Sales Co., Philadelphia, Pa.  
 " " FOILCALLS Pressure Sensitive or Solvent Activated Adhesive Labels, 3003-30 Alhambra, Minneapolis, Miller Dial & Name Plate Co., Et. Monte, Calif.  
 " " FOILCRIMP Aluminum Packaging Foil, Machinery, Kaiser Aluminum & Chemical Corp., Oakland, Calif.  
 " " FOILGARD Colored Aluminum Roof Coating, Foy-Johnston, Inc., 1775 Mentor Ave., Cincinnati, Ohio.  
 " " FOILLINE Boxes, Continental Can Co., Paper Products Operations Group, New York, N. Y.  
 " " FOILLE Antimicrobial Emulsion for Berms, Carbinapical Co., Dallas, Texas  
 " " Treatment for Berms, Mine Safety Appliances Co., 230 N. Broadway Ave., Pittsburgh, Pa.  
 " " FOILPAK Pouch Papers, Marvellum/Ludlow Plastics, 12 Appleton, Holyoke, Mass.  
 " " FOKKER Bond Tester, Shur-Lok Corp., 1300-04 E. Normandy Pl., Santa Ana, Calif.  
 " " FOL DOOR Folding Doors & Partitions, Holcomb & Hale Mfg. Co., Inc., Indianapolis, Ind.

Figure 10A. Thomas Register, Volume VII, American Trademark Index, page 155

" SAUCEP Airboats, Bando-Macmill Propeller Co., Ft. Worth, Texas.  
 " SAUCEP Chuck Brooder, James Mfg. Co., Fort Adkins, Wis.  
 " SAUCEP Pelletizing & Mixing Discs, Dwight-Lloyd Div. McDowell-Wellman Engineering Co., Cleveland, Ohio.  
 " SAUCEP Postal Scale, Dinsmore Instrument Co., Flint, Mich.  
 " SCOT Type Sides, Planers, G. A. Gray Co., 2613 T. Wagon, A. Cincinnati, Ohio.  
 " SCOUT Steel Wheel States, Chicago Roller Skate Co., 4449 W. Lake, Chicago, Ill.  
 " SPOT Recorders, Alida Electronic & Impulse Recording Equipment Co., Westboro, Mass.  
 " FLYNN Gas Burners, Flynn Burner Corp 432 Fifth Ave., New Rochelle, N. Y.  
 " FLYNNITAN Shapp, Comblade & Horsabide Leather, Joba & Sons, Salem, Mass.  
 " FLYSTOP Air Curtains, Misalviel (Nv. of Berner Industries, Inc., Indianapolis Inc., P. O. Box 349-T, New Castle, Pa.  
 " FLYTERRATE Language, Hartmann L. Schaefer, Lebanon, Tenn.  
 " FLYTOMETER Film, Instrumani, Lovensan Industries, Labz & Thomas, Mfg. Co., Milwaukee, Wis.  
 " FLYWEIGHT Aluminum Ladder Jack, Stinson Mfg. Co., Inc., Spokane, Wash.  
 " FLYWEIGHT Luggage, Oshkosh Luggage Co., New York, N. Y.  
 " FOAM A Berber, De Lore Div. National Lead Co., Iron Works, St. Louis, Mo.  
 " AIR Headrests, Denzco, Inc., Denver, Colo.  
 " -DET High Foaming Detergent, Dakite Products Inc., Berkeley Heights, N. Y.  
 " EASE Foot Pads, Cushions & Shields, Scholl Mfg. Co., Inc., Chicago, Ill.  
 " -EZE Inflation Rings, Guardian Products Co., Inc., North Hollywood, Calif.  
 " -FLEECE Mattress Pad, Seely Specialties Co., New Orleans, La.  
 " FLEXYON, Inc., 730 W. 13th St., Chicago, Ill.  
 " FOLDERS, Republic Packaging Co., Chicago, Ill.  
 " FOAM-MAKER A System for Making Mechanical Foam, Carbor Div. of Chemetron Corp., Dept. TR, 840 N. Michigan Ave., Chicago, Ill.  
 " MASTER Plastic Foam Machine, Crown Machine & Tool Co., Arlington, Texas.  
 " O.K. For Bag Shampoo, Premier Mfg. Co., Cleveland, Ohio.  
 " PLUG Pipe Plugs, Teles Plastics, Fort Worth, Texas.  
 " SHAMPOO Bag & Fabric Cleaner, Golden Star Polish Mfg. Co., Mo. Kansas City, Mo.  
 " -TEX Cleaner, No-Of Products Co., Cleveland, Ohio.  
 " UP Department, Sam's Caterers Co., Inc., Sam's Bldg., Ramo, N. Y.  
 " FOAMADE Pressure Sensitive Urethane Foam Tape, Foamade Industries, 1215 Menno, Royal Oak, Mich.  
 " FOAMAL Glassing Compound Dispenser, DuBois Chemical Div. of W. R. Grace & Co., 630 Broadway, Cincinnati, Ohio.  
 " Foamed Polyurethane Resin, Woodall Industries, Inc., 7557 E. Michigan Rd., Detroit, Mich.  
 " FOAMALONE Foam Type Unabaker & Bag Cleaner, Interstate Insulated Buildings Co., Detroit, Mich.  
 " FOAMMASTER, Atlas Machinery Corp., Sub. of The Spencer Yarnline Co., 840 Metropolitan Ave., Brooklyn, N. Y.  
 " Shampooer Products Co., Inc., Newark, N. J.  
 " FOAMAWAY Rug & Carpet Cleaner, The Selig Chemical Industries Inc., 350 Marietta, N. W., Atlanta, Ga.  
 " FOAMAX Foam Disintegrator, Capital Cables, IIT Wire & Cable Div. of International Telephone & Telegraph Corp., Saratoga & Grand Ave., Pavantuck, R. I.  
 " FOAMCANS Cushioned Package Protection, Dorray Products Co., Cleveland, Ohio.  
 " FOAMCOR Insulated Swinging Traffic Doors, W. B. McGuire Co., Inc., P. O. Box 539, Pittsfield, N. Y.  
 " FOAMCOTE Carpet Underlayment, Crown Rubber Co., Fremont, Ohio.



Your answer is that TR does not give that information. You are correct. The American Trademark Index in Volume 7 is an alphabetically arranged list of names under which various products are stamped, labelled, and advertised. The Index is not limited to registered trademarks, however; many of the names listed, perhaps a majority, are not registered. Turn to the next question on page 39.

Your answer is that you would consult the American Trademark Index in Volume 7. You are wrong. The patron asked if certain trademarks are registered. The American Trademark Index is not limited to registered trademarks. Many of the names listed, perhaps a majority, are not registered. Return to the question on page 33 and pick the correct answer.

Your answer is that you would need additional information from the patron. You are wrong. There is no amount of additional information that will enable you to determine from TR whether or not trademarks are registered. The American Trademark Index in Volume 7 is not limited to registered trademarks. Many of the names listed, perhaps a majority, are not registered. Turn back to page 33 and choose the correct answer.

## Question

A patron insists that there is a newly organized company in Cleveland, Ohio, that manufactures abrasive compounds. He would like the company's name and address. The company is not listed in the classified section of TR. How would you go about obtaining the information? Choose the correct answer and turn to the appropriate page.

40. Look in the Supplement to TR
41. Look in the Addendum to TR
43. Consult Poor's Register



Your answer is that you would look in the Supplement to TR. You are guessing. There is no TR Supplement. Return to the question on page 39 and pick another answer.

Your answer is that you would look in the Addendum to TR. You are correct. Study Figure 11 (page 1690, addendum of the product classifications section), and then go on to the next question.

#### Question

Write the name and address of a Cleveland manufacturer of abrasive compounds, then turn to page 44 to be sure your answer is correct.

---

---

**COMPUTERS: ANALOG & DIGITAL**

- (Computers: Analog & Digital—Con.)  
 N Y: COLLEGE POINT  
 Belock Instrument Corp 112-03 14th Av (Ade-  
 loc) .....AAAA  
 N Y: FARMINGDALE L I  
 Magnosonic Industries Inc 68 Toledo (Mag-  
 netic Heads, Tape Transports) .....A  
 N Y: FLUSHING  
 Transmagnetics Inc 134-10 36th Rd (Con-  
 verters) .....X  
 N Y: GREAT NECK  
 Dynalog Electronics Corp (Digital) .....X  
 Sperry Gyroscope Co Div Sperry Rand Corp  
 AAA .....AAA  
 N Y: PLAINVIEW L I  
 AEROFLEX LABORATORIES INC R Z South  
 Service Rd (Reconnaissance Systems) .....AAAA  
 Digital Electronics Inc Engineers Hill .....A  
 N Y: TROY  
 DUFFERS ASSOCIATES INC R D 4 P O Box  
 106-T .....A

**WELD ENERGY COMPUTERS**

Measures and gages resistance welding cur-  
 rent, voltage and power on primary and  
 secondary—for laboratory and production  
 applications.

**DUFFERS ASSOCIATES, INC.**

R. D. 4, Box 109-T • TROY, N. Y. 12180

OHIO: CLEVELAND  
 Hickok Electrical Instrument Co Dupont &  
 Williams Sta (Digital) .....AAAA  
 Victoreen Instrument Co 10101 Woodland  
 (Digital) .....AAAA

OHIO: GALLION  
 North Electric Co. 570 S Market .....AAAA  
 OHIO: WICKLIFFE  
 Bailey Meter Co .....AAAA

**ANALOG AND  
DIGITAL COMPUTERS**

Bailey manufactures a com-  
 plete line of electronic analog,  
 digital, and multi-computer  
 systems for industrial process  
 control. Each system is custom  
 built using standardized, inter-  
 changeable, solid-state modules  
 for simplified maintenance and  
 future expansion. Bailey's new  
 855 Digital Process Computer offers un-  
 matched flexibility, low cost, and on-line, real-time  
 capability. Over 50 years of design, manufactur-  
 ing, and application experience assure you of  
 optimum performance and reliability.

**Bailey  
BAILEY METER CO.  
WICKLIFFE, OHIO 44092**

- ORE: PORTLAND  
 Argonaut Assoc Inc 3104 S W 87th Av (Ana-  
 log Only) .....X  
 Electro Scientific Industries Inc 13910 N W  
 Science Park Dr (Complex Algebra) .....AAAA  
 PA: AMBLER  
 Lawrence Systems Corp 258 N Main .....X  
 PA: FORT WASHINGTON  
 HONEYWELL, Virginia Dr .....AAAA

For fast information call the office  
 nearest you as listed in volume VII  
 or write:


**Honeywell**  
 Fort Washington, Pennsylvania 19034

**CLASSIFIED LISTS—(Thomas Register, Dec., 1967 Ed.)—CONSULT THE INDEX**

- PA: HUNTINGDON VALLEY  
 Roback Corp .....AA  
 PA: PHILADELPHIA  
 Leads & Northrup Co Rockland & Stenton  
 Av2 (Process) .....AAAA  
 TEXAS: AUSTIN  
 Electro-Mechanics Co P O Box 1546 .....A  
 TEXAS: DALLAS  
 Geotronic Labs Inc 1207 Eldorado .....X  
 Texas Instruments Inc P O Box 6015 .....AAAA  
 VA: RICHMOND  
 Glennal Scientific Corp Flight Research Div  
 P O Box 1F (Encoders) .....AAAA  
**\*COMPUTERS: ELAPSED TIME**  
 (see Recorders: Time)  
 N J: FRANKLIN LAKES  
 RAMAPO PRECISION INSTRUMENTS CO  
 INC 641 Commerce .....B  
 N J: HANOVER  
 CAUCULAGRAPH CO 272 Bridgedale Av .....AAA  
 (Computes working time [elapsed time].  
 Shows starting and finishing time and  
 prints all three on job card.)  
 PA: FORT WASHINGTON  
 HONEYWELL, Virginia Dr .....AAAA  
**COMPUTERS: PROCESS CONTROL**

**LOOK FIRST TO  
FOXBORO**

**Digital Computing Systems**



The Foxboro Digital Systems Division offers industry highly technical knowledge and practical equipment — two essentials for effecting new concepts of economics made possible by digital systems.  
 A seasoned, competent staff provides complete service from analysis, programming, system design to equipment necessary for a qualified, job-designed digital system.  
 Bulletin L-17.

**THE FOXBORO COMPANY • Digital Systems Division**  
 86 Neponset Avenue, Foxboro, Mass. 02035

CALIF: CANARILLO  
 Three N Company Revere Mincom Div 300 S  
 Lewis Rd .....AAAA

- CALIF: CONCORD  
 Systron-Donner Corp Gallindo .....AAAA  
 COLO: ARVADA  
 AUTO-TEOL CORP 6023 W 66th Av .....X  
 CONN: BRIDGEPORT  
 Consolidated Electrodynamics 706 Bestwick  
 Av (Function Modules) .....AAAA  
 CONN: NORWALK  
 Norden Div .....AAAA  
 CONN: WATERBURY  
 Bristol Co The 117 Bristol Rd .....AAAA  
 FLA: MELBOURNE  
 Radiatron Inc .....AAAA  
 ILL: CHICAGO  
 Hallcraft Co The 4401 W 5th Av .....AAAA  
 ILL: MORTON GROVE  
 General Precision Inc Industrial Controls  
 Div 6511 Oakton .....AAAA  
 MASS: BOSTON  
 Adage Inc 1079 Commonwealth Av .....A  
 MASS: EAST NATICK  
 Feedback Controls Inc Div of N Y Airbrake  
 Co 8 Eric Drive .....A  
 MASS: FOXBORO  
 Foxboro Co The 86 Neponset Av .....AAAA  
 MASS: MAYNARD  
 Digital Equipment Corp .....AAAA  
 N J: DOVER  
 Kentronics Co 3 George .....B  
 N J: NEW BRUNSWICK  
 Procedure Corp 219 Somerset .....X  
 N J: SUMMIT  
 Shepard Laboratories Inc 482 Morris Av (Line  
 Printers for Computers) .....X  
 N J: LONG BRANCH  
 Electronic Associates Inc 185 Monmouth Park  
 Hwy .....AAAA  
 Kearfoot Div 1150 McBride Av .....AAAA  
 N Y: BINGHAMTON  
 General Precision Inc Link Group (Hillcrest)  
 (Special Purpose Digital) .....AAAA  
 N Y: BUFFALO  
 Amherst India Corp 869 Niagara Falls Blvd ..X  
 N Y: COLLEGE POINT  
 American Rectifier Corp 116-17 15th Av .....AAAA  
 Bico Instrument Corp 112-03 14th Av .....AAAA  
 N Y: LONG ISLAND CITY  
 Ford Instrument Co 31-00 Thompson Av .....AAAA  
 Lear Siegler Inc Dats & Control Div 34-01  
 38th Av .....AAAA  
 N Y: NEW YORK CITY  
 Bunker-Ramo Corp 277 Park Av (Numerics  
 Control) .....AAAA  
 Radio Corp of America 32 Rockefeller Plaza  
 AAAA  
 N Y: PLAINVIEW  
 Digital Electronics Inc Engineers Hill .....A  
 N Y: SCHENECTADY  
 General Electric Co River Rd .....AAAA  
 OHIO: CLEVELAND  
 Gilmore Industries Inc 3355 Richmond Rd  
 AAAA  
 OHIO: WICKLIFFE  
 Bailey Meter Co .....AAAA  
 ORE: PORTLAND  
 Electro Scientific Industries Inc 13910 N W  
 Science Park Dr (Poles & Zeroes Analyzer  
 Plotter) .....AAAA  
 PA: FORT WASHINGTON  
 HONEYWELL, Virginia Dr .....AAAA  
 PA: NORRISTOWN  
 Navigation Computer Corp Rittenhouse & Van  
 Buren Rds .....X  
 PA: PHILADELPHIA  
 Public Ford Corp "C" & Tioga Sts (Indus-  
 trial & Military) .....AAAA  
 W VA: FAIRMONT  
 Electronic Control Systems Inc Electronics Rd  
 AAA


changeable, solid-state modules for simplified maintenance and future expansion. Bailey's new 855 Digital Process Control Computer offers unmatched flexibility, low cost, and on-line, real-time capability. Over 50 years of design, manufacturing, and application experience assure you of optimum performance and reliability.

**Bailey**  
**BAILEY METER CO.**  
 WICKLIFFE, OHIO 44092

ORE: PORTLAND  
 Argonaut Assoc Inc 3104 S W 87th Av (Adm-Log Only) .....X  
 Electro Scientific Industries Inc 13910 N W Science Park Dr (Complex Algebrate).....AAAA  
 PA: AMBLER  
 Lawrence Systems Corp 268 N Main.....X  
 PA: FORT WASHINGTON  
 HONEYWELL-Vista Dr .....AAAA

For fast information call the office nearest you as listed in volume VII or write:

**Honeywell**  
 Fort Washington, Pennsylvania 19034



The Foxboro Digital Systems Division offers industry highly technical knowledge and practical equipment - two essentials for effecting new concepts of economics made possible by digital systems.

A seasoned, competent staff provides complete services from analysis, programming, system design to equipment necessary for a qualified, job-designed digital system. Bulletin L-17.

THE INTRUS COMPANY • Digital Systems Division  
 85 Neponset Avenue, Foxboro, Mass. 02035

CALIF: CAMARILLO  
 Three M Company Revere Micom Div 300 S Lewis Rd .....AAAA

- Learn Slesler Inc Data & Control Div 34-01 36th Av .....AAAA
- N Y: NEW YORK CITY  
 Bunker-Ramo Corp 277 Park Av (Numerica Control) .....AAAA
- Radio Corp of America 32 Rockefeller Plaza .....AAAA
- N Y: PLAINVIEW  
 Digital Electronics Inc Engineers Hill.....A
- N Y: SCHENECTADY  
 General Electric Co River Rd.....AAAA
- OHIO: CLEVELAND  
 Gilmore Industries Inc 3355 Richmond Rd .....AAAA
- OHIO: WICKLIFFE  
 Bailey Meter Co .....AAAA
- ORE: PORTLAND  
 Electro Scientific Industries Inc 13910 N W Science Park Dr (Poles & Zeroes Analyzer Plotter) .....AAAA
- PA: FORT WASHINGTON  
 HONEYWELL Virginia Dr .....AAAA
- PA: NORRISTOWN  
 Navigation Computer Corp Rittenhouse & Van Buren Rds .....X
- PA: PHILADELPHIA  
 Palco Ford Corp "C" & Tioga Sts (Industrial & Military) .....AAAA
- W VA: FAIRMONT  
 Electronic Control Systems Inc Electronics Rd .....AAA

## ADDENDA—Classifications

This Section Contains Listings not Included in Regular Classified Section. Additional Late Addenda End of Volumes II, III, IV, V and VI

- \*ABRASIVE COMPOUNDS  
 OHIO: CLEVELAND  
 FALCON TOOL CO INC 4521 Brookpark Rd..X
- \*ABRASIVES: DIAMOND WHEEL  
 OHIO: CLEVELAND  
 FALCON TOOL CO INC 4521 Brookpark Rd..X
- \*ABRASIVES: FLEXIBLE  
 OHIO: CLEVELAND  
 FALCON TOOL CO INC 4521 Brookpark Rd..X
- OHIO: DAYTON  
 DAYTON ABRASIVE PRODUCTS INC 785 Windham (Cartridge Rolls, Square & Cross Pads, Pressure-Sensitive Discs).....AAAA
- \*ABRASIVES: PRESSURE SENSITIVE BACKING  
 OHIO: CLEVELAND  
 FALCON TOOL CO INC 4521 Brookpark Rd..X
- OHIO: DAYTON  
 DAYTON ABRASIVE PRODUCTS INC 785 Windham (Pressure-Sensitive Coated Abrasive Discs, Sheets, Strips).....AAAA
- ABSORBERS: MOISTURE  
 N Y: NEW YORK CITY  
 ELECTRO CHEMICAL CO 206-212 E 128th.AAA
- \*ACCOUNTING MACHINES  
 CALIF: SANTA ROSA  
 GATES ACQUSTINET INC P O Drawer 1406 (Accounting Cards).....A
- OHIO: CLEVELAND  
 ADDRESSOGRAPH MULTIGRAPH CORP 1200 Babbitt Rd (Addressograph Plates, Machines & Systems).....AAAA
- \*ACOUSTICAL ENCLOSURES  
 CALIF: SANTA ROSA  
 GATES ACQUSTINET INC P O Drawer 1406.A

(Instructions, inside front cover)

- \*ACOUSTICAL MATERIALS  
 MICH: DETROIT  
 AEROMOTIVE PRODUCT SPECIALTIES CORP N Military & Fisher Freeway.....A
- N J: EAST ORANGE  
 BROKAW CORK CO INC P O Box 283-T (Cork) .....B
- ACTIVATORS  
 N Y: NEW YORK CITY  
 UNIROVAL INC 1232 Avenue of Americas (Vulcanizing).....AAAA
- ILL: CHICAGO  
 LENNOR ENGINEERING CO 7545 W Wilson Av .....X
- \*ADDRESSING MACHINE PLATES  
 OHIO: CLEVELAND  
 ADDRESSOGRAPH MULTIGRAPH CORP 1200 Babbitt Ed.....AAAA
- \*ADDRESSING MACHINES: SHIPPING TAG  
 OHIO: CLEVELAND  
 ADDRESSOGRAPH MULTIGRAPH CORP 1200 Babbitt Ed.....AAAA
- \*ADHESIVES  
 N Y: NEW YORK CITY  
 UNIROVAL INC 1232 Avenue of Americas (Carpet, Rubber-To-Metal, Textile, Paper, Shoes, Wood, Foli, Leather, Fiber, Tape, Tire & Tube Repairing).....AAAA
- PA: PITTSBURGH  
 KOPPERS CO INC 1850 Koppers Bldg (Resorcinol) .....AAAA

1690

Figure 11. Thomas Register, Product Classifications, page 1690

(Branches & Zip Codes—A-Z Vol. VIII)

62

Your answer is that you would try Poor's Register. You are not incorrect. In some cases, Poor's Register may be a good choice for this kind of information since it lists the names and addresses of manufacturers under its Industrial Classifications Section. However, if you had consulted Poor's Register, Abrasive Products, you would have found that no Cleveland manufacturer of abrasive products is listed. Return to page 39 and choose the correct answer.

You are correct if your response was the Falcon Tool Co., Inc.,  
4521 Brook Park Rd., Cleveland, Ohio. The Addendum contains  
listings that do not appear in the regular classified section.

Turn to the next page.

You have now completed the programmed section of this instruction. On the following pages, you will find a set of review questions that are intended to reinforce what you have learned.

## Questions

1. The Thomas Register of American Manufacturers lists all known American manufacturers who sell their products or services in the United States or Canada.  
(A) true (B) false
2. Names of manufacturers are listed in the Thomas Register under multiple product classifications.  
(A) true (B) false
3. The Thomas Register gives a capital or "size" rating to companies whose assets are over \$500,000.  
(A) true (B) false
4. The Thomas Register's American Trademark Index lists only registered trademarks.  
(A) true (B) false
5. The Thomas Register is published every five years.  
(A) true (B) false
6. Indexes to products, manufacturers, and advertisers are included in the Thomas Register.  
(A) true (B) false

Turn to page 47 for the correct answers.



## Answers

1. (B) false. The correct answer is that TR lists all known American manufacturers who sell their products or services worldwide.
2. (A) true
3. (B) false. The correct answer is that TR gives a capital rating to companies whose assets are over \$500.
4. (B) false. The correct answer is that TR lists both registered and unregistered trademarks that are likely to be looked for.
5. (B) false. The correct answer is that TR is published annually.
6. (B) false. The correct answer is that TR has indexes to products and advertisers.

Please turn the page.

As an additional exercise, use TR to obtain the following information: the subsidiaries, affiliates, or controlled concerns of General Motors; General Motor's capital rating; addresses of all General Motor's branch offices of the west coast; address of General Motor's principal office; the name of General Motor's chief executive.

BLLR

LI

**REFERENCE TOOLS and SERVICES**

**Organization  
Directories**

**On-The-Job Training of Library Personnel**

Produced under contract  
OEC-1-7-071214-5116  
with support from the U.S.  
Army ATLAS Project.



INTRODUCTION TO THE USE OF DIRECTORIES:

RESEARCH CENTERS DIRECTORY

This is a form of "programmed text"--that is, in working with it, you must follow the instructions as to which pages to turn to, rather than reading it through, page by page. It contains a series of multiple-choice questions. At the end of each question are numbered answers; the number of each answer is also the number of the page on which that answer is discussed. Don't worry about getting the wrong answers. The text will help you get through the entire series of questions, whether your first answers are right or wrong.

## Research Centers Directory

The coverage of the Research Centers Directory is broad and includes listings of research institutes, centers, foundations, laboratories, bureaus, experiment stations, and similar non-profit research facilities, activities, and organizations that are formally identified by specific or distinctive names or titles. Units listed are, in addition, established on a permanent basis as separate entities for carrying on continuing research programs in all fields of endeavor: agriculture, education, the humanities, the social and behavioral sciences, the life sciences, the physical sciences, engineering, and technology. Research activities have been interpreted to include fundamental, applied, and developmental studies, as well as programs of data gathering, analysis, and synthesis.

Supporting service units that operate as separate entities-- such as computation centers, statistical laboratories, survey units, information retrieval facilities, and similar activities-- are also included. Laboratories and facilities used primarily in instructional programs and internship activities, with research merely of incidental concern are not included. Accordingly, research efforts of individual investigators, informal groups, and teaching departments have been omitted.

The basic information concerning each research center listed in the Research Centers Directory was obtained by the publisher (Gale Research Company) directly from the head or a responsible official of the organizational or its parent institution. In some instances, supplementary data have been obtained from documentary material and secondary sources.

Figure 1 shows the Research Centers Directory and its supplement, New Research Centers.

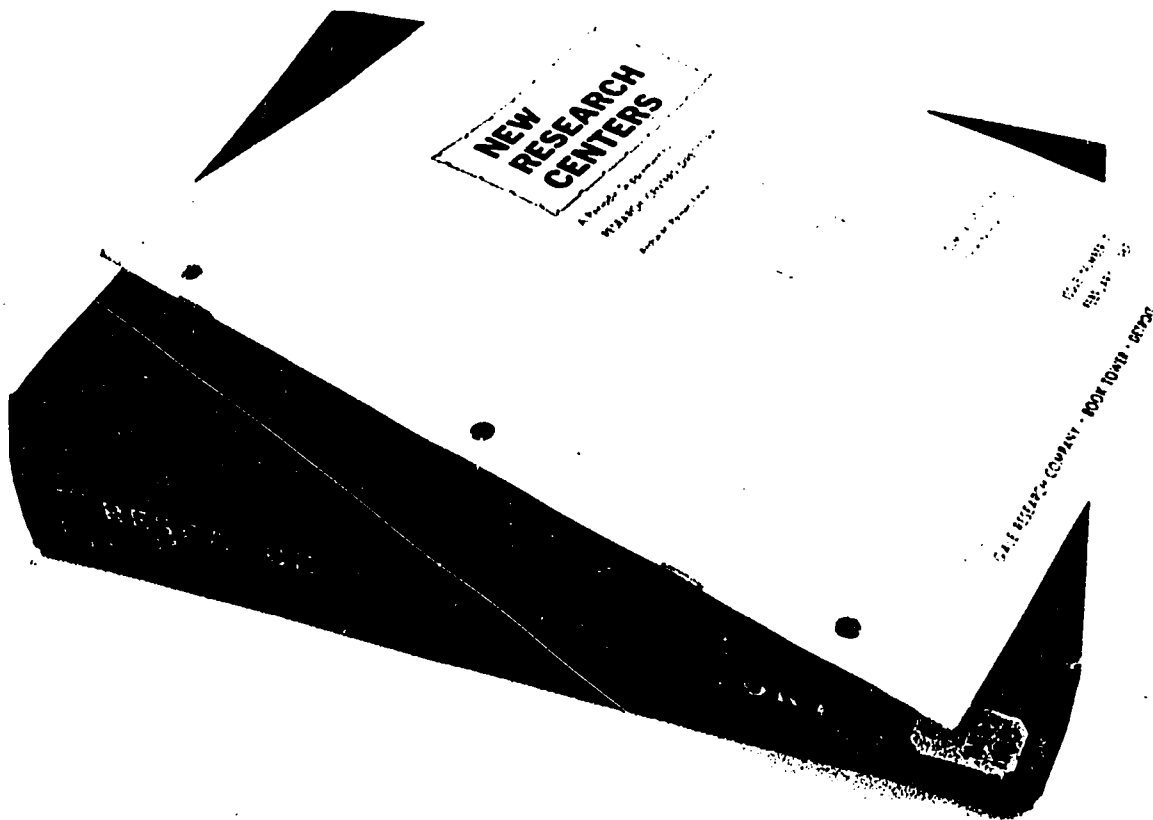


Figure 1. Photograph of Research Centers Directory (2nd ed) and New Research Centers

New Research Centers is published periodically and contains information on newly established non-profit research centers and on centers that may have inadvertently been missed when the base volume of the Research Centers Directory was published. For example, listings on issues of New Research Centers which updated the second edition of Research Centers Directory (used in the preparation of this unit) have now been incorporated in the recently issued third edition of Research Centers Directory. This new edition will also be updated, as necessary, with issues of New Research Centers. Material in the Research Centers Directory (which we will call RCD) is organized into 23 sections. Turn to Figures 2 and 2-A, which are a reproduction of the table of contents.

## CONTENTS

FOREWARD .....	9
INTRODUCTION .....	11
Organization of the Directory .....	13
Contents of Individual Listings .....	14
"New Research Centers;" A Periodic Supplement .....	15
<b>SECTIONS</b>	
1. AGRICULTURE, HOME ECONOMICS AND NUTRITION .....	17
Including Agronomy, Textiles, Animal Husbandry	
2. ASTRONOMY .....	75
Including Observatories	
3. BUSINESS, ECONOMICS AND TRANSPORTATION .....	87
Including Management, Accounting, Finance	
4. CONSERVATION .....	111
Including Fisheries, Forestry, Marine Science, Wildlife	
5. EDUCATION .....	139
Including Testing, Teaching Materials, Reading, Continuing Education, Adult and Special Education, School Planning	
6. ENGINEERING AND TECHNOLOGY .....	167
7. GOVERNMENT AND PUBLIC AFFAIRS .....	191
Including Civics, Community and Housing Studies, International Affairs, Planning, Public Administration, Urban Studies, Military	
8. LABOR AND INDUSTRIAL RELATIONS .....	213
Including Occupations, Pensions	
9. LAW .....	221
Including Copyrights, Patents, Trademarks, Legislation	
10. LIFE SCIENCES .....	229
Including Botany, Zoology, Plant Sciences, Medicine, Veterinary Science, Dentistry, Nursing, Biology, Pharmacy, Mental Health	
11. MATHEMATICS .....	319
Including Computer and Data Processing Facilities, Operations Research, Statistics	
12. PHYSICAL AND EARTH SCIENCES .....	351
Including Archeology, Chemistry, Geology, Meteorology, Mining, Nuclear Science, Physics, Electronics	
13. REGIONAL AND AREA STUDIES .....	409

Figure 2. Research Centers Directory - Contents, p. 7

14. SOCIAL SCIENCES, HUMANITIES, AND RELIGION .....	431
Including Anthropology, Communications, Human Development, Population, Religion, Sociology, History, Ethnic Folklore, Linguistics, Journalism, Creativity, Family Study and Behavior, Race Relations	
15. MULTIDISCIPLINARY PROGRAMS .....	479
16. RESEARCH COORDINATING OFFICES .....	495
17. ADDENDUM .....	517
Including listings received too late or with insufficient data for classification	

## INDEXES

18. INSTITUTIONAL INDEX .....	531
19. GEOGRAPHIC INDEX OF SPONSORING INSTITUTIONS .....	561
20. ALPHABETIC INDEX OF RESEARCH CENTERS .....	569
21. PERSONAL NAME INDEX .....	615
22. SUBJECT INDEX .....	639
23. UNIVERSITY PRESSES .....	663



### Question

A patron enters a library where you are assigned to the reference desk. He asks you for the names and addresses of centers on the east coast engaged in research on urban social problems. You decide that you may obtain this information from RCD.<sup>\*</sup> You turn to the Contents. Which of the 16 functional sections is most likely to have the listing you are seeking? Select the correct answer and turn to the page on which it is listed.

6. Education
7. Government and Public Affairs
8. Social Sciences, Humanities, and Religion

<sup>\*</sup>As indicated earlier, we shall often refer to the Research Centers Directory as RCD.

Your answer is that the information can be obtained by looking in the section on Education. You are wrong. Subjects under the Education heading are shown in the Contents and include testing, teaching materials, reading, continuing education, adult and special education, and school planning. Return to the question on page 5 and select the answer that deals with aspects of city life.

Your answer is that the information can be found in the section on Government and Public Affairs. You are correct. Subjects listed in this section are shown in the Contents and include civics, community and housing studies, international affairs, planning, public administration, urban studies, and military. Urban social problems are considered under urban studies.

Turn to page 9.

Your answer is that you would seek the information in the section on Social Sciences, Humanities, and Religion. You are wrong. Read the Contents again (Figures 2 and 2A) and then turn back to page 5 and select the correct answer.

### Question

You have decided that you may obtain for a library patron the names and addresses of centers on the east coast engaged in research on urban social problems from the Government and Public Affairs section of RCD. Study the Contents again (Figures 2 and 2A). Is there another section that you should consult to make sure that your search is comprehensive? Select the best answer and turn to the page containing that answer.

10. There is no other section you need to consult.
11. Business, Economics, and Transportation
12. Addendum

Your answer is that there is no other section you should consult. Wrong. It sometimes happens that listings are brought to the attention of the publisher after the volume has been compiled. Re-read the Contents (Figures 2 and 2A), turn back to the question on page 9, and select an answer that will help you to identify research units that do not appear in the main volume.

Your answer is that you would look in the section on Business, Economics, and Transportation. You are wrong. Study the Contents again (Figures 2 and 2A), turn back to the question on page 9 and select and answer that will help you to identify research units that do not appear in the main volume.

Your answer is that you would consult the Addendum. You are correct. The Addendum includes listings received too late or with insufficient data for classification within the main volume.

Turn to the next page.



An index can often make or break a reference work. A thorough and well thought-out index can mean the difference between a work's being only a fairly useful reference tool or one of the highest utility. RCD has five indexes to ensure maximum usefulness. A description of these indexes is given in Figure 3, on the next page. Study it and then turn to page 15.

### FIVE INDEXES ASSURE MAXIMUM USEFULNESS

The RESEARCH CENTERS DIRECTORY has as its main objective the bringing together of specific information and specially-informed individuals with persons or groups in need of or concerned with this information. A seeker after installations or individuals specializing in subjects of interest to him may take several approaches, and the indexes to this volume are designed to assist him in all the more likely ones.

Therefore, in addition to the assistance which is provided by the classified arrangement, the following five indexes have been provided:

1. RESEARCH UNIT INDEX. This index arranges all the centers, bureaus, etc., in the book in a single alphabet according to the names under which they operate.
2. INSTITUTION INDEX. Grouped by sponsoring institutions, individual research units are listed alphabetically. Independent research organizations are included as though they were sponsoring institutions.
3. GEOGRAPHIC INDEX. Sponsoring institutions are arranged geographically on the basis of their principal locations.
4. SUBJECT INDEX. Information given by each center in describing its principal fields of research has been analyzed, and as many specific subjects as possible for each center have been entered in the subject index. Extremely broad or general subjects have been avoided, if information given by the unit listed supported more detailed entries.
5. NAME INDEX. The name of the principal executive of each center in the book has been included (if available) in an alphabetical list which also includes the individual's affiliation and the number of his unit's entry in the book.

### CONTENTS OF INDIVIDUAL LISTINGS

Insofar as the information was available, the following items are included in the individual listings:

1. Formal name of the research activity and, where it is an integral unit of or is affiliated with a university or other organization, the name of the parent or affiliated institution. In the case of a recent change in name, the previous name or designation of the activity is also given.
2. Location or mailing address, usually including the ZIP or code number. In some instances the address may not be in the same city or even the same state in which the parent or affiliated institution is located.
3. Telephone number and extension for the main office of the activity.
4. Name and title of the director or head of the activity. Mr. and Miss are omitted, but Dr., Prof., or Rev. is included where known.
5. Year when the activity was established or founded.
6. Present status of the activity, i.e., whether it is an integral unit of a university or other organization or is separately incorporated but affiliated

**Question**

A patron has asked for the names and addresses of centers on the east coast engaged in research on urban social problems. You decide that this information can be obtained from RCD and that the Contents may not be as helpful in quickly locating it as one of the indexes. Which of the indexes would you use to find the information desired? Select the best answer and turn to the page on which it is contained.

- 17. Research Unit Index
- 18. Geographic Index
- 19. Subject Index

You are not following instructions. The lesson did not direct you to this page. Please read the questions more carefully.

Your answer is that you would use the Research Unit Index. You are wrong. This index arranges the centers alphabetically by name. It would not be useful to you, however, because you are seeking the names of centers; you do not already know them. Study Figure 3, turn back to the question on page 15, and select the index that will be most helpful to you on the basis of the information you have.

Your answer is that you would use the Geographic Index. This is not entirely incorrect. However, it is not your best choice. Sponsoring institutions are arranged geographically on the basis of their principal locations. This index would enable you to find all the research centers located on the east coast. You would then need to determine which of these centers engages in research on urban problems. Refer to Figure 3, turn back to the question on page 15 and select the index that will be most helpful to you.

Your answer is that you would use the Subject Index. Correct. The Subject Index contains references to Urban Sociology with SEE ALSO: Community Analysis. You will be able to quickly determine the centers that will fit the patron's needs. Turn to the next page.

**Question**

A student comes into your library and asks how many joint astronomical programs in the U.S. Government has with Harvard University. Refer to Figures 4 and 4A, (pages 21 and 22) select the best answer to the question, and turn to the appropriate page.

- 23. five
- 24. three
- 25. two



Laboratory in Arecibo, Puerto Rico, for study of the earth's ionosphere out to several thousand miles and, through its observatory, electron density, electron temperature and structure of the earth's magnetosphere.

## ★ 419 ★

Cornell University  
IGY WORLD DATA CENTER A, AURORA VISUAL  
420 Hollister Hall  
Ithaca, New York 14850  
Dr. Carl W. Gartlein, Director

Phone: AR 5-3612  
Founded: 1957

Government-supported research organization operated at Cornell University under primary control of National Science Foundation and National Academy of Sciences. Supported by National Science Foundation. Staff: 2 research professionals, 1 technician, 4 others. Volume of research: 1963--\$30,000.

Conducts research on aurora borealis, including collection of data on visual aurora in the United States, Alaska and Arctic, taking patrol spectrograms and operating all-sky camera in Ithaca and at other sites, also analyzing and storing this data and reduced data from centers in Edinburgh and Moscow.

Research results published occasionally in professional journals and in IGY general publications and in monthly NEWSLETTER to observers. Maintains a library of 100 original volumes and 1400 reprints, also can microfilm copy data.

## ★ 420 ★

DePauw University  
McKIM ASTRONOMICAL OBSERVATORY  
Greencastle, Indiana  
Dr. Charles H. Johnson, Head

Integral unit of DePauw University. Supported by parent institution.

Principal field of research: Astronomy. Also provides facilities for instruction in astronomy at the University.

## ★ 421 ★

Georgetown University  
GEORGETOWN COLLEGE OBSERVATORY  
Washington, D.C. 20007  
Rev. Francis J. Heyden, Director

Phone: FE 7-3300  
Founded: 1841

Integral unit of Department of Astronomy at Georgetown University. Supported by parent institution and U.S. Government. Staff: 9 research professionals, 12 supporting professionals, 1 technician, 2 others. Volume of research: 1962--\$55,000; 1963--\$50,000.

Principal fields of research: Solar and planetary spectroscopy, photoelectric photometry of stars and photometry of galaxies and variable stars. Also conducts programs of graduate and undergraduate instruction in astronomy.

Research results published in astronomical journals, reprints and monographs. Holds monthly astronomical colloquium from October to May. Maintains a library of 10,000 volumes on astronomy; Dr. Bernice Lamberton, librarian.

## ★ 422

Harvard University  
ASTRONOMICAL OBSERVATORY  
Cambridge, Massachusetts 02138  
Dr. Donald H. Menzel, Director

Founded: 1843

Integral unit of Department of Astronomy at Harvard University. Supported by parent institution and research grants. Staff: 40 research professionals, 12 supporting professionals, 2 technicians, 11 others.

Principal fields of research: Astronomy and astrophysics, including space science, radio astronomy, solar physics and theoretical astrophysics. Maintains a 15-inch telescope for special research projects and utilizes observational data and photographic records and measurements obtained at other collaborating observatories. Also provides for students of the University opportunities for research and training in observational techniques.

Research results published in professional journals. Holds regularly scheduled open nights in spring, summer and fall. Maintains an astronomical library and an extensive collection of photographic plates which are available for use of staff members, students of the University and visiting astronomers.

## ★ 423 ★

Harvard University  
BOYDEN OBSERVATORY  
Box 534  
Bloemfontein, Union of South Africa  
Dr. Donald H. Menzel, Director

Founded: 1928

Integral unit of Department of Astronomy at Harvard University. Supported by parent institution. Staff: 3 research professionals, 5 others.

Principal fields of research: Southern hemisphere stellar and planetary studies conducted in conjunction with observatories in five European nations making observations from northern latitudes so that in combination the entire sky is covered. Equipment includes a 60-inch reflector, a 32-inch flat-field Baker-Schmidt telescope and several smaller refractors.

Research results published in professional journals and monographs.

## ★ 424 ★

Harvard University  
HARVARD COLLEGE OBSERVATORY  
60 Garden Street  
Cambridge, Massachusetts 02138  
Dr. Donald H. Menzel, Director

Founded: 1936

Integral unit of Department of Astronomy at Harvard University, operated in cooperation with Smithsonian Astrophysical Observatory with joint staff appointments. Supported by parent institution and U.S. Government.

Principal fields of research: Astronomy and astrophysics, including astronomical observations, measurements and analyses.

Research results published in professional journals.

## ★ 425 ★

Harvard University  
RADIO ASTRONOMY STATION  
Fort Davis, Texas 79734  
Dr. Alan Maxwell, Director

Phone: 426-3201  
Founded: 1956

Integral unit of Harvard College Observatory at Harvard University. Supported by U.S. Government. Staff: 2 research professionals, 4 supporting professionals, 2 technicians, 3 others.

Principal fields of research: Radio astronomy and solar physics, including studies in solar, planetary, galactic and extra-galactic radio astronomy, also optical observations. Maintains radio telescopes of 85-foot and 28-foot diameters for study of radio frequency portion of electromagnetic spectrum.

Research results published in scientific journals. Maintains a library on radio astronomy, astronomy, radio engineering and solar physics; Mrs. A. Capri, librarian.

## ★ 426 ★

Harvard University  
SMITHSONIAN ASTROPHYSICAL OBSERVATORY  
60 Garden Street  
Cambridge, Massachusetts 02138 Phone: UN 4-7910  
Dr. Fred L. Whipple, Director Founded: 1891

Integral unit of Smithsonian Institution located at Harvard University and operated in cooperation with Harvard College Observatory with joint staff appointments. Supported by U.S. Government. Staff: 48 research professionals, 75 supporting professionals, 116 technicians, 96 others.

Principal fields of research: Astronomy and astrophysics, including optical tracking and analysis of earth satellites, meteoritics and space sciences. Maintains 12 Baker-Nunn photographic satellite observing stations located in various parts of the world and a computation and analysis center in Cambridge. Shares library and other facilities with Harvard College Observatory.

Research results published in professional journals, monographs and Government publications. Publications: SMITHSONIAN CONTRIBUTIONS TO ASTROPHYSICS and RESEARCH IN SPACE SCIENCE SERIES. Maintains a library on astronomy and astrophysics; Mrs. Jane Petschaft, librarian.

## ★ 427 ★

Haverford College  
WILLIAM J. STRAWBRIDGE MEMORIAL OBSERVATORY  
Haverford, Pennsylvania  
Dr. Louis C. Green, Director

Integral unit of Haverford College. Supported by parent institution and research grants.

Principal fields of research: Visual, photographic and spectroscopic observations of sun, moon, planets, stars and nebulae, galactic dynamics and astrophysics. Also provides facilities for instruction in astronomy at the College. Facilities include 3 equatorially mounted telescopes, a 10-inch and a 4 1/2-inch refractor and a 6-inch reflector, a reflecting telescope with 8-inch mirror and altazimuth, a meridian circle telescope, a zenith telescope, an astrographic mounting with 2 4-inch Ross lenses, sidereal clocks, a chronograph and other instruments.

Maintains a reference library on astronomy, astrophysics and spectroscopy.

## ★ 428 ★

Hobart and William Smith Colleges  
SMITH OBSERVATORY  
Geneva, New York  
Dr. John Hovorka, Head Founded: 1887

Integral unit of Department of Physics at Hobart and William Smith Colleges. Supported by parent institution. Staff: 1 research professional, 1 supporting professional.

Principal fields of research: Automatic image stabilization and stellar scintillation. Maintains a 10-inch refractor telescope in dome and a library of 200 volumes on physics and astronomy; Constance Brewer, librarian.

## ★ 429 ★

Indiana University  
GOETHE LINK OBSERVATORY  
Brooklyn, Indiana Phone: VE 1-0668  
Dr. Frank K. Edmondson, Director Founded: 1937

Integral unit of Astronomy Department at Indiana University, located 35 miles northeast of University campus. Supported by parent institution and U.S. Government. Staff: 4 research professionals, 2 supporting

professionals, 3 technicians, 2 others.

Principal fields of research: Asteroid positions and magnitude, photoelectric and photographic photometry, stellar spectroscopy and theoretical astrophysics, including astrometric and photometric studies of asteroids, galactic structure and stellar motions. Also provides instruction in astronomy at the University and facilities for faculty and graduate student research.

Research results published in professional journals. Publication: PUBLICATIONS OF THE GOETHE LINK OBSERVATORY (irregularly). Holds periodic public nights at the Observatory and weekly colloquia at the University. Maintains a small working library of 700 volumes devoted primarily to astronomy; Olga Turczyn, librarian.

## ★ 430 ★

LOWELL OBSERVATORY  
Box 1269  
Flagstaff, Arizona Phone: 774-3358  
Dr. John S. Hall, Director Founded: 1894

Independent nonprofit research organization with its own board of control. Supported by Percival Lowell Endowment Corporation. Staff: 7 research professionals, 7 supporting professionals, 5 technicians, 4 others. Volume of research: 1961--\$300,000; 1962--\$325,000; 1963--\$325,000.

Principal field of research: Astronomy, including observations of the planets and studies in photoelectric photometry, proper motions of stars and electronic intensification of starlight. Maintains a 24-inch refractor, 21-inch, 42-inch and 62-inch reflectors, a 13-inch photographic telescope and a 24-inch Ronnie Morgan telescope.

Research results published in astronomical and astrophysical journals. Publication: LOWELL OBSERVATORY BULLETIN. Holds local seminars as research warrants. Maintains a library of 100,000 volumes on astronomy, mathematics and physics.

## ★ 431 ★

MARIA MITCHELL OBSERVATORY  
Vestal Street  
Nantucket, Massachusetts 02554  
Dr. Dorrit Hoffleit, Director Founded: 1908

Integral unit of Nantucket Maria Mitchell Association, an independent nonprofit organization with its own board of control. Supported by parent institution and U.S. Government. Staff: 1 research professional, 1 other, plus volunteer college student assistants. Annual volume of research: \$6,000.

Principal field of research: Astronomy, mainly on variable stars, including their discovery, characteristics of variability and periods of fluctuation. Maintains a 7 1/2-inch photographic refractor.

Research results published in astronomical journals and annual reports of the Association. Holds regular weekly seminars on variable stars throughout the summer, also weekly public open nights.

## ★ 432 ★

NATIONAL RADIO ASTRONOMY OBSERVATORY  
P.O. Box 2  
Green Bank, West Virginia 24944 Phone: Arbovale 456-2011  
Dr. David S. Heeschen, Director Founded: 1958

Integral unit of Associated Universities, Inc., a nonprofit research organization sponsored by 9 northeastern universities; operated under contract with National Science Foundation. Supported by U.S. Government. Staff: 17 research professionals, 8 supporting professionals, 52 technicians, 69 others.

Principal field of research: Radio astronomy, including studies on

Your answer is five. You are wrong. It is correct that there are five astronomical programs conducted in affiliation with Harvard University. They are: Harvard University Astronomical Observatory; Boyden Observatory, Bloemfontein, Union of South Africa; Harvard College Observatory; Harvard University Radio Astronomy Station, Fort Davis Texas; and the Smithsonian Astrophysical Observatory. However, all of these are not conducted with support from the U.S. Government. Refer to Figures 4 and 4A, turn back to the question on page 20, and select the correct answer.

Your answer is three. You are wrong. It is true that there are three astronomical projects affiliated with Harvard University that receive U. S. Government support. They are: Harvard College Observatory; Harvard University Radio Astronomy Station; and the Smithsonian Astrophysical Observatory. However, the latter is an integral unit of the Smithsonian Institution although located at Harvard. Refer to Figures 4 and 4A, turn back to the question on page 20, and choose the correct answer.

Your answer is two. You are correct. The Harvard College Observatory, an integral unit of the Department of Astronomy at Harvard, is operated in cooperation with the Smithsonian Astrophysical Observatory, an integral unit of the Smithsonian Institution, with joint staff appointments. Joint research is supported by the U.S. Government. The Harvard University Radio Astronomy Station, Fort Davis, Texas, is supported by the U.S. Government.

Turn to the next page.

**Question**

A patron enters your library and asks the principal areas of research of the Wistar Institute. He also wants to know whether public meetings on Wistar Institute research are held, the extent of the research capability, the source of funding, and whether reports on Wistar research results are available. Where would you most quickly find the Research Centers Directory entry on the Wistar Institute? Choose the correct answer and turn to the page that contains that answer.

- 27. Contents
- 28. Subject Index
- 29. Institutional Index

Your answer is that you would check the Contents. You are wrong. There is no information there that you will find helpful in this particular case. Refer to Figure 3, turn back to the question on page 26, and select the correct answer.

Your answer is that you would use the Subject Index. Wrong. The subject of research is what you are trying to determine. You do not have the necessary information to use this index. Refer to Figures 4 and 4A, turn back to the question on page 26, and select an alternative.



Your answer is that you would use the Institutional Index. You are correct. The Wistar Institute is listed in its alphabetical place. Turn to the next page.

Figure 5 shows the RCD entry for the Wistar Institute. Read it. Use the information to answer the questions below. Then, turn to page 32 to see whether your answers are correct.

- a) Are public meetings held at the Wistar Institute? \_\_\_\_\_
- b) What was the dollar volume of research for 1963? \_\_\_\_\_
- c) How is Wistar Institute supported? \_\_\_\_\_  
\_\_\_\_\_
- d) Are reports on Wistar Institute research results available to the public? \_\_\_\_\_
- e) What is the name of the director? \_\_\_\_\_
- f) When was Wistar Institute founded? \_\_\_\_\_

## ★ 1823 ★

William Jewell College  
HERBARIUM

Liberty, Missouri 64068  
Dr. L. J. Gier, Curator

Phone: ST 1-3866 x49  
Founded: 1877

Integral unit of Department of Biology at William Jewell College  
Supported by parent institution. Staff: 1 research professional.

Principal fields of research: Local flora and bryophytes of Peru, also effects of microenvironment on species.

Research results published in professional journals.

## ★ 1824 ★

WISTAR INSTITUTE OF ANATOMY AND BIOLOGY

36th and Spruce Streets  
Philadelphia 4, Pennsylvania

Dr. Hilary Koprowski, Director

Phone: BA 2-6700  
Founded: 1894

Independent nonprofit research and graduate training organization with its own board of control. Supported by U.S. Government and research grants. Staff: 33 research professionals, 30 supporting professionals, 43 technicians, 116 others. Volume of research: 1961--\$800,000; 1962--\$950,000; 1963--\$1,000,000.

Principal field of research: Cell biology, including studies of cancer, virology, tissue culture, transplantation immunology and atherosclerosis, concerned with normal aging of cells and malignant cells, also biological, biochemical and biophysical approaches to basic problems of biological and medical research. Maintains an anatomical museum used for teaching purposes in anatomy, anthropology, dentistry and nursing, also an animal colony and glassware preparation and photography departments.

Research results published in scientific journals. Publications: JOURNAL OF MORPHOLOGY (6 times a year), JOURNAL OF EXPERIMENTAL ZOOLOGY (9 times a year), JOURNAL OF NUTRITION (monthly), JOURNAL OF COMPARATIVE NEUROLOGY (6 times a year), AMERICAN JOURNAL OF ANATOMY (6 times a year), JOURNAL OF CELLULAR AND COMPARATIVE PHYSIOLOGY (6 times a year), ANATOMICAL RECORD (monthly) and AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY (quarterly). Holds a monthly virology seminar open to everyone, a monthly staff seminar and graduate student seminars open to Wistar Institute members and special seminars in field of cell biology on appropriate occasion of visiting scientists open to everyone. Maintains a library of 10,000 volumes on scientific subjects including cancer, virology and biochemistry; William Purcell, librarian.

## ★ 1825 ★

WORCESTER FOUNDATION FOR EXPERIMENTAL BIOLOGY

222 Maple Avenue  
Shrewsbury, Massachusetts

Dr. Hudson Hoagland, Executive Director

Phone: VI 2-8921  
Founded: 1944

Independent nonprofit research and educational organization with its own board of control. Supported by U.S. Government, industry and foundations. Staff: 99 research professionals, 28 supporting professionals, 80 technicians, 58 others. Volume of research: 1961--\$2,770,000; 1962--\$3,280,000; 1963--\$3,800,000.

Principal fields of research: Brain function and behavior, cancer, cardiovascular and metabolic diseases, endocrinology of aging and physiology of reproduction, including studies on schizophrenia, effects of alcohol on brain function, body tissue and metabolism, actions of antidepressant drugs, female reproductive tract, control of ovarian functions, relation of hormonal function to age and bacterial dehydrogenation, also biosynthesis of steroid hormones. Also provides a postgraduate training program in physiology of reproduction, a continuing postgraduate educational program in steroid chemistry in collaboration with Clark University and collaborative instructional and research programs with neighboring medical schools, especially in Boston area.

Research results published in scientific journals. Holds special seminars for own staff and staffs of neighboring institutions and special summer training programs. Maintains an extensive library; Mrs. Barbara Bonay, librarian.

## ★ 1826 ★

WORLD LIFE RESEARCH INSTITUTE

23000 Grand Terrace

Colton, California

Dr. Bruce W. Holstead, Director

Phone: TA 5-4773  
Founded: 1959

Independent nonprofit research organization with its own board of control. Supported by U.S. Government, industry and donations from individuals. Staff: 2 research professionals, 1 other. Volume of research: 1961--\$70,000; 1962--\$57,000; 1963--\$65,000.

Principal fields of research: Marine biotoxicology, ethnobotany and terrestrial phytochemistry in a search for new drugs from natural resources, especially organic chemical agents derived from plants or animals having application to therapeutic medicine and human nutrition. Maintains extensive foreign contacts in 6,000 regions of the world, particularly underdeveloped areas in Asia and Latin America, in search of new drugs. Also provides consultation and evaluation services to government agencies and industry on biotoxic and phytochemical substances.

Research results published in scientific journals and books. Maintains a library of 6,000 items, mainly reprints on biotoxicology.

## ★ 1827 ★

Yale University

BINGHAM OCEANOGRAPHIC LABORATORY

P.O. Box 2025, Yale Station

New Haven, Connecticut

Dr. Daniel Merrimon, Director

Phone: ST 7-3131  
Founded: 1930

Integral unit of Yale University. Supported by parent institution and research grants.

Principal fields of research: Biological and physical oceanography of Long Island Sound and elasmobranch life history.

Research results published in scientific journals and monographs. Maintains an extensive library of books, reprints, maps, atlases and micro-cards on oceanography, ichthyology, ecology, limnology and marine biology; Mrs. Maurice J. Strauss, librarian.

## ★ 1828 ★

Yale University

CHILD STUDY CENTER

333 Cedar Street

New Haven, Connecticut 06511

Dr. Milton J. E. Senn, Director

Phone: 562-1161 x2140  
Founded: 1948

Integral unit of School of Medicine at Yale University. Supported by parent institution, U.S. Government and private foundations. Staff: 5 research professionals, 13 supporting professionals, 1 technician, 8 others.

Principal fields of research: Child development and behavior, including multidisciplinary studies on various aspects of child development from the newborn period into adolescence, with particular attention to autism, moral and ethical development, cognition and perception. Affiliated with other departments of School of Medicine and Graduate School at the University. Also participates in training programs for child psychiatrists, pediatricians, psychologists, educators and social workers.

Research results published in pediatric, psychoanalytic and psychiatric journals.

You are correct if you gave the following answers:

- a) Yes. A monthly virology seminar is open to the public.
- b) \$1,000,000
- c) U. S. Government and research grants
- d) Yes. Results are published in scientific journals.
- e) Dr. Hilary Koprowski
- f) 1894

Turn to page 33.

## Question

The patron at your library asks whether you can also tell him, from the base volume of the RCD, the number of staff members at the poliomyelitis research unit established at the Wistar Institute in Fall 1968. What would be the best way to answer the question? Select the best answer and turn to the corresponding page.

34. Look in the Subject Index under poliomyelitis.
35. Check the Addendum.
36. RCD does not provide that information.

Your answer was that you would look in the Subject Index under poliomyelitis. You are wrong. You had already read the entry for Wistar Institute (Figure 5). It did not refer to a poliomyelitis study unit. Re-read the question on page 33 and choose another answer.

Your answer is that you would check the Addendum. Wrong. The second edition of Research Centers Directory including the Addendum was published in 1965. The patron has asked about a research unit established in Fall 1968. Return to the question on page 33 and select the correct answer.

Your answer is that base volume of the RCD does not give the information you seek. You are correct. The current volume was published in 1965. Obviously, a research unit established in Fall 1968 would not be included.

Turn to the next page.



### Question

A patron asks for the name of the librarian at the Environmental Design Center, University of Wisconsin. The Center was founded in 1965. He wants to request preprints of articles discussing research results. The Center is not listed in RCD's alphabetical index of research results. How would you respond to this request? Select the correct answer and turn to the appropriate page.

38. Look in the current general catalog for the University of Wisconsin.
39. Look in the Addendum of RCD.
40. Refer to RCD's periodic supplements.

Your answer is that you would refer to the current general catalog for the University of Wisconsin. This is a good choice, but many libraries may not have the catalog. Turn to the preferred answer, which is on page 40.

Your answer is that you would look in RCD's Addendum. You are wrong. The current (second) edition of RCD, including the Addendum, was published in 1965. Since the Environmental Design Center was not founded until 1965, information about it would not appear even in the Addendum. Turn back to the question on page 37 and select another answer.

Your answer is that you would refer to RCD's periodic supplements. You are correct. New Research Centers is published periodically and contains information on newly established nonprofit research centers and on centers that may have inadvertently been missed when the base volume of the RCD was published.

Turn to the next page.

You have now completed the programmed instruction.

On the following page, you will find a set of questions for review purposes.

## Questions

1. The Research Centers Directory includes centers for fundamental and applied studies in the mathematical, physical, life, engineering, and social science, as well as instructional programs that include laboratories and research activities.  

(A) true                      (B) false
2. Names of the principal executives in leading U.S. developmental laboratories can most easily be found in RCD by looking in the index that lists research units.  

(A) true                      (B) false
3. RCD contains three indexes.  

(A) true                      (B) false
4. New Research Centers is a periodical supplement to the Research Centers Directory that contains information on newly established nonprofit research centers.  

(A) true                      (B) false
5. The Addendum to RCD contains information that supplements data already contained in citations.

Turn to the next page for the correct answers.

## Answers

1. (B) false. The Research Centers Directory does not include either instructional programs or internship activities. It does include centers for data gathering in addition to those listed.
2. (A) true
3. (B) false. The correct answer is that RCD contains five indexes: research units, institutions, geographic location of institutions, subjects, and names.
4. (A) true
5. (B) false. The correct answer is that the Addendum to RCD includes listings received too late or with insufficient data for classification within the main volume.

Turn to the next page.

As an additional exercise, use the Research Centers Directory (2nd ed.) and its supplements to obtain the following information:

Which companies in the Greater Chicago area have information retrieval facilities?

What is the name of the head of the Research Division of Virginia Polytechnic Institute?

What information services are provided by the Poliomyelitis research unit allegedly established at the Wistar Institute in Fall 1968?



ELLK

U

**REFERENCE TOOLS and SERVICES**

**Biographical  
Directories**

**On-The-Job Training of Library Personnel**

Produced under contract with the  
U.S. Office of Education  
OEC-1-7-071214-5116, with support  
from the U.S. Army ATLAS Project.



## INTRODUCTION TO DIRECTORIES:

### BIOGRAPHICAL SOURCES

This is a form of "programmed text"--that is, in working with it, you must follow the instructions as to which pages to turn to, rather than reading it through, page by page. It contains a series of multiple-choice questions. At the end of each question are numbered answers; the number of each answer is also the number of the page on which that answer is discussed. Don't worry about getting the wrong answers. The text will help you get through the entire series of questions, whether your first answers are right or wrong.

## Biographical Reference Sources

Did you know that there are more requests for information about people than for any other subject? Studies have confirmed this fact. As a result, much of the available reference information is presented in the form of biography. Biographical sources may be said to fall into three groups:

- (1) universal, which include notable persons of all times and all places;
- (2) retrospective, which are limited to notable persons now dead; and
- (3) current, which answer a wide range of questions on living persons.

There are virtually no problems in using biographical sources. Most of them consist of entries on individual persons arranged in alphabetical order. The most serious difficulty you will encounter is being sure of the accuracy of the information you find in them. The information found in even the most reputable sources often varies widely from that in other, equally reputable, sources. The difficulty is that, in general, biographical data are the most elusive of all facts to establish with certainty.

Most biographical reference works deal with people in specific occupations. These specialized biographical sources offer a number of advantages. Usually, the specialized work includes far more persons in the specific field of minor note than you will find in more general sources. Often, too, each biography is more detailed than in works severely limited in space.

Most important, the care with which specialized sources are prepared and the amount of checking that has been done usually exceeds that found in general sources. Thus, you can rely on the accuracy of the specialized work with a higher degree of certainty.

Turn to the next page.

### Question

A patron enters your library and asks the present professional affiliation of Dr. Grete Lehner Bibring. He would like to contact her about research in clinical psychology in Boston. Select the biographical source you would use and turn to the appropriate page.

4. American Women of Science
5. Chambers' Dictionary of Scientists
6. American Men of Science

Your answer is that you would consult American Women of Science. You are wrong. This reference work contains fairly long biographies of a dozen prominent American Women Scientists; but Dr. Grete Bibring is not among them. Return to page 3 and select another answer.

Your answer is that you would seek the information in Chambers' Dictionary of Scientists. You are wrong. This British book presents concise biographies of scientists, primarily of the past and with emphasis on Europeans. Turn back to page 3 and select the correct answer.

Your answer is American Men of Science. You are correct. The fact that Dr. Bibring is a woman does not exclude her from being listed in this reference source.

Turn to the next page.



### American Men of Science

The first edition of American Men of Science appeared in 1906. Beginning with the ninth edition, division was made between the physical and biological sciences and the social sciences. American Men of Science is revised at irregular intervals. Revisions appear one volume at a time--that is, it takes 2-3 years to revise the entire set.

- A. Achievement, by reason of experience and training, of a stature in scientific work at least equivalent to that associated with the doctorate degree, coupled with presently continued activity in such work, or,
- B. Research activity of high quality in science or evidenced by publication in reputable scientific journals; or, for those whose work cannot be published because of governmental or commercial or industrial security, research activity of high quality in science as evidenced by the judgement of the individual's peers among his immediate co-workers, or,
- C. Attainment of a position of substantial responsibility requiring scientific training and experience of approximately the extent described for (A) and (B).

The biographical information is arranged alphabetically within each section. Figure 1 on the next page shows American Men of Science and its Supplements. Notice that the complete eleventh edition of the Physical and Biological Sciences portion is available but that the tenth edition of the Social and Behavioral Sciences volume is still being used.

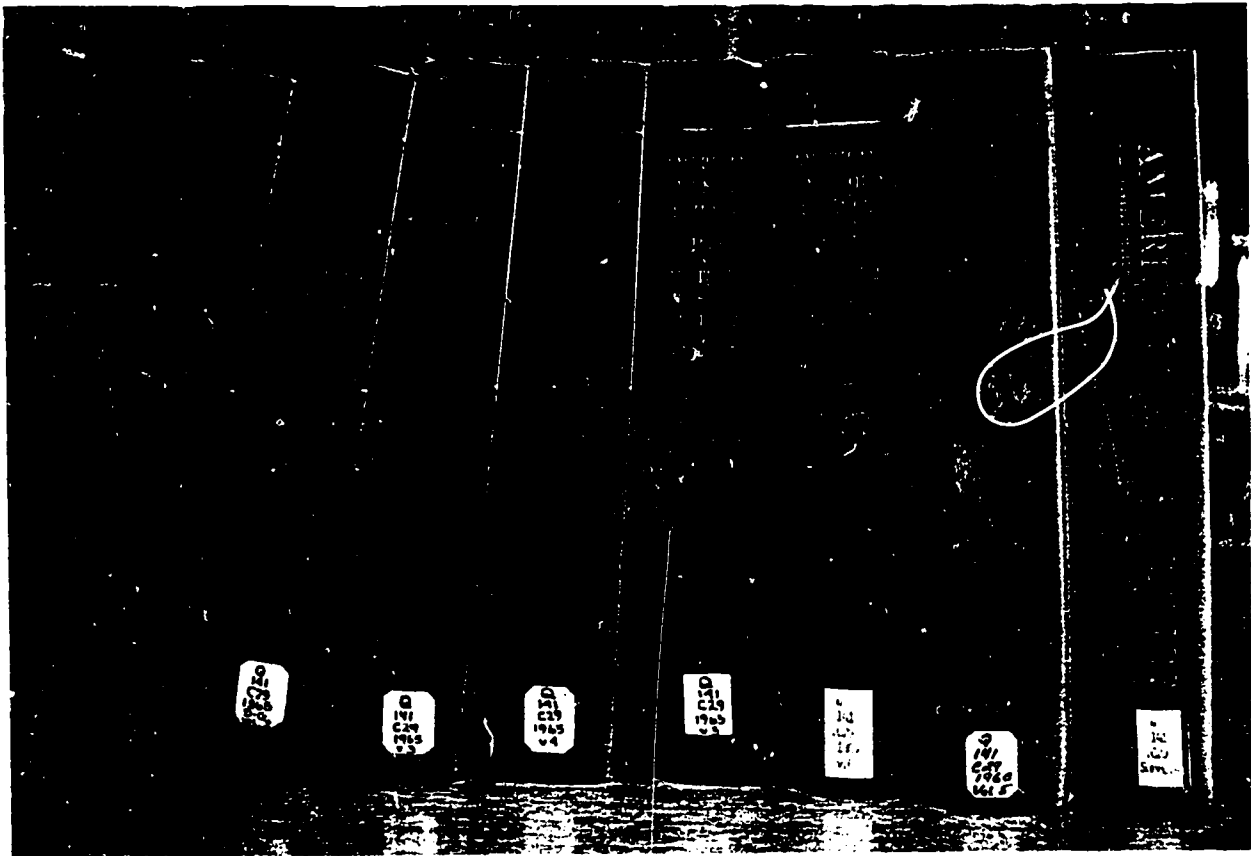


Figure 1. American Men of Science and its Supplements

The Supplements are designed to give significant new data on scientists whose biographies appear in the base volumes. This information covers changes in position and address, deceased notices, and a few other items of importance.

Turn to the next page.

## Question

A patron comes into your library and asks for complete biographical information on Professor Hans A. Bethe, including all awards received since 1955. Study Figure 2 and Figure 3 and then supply the data below. Turn to page 12 to be sure your answers are the correct ones.

- a. Date and place of birth: \_\_\_\_\_
- b. Address of place of employment: \_\_\_\_\_
- c. Field: \_\_\_\_\_
- d. Marital Status: \_\_\_\_\_
- e. Children: \_\_\_\_\_
- f. University, major, date of graduation, degree: \_\_\_\_\_  
\_\_\_\_\_
- g. Professional societies: \_\_\_\_\_  
\_\_\_\_\_
- h. Current job duties: \_\_\_\_\_
- i. Awards since 1955: \_\_\_\_\_
- j. Year naturalized: \_\_\_\_\_

- asst. prof, 33-36, assoc. prof, 36-46, PROF. 46-, ASST. PROF. ANAT. 29-  
instr, 24-29. Consult, U.S. Vet. Admin, 45-; Dipl. Am. Bd. Surg, 37. Med.C.  
U.S.A, 42-43; Legion of Merit, 43. An. Anat; fel. Col. Surg; Surg. An.  
Biliary tract disease; colon and gastric surgery.
- BEST, LT. COL. WILLIAM J., U.S.A.F. (RET).** U.S. Air Force Office of Sci-  
entific Research, Washington, D.C. GEOPHYSICS, SEISMOLOGY. Green-  
ville, Pa, July 3, 31; m. 45; c. 3. B.S. Thiel Col, 43; Carnegie Inst. Tech,  
47; M.S. St. Louis, 52. Asst. metall. Carnegie Inst. Tech, 46-47; weather  
officer, U.S. Air Force, 47-50, res. officer seismol, 52-57, geophysics, 58-61;  
CHIEF DIV. GEOPHYS. AIR FORCE OFF. SCI. RES, 61- U.S.A.F. 43-64.  
Geophys. Union. Synoptic and dynamic meteorology; high vacuum tech-  
niques for degassing metals; micro-pressure and temperature oscillations  
in the atmosphere; earth's mantle and crustal structure; identification of  
earthquakes and nuclear explosions.
- BEST, DR. WILLIAM ROBERT,** 640 S. Wood St, Chicago 12, ILL. HEMA-  
TOLOGY. Chicago, Ill, July 14, 22; m. 44; c. 2. B.S. Illinois, 48, M.D. 47,  
M.B. 51. Clin. asst. M.D. ILLINOIS, 48-49, clin. instr, 52-53, asst. prof,  
53-63, ASSOC. PROF, 63-, ASST. DIR. AEROMED. LAB, 64- Attend. physi-  
cian & hematologist, Illinois Res. & Ed. Hosp, 53-; consult, Vet. Admin.  
Hosp. Hines, 53-; Grant Hosp, 54- Dipl. Am. Bd. Internal Med, 57. U.S.A,  
43-48, Med.C., 51-53, Lt. AAAS; Fedn. Clin. Res; Soc. Biom; Int. Soc.  
Hemat. Leukemia; pernicious anemia; statistical methods; computers in  
medicine.
- BEST, DR. WILLIAM VALGREN,** Chemistry Section, Midwest Research Insti-  
tute, Kansas City, Mo. PHYSICAL CHEMISTRY. Kansas, Mo, Dec. 17, 31;  
m. 56; c. 1, A.B. Cent. Methodist Col, 53; M.S. Missouri, 58, summer, Nat.  
Sci. Found, 59, Ph.D. (phys. chem), 61, ASSOC. CHEMIST, MIDWEST  
RES. INST, 61-69, Chem. Soc. Research Soc. Thermal accom-  
modations; coefficients; adsorption of alkali metals; preparation of ultrapure  
materials; production of high vacuums.
- BESTE, DR. EUGENE W(ELLES),** Union Carbide Plastics Co, River Rd,  
Bound Brook, N.J. CHEMISTRY. Pasadena, Calif, June 21, 12; m. 34; c.  
3. B.S. Monmouth Col.(Ill), 32; univ. fel, Columbia, 36-37, Ph.D.(chem), 37.  
Asst. chem, Columbia, 33-36; res. chemist, UNION CARBIDE PLASTICS  
CO, 37-46, div. head, res. dept, 48-51, sect. head, 51-58, ASST. DIR, 58-  
AAAS; Chem. Soc. Thermodynamics of dilute solutions of electrolytes;  
vinyl polymerization and copolymerization; condensation polymers.
- BESTE, DR. GEORGE WILLIAM,** Ethyl Corp, Box 341, Baton Rouge 1, La.  
CHEMISTRY. Monmouth, Ill, May 13, 18; m. 39; c. 3. B.S. Monmouth Col,  
36; Ph.D.(phys. chem), Columbia, 41; hon. D.Sc., Monmouth Col, 58. Chem-  
ist, ETHYL CORP, 40-48, develop. sect. manager, 48-51, assoc. dir. chem.  
develop, 51-58, gen. mgr. res. & develop, 58-63, MGR. ADMIN, 63- Consult,  
U.S. Army, 48-49. Chem. Soc; Soc. German Chem. Chemical process de-  
velopment in tetra-ethyl lead, lead-sodium alloys and antiknock compounds;  
reaction mechanisms.
- BESTE, DR. LAWRENCE F(ORWOOD),** E.I. de Pont de Nemours & Co. Wil-  
mington 98, Del. PHYSIC-CHEMISTRY. Grand Island, Neb., Jan. 11, 09;  
m. 45; c. 1, M.B. Chicago Medical Col, 30; B.S. Monmouth Col, 43; Ph.D.  
(phys. chem), Illinois, 45. Asst. Reconstruct. Finance Corp, Ill, 43-45; res.  
chemist, textile fibers dept, E.I. DU PONT DE NEMOURS & CO, 45-47, res.  
group leader, 47-49, res. suvr, 49-54, sr. res. assoc, 54-61, RES. FEL,  
61. Chem. Soc; Soc. Rheol. Solution properties of high polymers; mechan-  
ical properties of fibers and fabrics; polymer solubility.
- BESTER, DR. JOHN (FRANCIS),** 38014 Avenida Cuderno, San Pedro, Calif.  
PHARMACOLOGY. Cargill, Ont, Can, Apr. 17, 22; m. 46; c. 3. B.Sc.  
Saskatchewan, 46; M.Sc. Ohio State, 50, Ph.D. (pharmacol), 52. ASST. PROF.  
pharmacol, Ferris Inst, 52-53; PHARM. SCH. PHARM. SOUTHERN CALI-  
FORNIA, 53- R.C.A.P. 52-58. AAAS; Pharmacol. Ass. Intravenous anes-  
thetics; diuretics; protein bound iodine metabolism; muscle relaxants.
- BESTUL, DR. ALEKX (KECHER),** 9400 Overlea Dr, Rockville, Md. PHYSI-  
CAL CHEMISTRY. Forestburg, S.Dak, Sept. 1, 21; m. 47; c. 4. B.A. R.S.  
Ola Col, 42; M.S. Pa. State Col, 44; Ph.D.(chem), Maryland, 54. Res. asst.  
cryogen, Pa. State Col, 44-45; res. thermochemist, Stamford Res. Labs,  
Am. Cyanamid Co, 46-48; RES. PHYSICIST, NAT. BUR. STANDARDS, 48-  
AAAS; Chem. Soc; Phys. Soc; Soc. Rheol; Ceramic Soc; Brit. Soc. Glass  
Tech. Molecular structure in the vitreous state; rheology of polymers;  
thermochemistry of organic compounds.
- BETCROV, DR. ROBERT,** 3312 Pico Ave, Manhattan Beach, Calif. PHYSI-  
CAL. Zurich, Oct. 12, 19; nat; m. 48; c. 2. B.A. Col. de Geneve, 39; lic. sci.  
math, Geneva, 41, lic. sci. physics, 49; Ph.D.(physical), Berns, 46. Physi-  
cist, Swiss Fed. Govt, 43-48; chief asst. Dutch Inst. Tech, Delft, 47-49;  
asst. prof, Maryland, 49-54; res. assoc, George Washington, 54-55; lectr,  
Ephraim, 55-57; SCIENTIST, Douglas Aircraft, Calif, 57-59; Space Tech.  
Lab, 59-60; AEROSPACE CORP, 60- Lectr, California, Los Angeles, 57-  
Swiss Mil. Serv, 39-45. AAAS; Phys. Soc. Fluid dynamics; electronics;  
applied mathematics.
- BETH, DR. ERIC WALTER,** 74 Merrimac St, Buffalo, N.Y. PHYSICS. Vi-  
enna, Austria, June 7, 12; nat. Vienna, 30-31, 33-35, Ph.D.(physics), 34; Go-  
ttingen, 31-32; Munich, 32-33; Copenhagen; Utrecht; Cambridge; California;  
Reed Col. Asst. physics, Vienna, 36-37; res. fel, California, 37-38, asst.  
38; physics, Reed Col, 39-40; via. lectr. physics & math, Mills Col, 40-41;  
instr. physics, Ill. Inst. Tech, 41-43; spec. consult. physics, Electronic  
Res. Labs, Cambridge, Mass, 44-53; mem. sci. stud. Makhar, Inc, 53-54;  
physicist, Univ. Switch & Signal Div, Westinghouse Air Brake Co, 54-63;  
ASST. PROF. PHYSICS, STATE UNIV. N.Y. BUFFALO, 63- U.S.A., 41, 42-  
45. Wave mechanics; quantum theory of the non-ideal gas; upper air  
properties.
- BETH, DR. RICHARD A(LIKANDER),** 1 Leisurely Lane, Bellport, L.I., N.Y.  
PHYSICS, MATHEMATICS. New York, N.Y., Jan. 14, 06; m. 43; c. 2. B.S.  
Worcester Polytech, 27, M.S., 28; An. exchange fel, Germany, 29-32; Alex-
- ander von Humboldt Foundation fel, Frankfurt, 30-32, Dr. Phil. Nat.(math),  
32; hon. D.Sc., Worcester Polytech, 63. Instr. physics, Worcester Polytech,  
27-29, asst. prof, 32-39; assoc. prof. appl. math, Mich. State Col, 39-41;  
consult, div. two, nat. defense res. cmt, Princeton 40-45; consult, Off. Sci.  
Res. & Develop, 45; prof. physics & head dept, Western Reserve, 46-47;  
Perkins Prof, 47-55; Fulbright prof, Univ. Innsbruck, Austria, 54-58; PHYS-  
ICIST, BROOKHAVEN NAT. LAB, 55- Consult bomb damage surv, inst.  
res. Lehigh, 48-49. Res. assoc, Princeton, 34-36; consult, Wang Labs,  
New York, 42-43. Mem. cmt. fundamental phys. constants, Nat. Res. Coun,  
41. Rep. Com. Argonne Nat. Lab, 47-54, physicist, cmt. passive protection  
against bombing, Nat. Res. Coun, 40-42; cmt. fertilization design, 43-45;  
Alcoa Mission, War Dept, G-2, 45; via. physicist, Brookhaven Nat. Lab, sum-  
mers, 51, 53, 54; assoc. ed. Am. Jour. Physics, 53-56; grad. fellowship  
panel, Nat. Sci. Found, 54, 59, 60; Fulbright guest prof, Bonn, 63-64. U.S.  
Cert. Merit, 48. AAAS; fel, Phys. Soc; Math. Soc; Optical Soc; Sci. Re-  
search Soc; Am. Physics Teachers. Orthogonal functions; mechanical ef-  
fects of light; fundamental physical constants; terminal ballistics; elasticit;  
magnetic fields; particle accelerators.
- BETHARD, DR. WILLIAM F(REDERICK),** 10955 John Jay Hopkins Dr, San  
Diego, Calif. HEMATOLOGY, RADIOBIOLOGY. Richmond, Ind, Sept. 17,  
18; m. 42; c. 2. B.S. Chicago, 13; M.D., 42. Intern, St. Luke's Hosp, San  
Francisco, 42-43; asst. res. asst, Chicago, 47-50, Deacon Ramseyer fel, clin.  
res. fel, 50-52, asst. prof. rad, 52-54; radiation physicist, Scripps Inst. Biol,  
45-49; MED. DIR., GEN. ATOMIC DIV, GEN. DYNAMICS CORP, 50-  
Consult, dept. nuclear rad. & radiation biol, sch. med, California, Los An-  
geles. U.S.N.R., 45-50. U. Comdr. Am. Cancer Res; Radiation Res. Soc;  
Fech. Clin. Res. Biol. irradiation; biologic effects of radiation.
- BETHS, PROF. HANS J.(HREJNY),** Nuclear Studies Lab, Cornell Uni-  
versity, Ithaca, N.Y. THEORETICAL PHYSICS. Strasbourg, Germany, July 2,  
06; nat; m. 39; c. 2. Frankfurt, 24-26; Ph.D.(physics), Munich, 28; hon.  
D.Sc. Polytech. Inst. Brooklyn, 50, Denver, 51; Chicago, 53, Birmingham,  
England, 54, Harvard, 57. Instr. PHYS. & Phil., 52-59; Stuttgart, 29;  
lectr. Munich, 30-33; Manchester, England, 33-34; fel, Bristol, 34-36; asst.  
prof, CORNELL, 36-37, PROF, 37- Sociologist Found, 34. Ed. Bd. fel,  
Cambridge & Rome, 30-31; staff mem. radiation lab, Mass. Inst. Tech, 42-  
45; chief theor. physicist dir, Los Alamos Sci. Lab, N. Mex, 45-48; via.  
prof, Columbia, 41, 48; Cambridge, 54-55; Calif. Inst. Tech, 64. Consult,  
Los Alamos Sci. Lab, 47-; Avco Res. Lab, 58-; Atomic Power Develop.  
Assoc., 53-; Gen. Atomic Power Div. of Gen. Dynamics, 53-; President's  
Sci. Adv. Cmt, 56-58. Morrison prize, N.Y. Acad. Sci, 38, 40; U.S. Medal  
Merit, 46; Planck medal, 55; Enrico Fermi Prize, U.S. Atomic Energy  
Cmn, 51. Mem. U.S. delegation to Discussions on Discontinuities of Nu-  
clear Weapons Tests, Geneva, 58-59. Nat. Acad. (Draper medal, 48); fel.  
Phys. Soc.(pres, 54); Astron. Soc; Philos. Soc; Royal Soc. London. Quantum  
theory of atoms; theory of metals; quantum theory of collision; theory of  
atomic nuclei; meson theory; energy production in stars; quantum elec-  
trodynamics; shock wave theory.
- BETHEA, DR. OSCAR W(ALTER),** Internal Med, see 10th ed, Phys. & Biol.  
Vols.
- BETHELL, DR. JOSEPH (JAY),** Albert Einstein College of Medicine, Yeshi-  
va University, New York 51, N.Y. BIOCHEMISTRY. New York, N.Y.,  
April 16, 24; m. 48; c. 2. B.S. City Col, 44; M.S. Wisconsin, 47, Ph.D.(bio-  
chem), 49. Research asst, dept. chem, Office Sci. Research & Develop.  
prof, Columbia, 44-48; instr. BIOCHEM, sch. med. & dent, Rochester, 50-  
54, asst. prof, 54-55; ALBERT EINSTEIN COL. MED, YERKES, 55-58,  
ASSOC. PROF, 58- U.S. Pub. Health Serv, fel, Inst. Enzyme Research,  
Wisconsin, 49-50. AAAS; Biochem. Soc; Chem. Soc. Protein chemistry and  
structure; intermediary metabolism; regulation of protein biosynthesis;  
nutrition.
- BETHEL, DR. JAMES (SAMUEL),** 3818 E. Mercer Way, Mercer Island, Wash.  
WOOD TECHNOLOGY. New Westminster, B.C. Can, Aug. 13, 15; m. 41;  
3. B.S.T. Washington (Seattle), 37; M.F. Doka, 39, D.F. 47. Instr. for-  
estry, Pa. State Col, 39-41; asst. prof, Va. Polytech, 41-43; asst. mgr. tech,  
Tidewater Plywood Co, Ga, 43-48, prof. agr, 48-49; assoc. prof. wood tech,  
N.C. State Col, 49-50, prof. & dir. wood prod. lab, 50-58, head, wood prod.  
dept. & acting dean, grad. sch, 58-59; head spec. prof. sci. ed. sect. Nat.  
Sci. Found, 59-63; assoc. dean grad. sch, WASHINGTON (SEATTLE), 63-  
64, DEAN COL. FORESTRY, 64- UN consult, Yugoslavia, 52; adv. Econ.  
Develop. Admin, P.R., 58; consult, Governor's Res. Triangle, N.C., 57-59;  
mem. exec. cmt. & dir. Orpn. Trop. Studies, 63- U.S.A.F. 43-48, Fel.  
AAAS; Soc. Foresters (ed. law); Forest Prod. Res. Soc; Soc. Wood Sci. &  
Tech. (pres, 58-59, 60-61); Ent. Soc; Brit. Inst. Wood Sci. Wood science,  
especially anatomy and morphology; relationship of environment to struc-  
ture of wood in forest trees; wood moisture relationships.
- BETHEM, PROF. AUGUST J.,** Dept. of Mathematics, California State College,  
California, Pa. MATHEMATICS. Cecil, Pa, Jan. 1, 25; m. 42; c. 2. B.A.  
Washington & Jefferson Col, 48, M.A., 53; M.S. Illinois, 58; Cornell, 60; fel,  
Pittsburgh, 63-64. Instr. MATH, Washington & Jefferson Col, 48-51; pub.  
sche, Pa, 51-60; ASSOC. PROF, CALIFORNIA STATE COL.(PA), 60- U.S.A.,  
43-48, Sgt. Training for secondary mathematics teachers.
- BETRKE, DR. GEORGE WILLIAM, JR.,** Space Technology Center, P.O. Box  
8533, General Electric Co, Philadelphia 1, Pa. PHYSICAL CHEMISTRY.  
Green Bay, Wis, July 17, 30; m. 63. B.S. Wisconsin, 52; M.A. Harvard, 54;  
Standard Oil of Ill. & Calif. fel, Harvard, Ph.D.(phys. chem), 56. PHYSI-  
CIST, GEN. ELEC. CO, 56- Phys. Soc. Plasma physics; shock tubes;  
plasma diagnostics; spectroscopy; plasma-microwave interaction.
- BETRKE, DR. PHILIP M(ARTIN),** 5733 Ridge Rd Bethesda 14, Md. GEOLO-  
GY. Chicago, Ill, Mar. 22, 30; m. 65; c. 6. B.A. Amherst Col, 52; Kemp  
fel, Columbia, 54-55, M.A., 54, Ph.D.(geol), 57. Asst. geol, Columbia, 52-  
53, res. asst, 53-54; asst. prof, Mo. Sch. Mines, 55-59; GEOLOGIST, U.S.  
GEOLOG. SURV, 57- Geologist, U.S. Atomic Energy Cmn, summer, 53; lectr,  
Haver Col, summer, 54. Geol. Soc; Geochem. Soc; Mineral Soc. Soc. Econ.

BEST - BICKEL

50

health sci. 67-. National Institutes of Health, Room 430, 7550 Wisconsin Ave., Bethesda, Md. 20014.

**BEST, PROF. JAY BOYD**, b. Tulsa, Okla., Nov. 31, 31. **PHYSIOLOGY, BIO-PHYSICS**. A.B. Texas, 47; Ph.D. (physiol.), Chicago, 53. Res. assoc. psychol., Chicago, 53-58; biophysicist, Walter Reed Army Inst. Res., 58-60; assoc. prof. physiol., col. med., Illinois, 60-63; **PROF. PHYSIOL. & BIO-PHYS.** COLORADO STATE, 63. Nat. Insts. Health grant, 61-67; res. fel., Chicago, 68-69; NASA grants, 64-67. U.S.A.-F. 48-49, 1st Lt. Fed. AAAS Soc. Zool. Mathematical biophysics; molecular mechanisms of memory, different ion and aging; psychophysiology. Address: Dept. of Physiology & Biophysics, Colorado State University, Ft. Collins, Colo. 80531.

**BEST, PROF. RAYMOND VICTOR**. Geology. See 11th ed, Phys. & Biol. Vols. New position: Assoc. prof., 67-, Dept. of Geology, University of British Columbia, Vancouver, B.C., Can.

**BETHE, PROF. HANS ALBRECHT**. Theoretical Physics. See 11th ed, Phys. & Biol. Vols. New information: Nobel Prize in Physics, 67. Address: Nuclear Studies Lab, Cornell University, Ithaca, N.Y. 14850.

**BETHEA, DR. TRISTRAM WALKER**, b. Lancaster, S.C., July 29, 38. **ORGANIC CHEMISTRY**. B.S. Davidson Col., 60; M.S. Clemson, 61, Ph.D. (org. chem), 68. U.S. Air Force res. assoc., Case, 64-66; **RES. CHEMIST, CENT. RES. LAB. FIRESTONE TIRE & RUBBER CO.**, 67- Casem. Soc. Organometallic and transition metal chemistry; free radical chemistry; heavy metal decarbonylation of acids; synthetic organic chemistry; steroids. Address: 2485 Shoreline Dr., Akron, Ohio 44314.

**BETHUNE, DR. JOHN EDMUND**. Endocrinology. See 11th ed, Phys. & Biol. Vols. New position: Also head, sect. endocrinol. & dir. clin. res. center, University of Southern California, 3025 Zonal Ave., Los Angeles, Calif. 90032.

**BETTS, DR. DONALD DRYSDALE**. Theoretical Physics. See 11th ed, Phys. & Biol. Vols. New position: Prof., 66-, Dept. of Physics, University of Alberta, Edmonton, Alta., Can.

**BETTS, DR. ROBERT HOLLADAY**. Physical Chemistry. See 11th ed, Phys. & Biol. Vols. New position & address: Prof. & head dept. chem., 66-, University of Manitoba, Winnipeg 19, Man., Can.

**BETZ, LEROY DREW**. Chemistry. See 11th ed, Phys. & Biol. Vols. New position: Emer. chem. hd. dir., Betz Labs, Inc., Independence Mall West, Sixth & Market Sts., Philadelphia, Pa. 19106.

**BEUTNER, HAROLD**. Chemical Engineering. See 11th ed, Phys. & Biol. Vols. New position: Dir. process res., Gulf Research & Development Co., P.O. Drawer 2038, Pittsburgh, Pa. 15230.

**BEVAN, DR. ARTHUR (CHARLES)**. Geology. See 11th ed, Phys. & Biol. Vols. New information: Retired from Ill. State Geol. Surv. Address: 1784 Englewood Dr., Staunton, Va. 24401.

**BEVAN, PROF. WILLIAM, JR.** Psychology. See 11th ed, Soc. & Behav. Vols.

**BEVER, DR. CHRISTOPHER THEODORE**. Psychiatry. See 11th ed, Phys. & Biol. Vols. New information: Assoc. clin. prof. psychiat., med. sch., George Washington, 65-66; pres., D.C. Inst. Ment. Hyg., 66- Address: 2141 K R. N.W., Washington, D.C. 20037.

**BEVERLY, DR. WILLIAM B.**, b. Jenkins, Ky., Dec. 31, 30. **NUCLEAR PHYSICS**. B.S. Lincoln Mem. Univ., 51; M.S. Virginia, 57, Ph.D. (physics), 59. **PHYSICIST**, Nat. Bur. Standards, 59-66; **U.S. ARMY NUCLEAR DEFENSE LAB.**, 66- U.S.N., 51-55. Neutron spectroscopy and dosimetry; neutron and gamma Monte Carlo transport calculations. Address: 331 Hardwick Place, Joppatowne, Md. 21085.

**BEVIER, GEORGE A.**, b. Bogota, Colombia, Apr. 31, 28; U.S. citizen; m. 51; c. 4. **MEDICAL ENTOMOLOGY**. A.B. Stanford, 48. Entomologist, Pan Am. Health Org., 55-58; gen. mgr. La Exterminadora, Dominican Repob., 58-60; adv. malaria eradication prog. Agency Int. Develop., Managua, Nicaragua, 61-64; entomologist **Aedes Aegypti** ERADICATION PROG., NAT. COMMUN. DISEASE CENTER, U.S. PUB. HEALTH SERV., 64-66. **CHIEF OPERS.** 66- Med.Serv.C, 51-54, 1st Lt. Entom. Soc. Am.; Mosquito Control. Assn. Applied control for arthropod vectors of human diseases, especially yellow fever and malaria; sylvatic yellow fever ecology. Address: Aedes Aegypti Eradication Branch, National Communicable Disease Center, U.S. Public Health Service, Atlanta, Ga. 30333.

**BEVIS, DR. HERBERT ANDERSON**. Sanitary Engineering. See 11th ed, Phys. & Biol. Vols. New position: Assoc. prof., 66-, Dept. of Environmental Engineering, University of Florida, Gainesville, Fla. 32601.

**KEYCHOK, DR. SHERMAN**. Physical Chemistry. See 11th ed, Phys. & Biol. Vols. New position & address: Assoc. prof. biophys. & chem., subcom. biophys., Dept. of Biological Sciences, Columbia University, N.Y. 10027.

**BEYER, DR. EDGAR SHERMAN**. Plant Breeding & Genetics. See 11th ed, Phys. & Biol. Vols. New position: Res. dir., Farm Seed Res. Corp., 66- Address: Ferry-Morse, Box 8, San Juan Bautista, Calif. 95045.

**BEYER, DR. LOUIS MARTIN**, b. Paducah, Ky., Nov. 7, 28; m. 56; c. 2. **NUCLEAR PHYSICS**. B.S. Murray State, 62; Nat. Defense Ed. Act fel., BECH. Subs, 63-65, M.S., 63, Ph.D. (nuclear physics), 67. **ASST. PROF. PHYSICS**, MURRAY STATE, 67- Low energy nuclear structure by methods of beta and gamma ray spectroscopy. Address: Dept. of Physics, Murray State University, Murray, Ky. 42071.

**BEYER, DR. WILLIAM EITMAN**. Mathematical Statistics, Mathematics. See Suppl. II to 11th ed, Phys. & Biol. Vols. New position: Prof. math. & statist., 66-. University of Akron, Akron, Ohio 44304.

**BEYLER, DR. ROGER E(LDON)**. Organic Chemistry. See 11th ed, Phys. & Biol. Vols. New position: Dean, 66-, College of Liberal Arts & Sciences, Southern Illinois University, Carbondale, Ill. 62901.

**BHALLA, DR. CHANDER P.**, b. Hariana, India, Sept. 15, 22; m. 62; c. 3. **NUCLEAR & REACTOR PHYSICS**. B.S. Punjab, India, 52, Hon. 54, M.S. 55; Ph.D. (physics), Tennessee, 60. Asst. physics, Tennessee, 58-60; sr. scientist, Westinghouse Elec. Corp., Pa. 60-64; asst. prof. **PHYSICS**, Alabama, 64-68, **ASSOC. PROF.**, 65-66; **KANSAS STATE**, 66- Summers, 1st Univ. Colorado, 60, resident res. assoc., Argonne Nat. Lab., 66. Consult., Oak Ridge Nat. Lab., 58-60; Nat. Bur. Standards, D.C. 62-64; space div., Northrop Corp., Ala., 65-; Argonne Nat. Lab., 66- Nuclear Soc.; Phys. Soc. Atomic physics. Address: Dept. of Physics, Kansas State University, Manhattan, Kans. 66502.

**BEATIA, DR. N(AM) PARSHAD**. Mathematics. See 11th ed, Phys. & Biol. Vols. New information: Ed. Math. Systs. Theory. Address: Dept. of Mathematics, Case-Western Reserve University, Cleveland, Ohio 44106.

**BEATTACHARYA, DR. A. K.**, b. Allahabad, India, Oct. 14, 25; m. 64. **NUCLEAR ENGINEERING, PHYSICS**. B.Sc. Lucknow, 54, M.Sc. 58; fel. Ind. Nat. Nuclear Physics, India, 57; Ph.D. (nuclear eng.), Illinois, Urbana, 66. Res. assoc. gas electronics, Illinois, Urbana, 66-67; **RES. PHYSICIST, OEN. KLEC. CO.**, 67- Gaseous discharge; electronic, atomic and molecular processes in a gaseous plasma. Address: Lighting Research Lab, General Electric Co., Nela Park, Cleveland, Ohio 44113.

**BEATTACHARYA, DR. RAM NDR KUMAR**. Mathematics. See Suppl. II to 11th ed, Phys. & Biol. Vols. New position & address: Asst. prof., 67-, Dept. of Mathematics, Southern Illinois University, Carbondale, Ill. 62903.

**BEUTA, DR. PRAVIN G.** Applied Mechanics & Mathematics. See 11th ed, Phys. & Biol. Vols. New information: Asst. head, spec. prof. sect., TRW Systs., 63-64, mgr. adv. tech. dept., 66-; adj. assoc. prof., Southern California, 63- Address: 5307 Calle Mayor, Torrance, Calif. 90503.

**BIAGGI, DR. VIRGLIO, JR.** Ornithology. See 11th ed, Phys. & Biol. Vols. Correction: Dir. biol. dept., Puerto Rico, 58- Address: College Station, Mayaguez, P.R. 00708.

**BIANCHERIA, DR. AMILCARE**. Physical Chemistry. See 11th ed, Phys. & Biol. Vols. New position: Fel. engr., 66-, Advanced Reactors Division, Westinghouse Electric Corp., P.O. Box 1585, Pittsburgh, Pa. 15230.

**BIANCHI, DR. C(ARMINE) PAUL**. Cell Physiology. See 11th ed, Phys. & Biol. Vols. New position: Assoc. prof. physiol., 66-, University of Pennsylvania Medical School, Philadelphia, Pa. 19104.

**BIANCHI, DONALD ERNEST**. Physiology. See 11th ed, Phys. & Biol. Vols. New position: Prof., 66-, Dept. of Biology, San Fernando Valley State College, 18111 Nordhoff St., Northridge, Calif. 91324.

**BIANCO, DR. DONALD R.** Physics. See 11th ed, Phys. & Biol. Vols. New position: Group super., Bendix Aerospace Systs. Div., 66- Address: 8253 N. Antenor Rd., Howell, Mich. 48843.

**BIBBERO, ROBERT JOSEPH**. Electronics. See 11th ed, Phys. & Biol. Vols. New position: V. pres. & dir., Tech. Anal. Group, Inc., New York. Address: 417 Meadow Lane, Merion, Pa. 19068.

**BIBBY, DR. MALCOLM**, b. Mountain Park, Alta. Can., Aug. 28, 39; m. 66. **PHYSICAL METALLURGY**. B.Sc. Alberta, 61, M.Sc. 63, Ph.D. (phys. metall.), 65. Mem. tech. staff, solid state device labs, Bell Tel. Labs., 66-68; **ASST. PROF. ENG.** CARLETON (CAN), 66- Soc. Met'ls. Magnetic properties of materials. Address: Dept. of Engineering, Carleton University, Ottawa, Ont., Can.

**BIBRING, DR. GRETE LEHNER**. Psychiatry. See 11th ed, Phys. & Biol. Vols. New information: Emer. clin. prof. psychiat., Harvard & emer. psychiatrist-in-charge, Beth Israel Hosp., 65-; res. consult. psychoanal. psychol., Radcliffe Col., 63-; consult. psychiatrist, serv. Faulkner Hosp., 66- Address: 47 Garden St., Cambridge, Mass. 02138.

**BICK, DR. THEODORE A.**, b. Brooklyn, N.Y., Dec. 18, 30; m. 54; c. 4. **MATHEMATICS**. B.S. Union Col., 58; M.S. Rochester, 60, Ph.D. (ergodic theory), 64. Instr. **MATH.** Hobart & William Smith Colls., 61-64, asst. prof., 64-65, **ASSOC. PROF.**, 65-66; **UNION COL. (N.Y.)**, 66- U.S.M.C., 50-53, Sgt. Math. Soc.; Math. Assn. Ergodic theory; functional analysis; real variable theory; measure and integration. Address: Dept. of Mathematics, Union College, Schenectady, N.Y. 12308.

**BICKEL, DR. CHARLES L(ESTER)**. Organic Chemistry. See 11th ed, Phys. & Biol. Vols. New position: Harlan Page Amen prof., Phillips Exeter Academy, Exeter, N.H. 03833.

**BICKEL, DR. PETER J.**, b. Bucharest, Romania, Sept. 31, 40; U.S. citizen; m. 64; c. 1. **MATHEMATICAL STATISTICS**. A.B. California, Berkeley, 60, M.A., 61, Ph.D. (statist.), 63. Asst. prof. **STATIST.** CALIFORNIA, BERKELEY, 63-67, **ASSOC. PROF.**, 67- Lectr., Imp. Col., London, 65-66, Inst. Math. Statist.; Am. Statist. Ass.; Royal Statist. Soc. Nonparametric statistics; sequential analysis. Address: Dept. of Statistics, University of California, Berkeley, Calif. 94720.

**BICKEL, DR. THOMAS FULCHER**. Algebra. See Suppl. II to 11th ed, Phys. & Biol. Vols. New position & address: Asst. prof., 67-, Dept. of Mathematics, Dartmouth College, Hanover, N.H. 03755.

**BICKEL, DR. WILLIAM SAMUEL**, b. Ottaville, Pa., June 8, 37. **EXPERIMENTAL PHYSICS, SPECTROSCOPY**. B.S. Pa. State, 59, Ph.D. (physics), 63. Res. assoc. **PHYSICS**, ARIZONA, 65, **ASST. PROF.**, 65- Phys. Soc. Plasma spectroscopic diagnostics; atomic physics; spectroscopy of fast excited ions

Figure 3

You are correct if you gave the following answers:

- a. July 2, 1906, Strasbourg, Germany
- b. Nuclear Studies Lab., Cornell University, Ithaca, N. Y.
- c. Theoretical physics
- d. Married in 1939
- e. 2 children
- f. Frankfurt, 1924-1926; Ph.D. (physics), Munich, 1928; hon. D.Sc. Polytech Inst. Brooklyn, 1950; Denver, 1952; Chicago, 1953; Birmingham, Engl., 1956; Harvard, 1958.
- g. Nat. Acad., Phys. Soc., Astron. Soc., Philos. Soc., Royal Soc., London.
- h. Professor, Cornell University; Consultant, Los Alamos Sci.Lab.; Avco Res. Lab., Atomic Power Develop. Assocs., Gen. Atomic Power Div. of General Dynamics.
- i. Enrico Fermi Prize, AEC, 1961; Nobel Prize in Physics, 1967.
- j. Not given

Turn to page 13.

### Question

A patron asks you to consult the current edition (11th) of American Men of Science for information about Dr. Theodore von Karman, who died several years ago. How would you respond to this request? Select the correct answer and turn to the appropriate page.

14. Tell the patron that the current edition of American Men of Science will not have information about Dr. von Karman because he is now dead and that it is therefore useless to look.
15. Do as requested.
16. Seek the information in Leading American Men of Science.

Your answer is that you would tell the patron that the current edition of American Men of Science does not have information about Dr. von Karman because he is now dead. You are wrong. It is true that there will not be a biographical citation; however, the current edition will be helpful to you in your search for information. Return to page 13 and select the correct answer.



Your answer is that you would do as requested. You are correct. The current edition of American Men of Science will not have a biographical citation for Dr. von Karman, but it will refer you to the edition that does.

Turn to page 17.

Your answer is that you would seek the information in Leading American Men of Science. Wrong. This source contains 17 biographies of major American scientists of the nineteenth century and earlier. You will not find information on Dr. von Karman here. Choose another answer. The question is on page 13.

**Question**

A patron enters the library and tells you he wants to get in touch with an old college classmate, Lloyd A. Baillie, who has done outstanding research in the use of radioactive tracers in petroleum processing. Baillie has only a bachelor's degree. The patron does not know the State in which Baillie currently resides. He asks if there is a yearbook or directory that contains information on relatively little-known individuals who do not have an advanced academic degree. What suggestion would you make? Select the correct answer and turn to the appropriate page.

- 19. Current Biography
- 20. American Men of Science
- 22. Guide to American Biography

If you were referred to this page by the program, you are not using it correctly.

Your answer is Current Biography. It was a good choice, but Lloyd A. Baillie is not listed in it. Current Biography is especially helpful when you want a page or two on a person who has been in the news in recent years. Current Biography contains biographical material gathered from periodical sources. If an individual is obscure, it is quite unlikely that he will have an entry here. Try a reference tool that concerns the subject field in which Baillie works. Return to the question on page 17 and make another choice.

Your answer is American Men of Science. You are correct. An entry on Lloyd A. Baillie is on page 199. (See Figure 4). The majority of biographical references list people with specific occupations. Usually, these specialized works--American Men of Science is an example--include far more people of minor accomplishment than will be found in more general sources. It should also be noted that one of the criteria for inclusion in American Men of Science is "achievement, by reason of experience and training, of a stature in scientific work at least equivalent to that associated with the doctorate degree, coupled with presently continued activity..."

Turn to page 23.

- BAILEY, DR. WILLIAM A (QUILA), JR.**, Box 100, Deer Park, Texas. ORGANIC CHEMISTRY. Macon, Ga, March 14, 10; m. 30; c. 2. A.B., Emory, 32. A.M. 33; Washington (St. Louis), 33-35; du Pont (el. Hopkins), 36-37. Ph.D. (chem), 37. Chemist, Cellulose Res. Corp., 35, 36; Shell Develop. Co., 37-44, sr. technologist, SHELL OIL CO., 44-45, mgr. res. lab., 45-49, chief technologist, 47. RES. DIR., 49-53, HOUSTON PROCESS RES. LAB., 53. AAAS; Chem. Soc. Process development; catalytic cleavage of carbon-carbon bonds; molecular weights of cellulose; pyrrole series; hydration; dehydration; chlorination; hydrochlorination; dehydrochlorination; isotope condensations; catalytic cracking; isomerization; hydrogenation; dehydrogenation; extractive crystallization.
- BAILEY, WILLIAM B (EST)**, Bedford Institute of Oceanography, Box 1003, Dartmouth, N.S. Can. OCEANOGRAPHY. Yarmouth, N.S. Aug. 30, 24; m. 45; c. 4. B.Sc. Acadia, 48. Demonstr. physics, Acadia, 47-48, Dalhousie, 48-50; asst. oceanogr., Atlantic Oceanogr. Group, Fisheries Res. Bd., Can., 50-57, assoc. oceanogr., 57-62; SR. SCI. OFFICER, BEDFORD INST. OCEANOGR., 62. Sr. oceanogr., circumnavig. N.Am. by H.M.C.S. Labrador, 54. R.C.N.R., 42-45, Lt. Comdr. Physical oceanography of Atlantic and Arctic waters; synoptic oceanography.
- BAILEY, PROF. WILLIAM F (LEMMO)**, MacMurray College, Jacksonville, Ill. CHEMISTRY. Albia, Iowa, March 13, 01; m. 29; c. 1. B.S. Monmouth Col., 24; M.S. Illinois, 28, Ph.D. (anal. chem.), 33. Instr. CHEM., Washington & Lee, 28-30, asst. prof., 29-30; asst. Illinois, 30-33; PROF. MACMURRAY COL., 33. Chem. Soc. Analysis of halides, alkali metals and cobalt; detection of chloride in presence of bromide; activity of cupric ion in solutions of ammonia.
- BAILEY, WILLIAM FREDERICK**, Electronics, see 10th ed, Phys. & Biol. Vols. Latest known address: Key Color Studios, Inc, 26 Windsor Ave, Mineola, Long Island, N.Y.
- BAILEY, DR. WILLIAM H (OTCHKES)**, see 10th ed, Phys. & Biol. Vols. deceased 64.
- BAILEY, PROF. WILLIAM J (OIAN)**, Dept. of Chemistry, University of Maryland, College Park, Md. ORGANIC CHEMISTRY. East Grand Forks, Minn., Aug. 11, 21; m. 49; c. 3. B.Chem. Minnesota, 43; Ph.D. (org. chem), Illinois, 46. Asst. org. chem., Illinois, 43, asst. War Prod. Board program, 43-46; Little (el. Mass. Inst. Tech., 46-47; asst. prof. ORG. CHEM., Wayne 47-49, assoc. prof., 49-51; PROF. MARYLAND, 51. Consult. Am. Cyanamid Co.; Goodyear Tire & Rubber Co.; Texaco, Inc; Naval Ord. Lab. Chmn. Gordon Res. Conf. Org. Reactions, 60; mem. Nat. Res. Coun. elastomers adv. com. Natick Lab. Res. award, Fatty Acid Producers, 58. AAAS; Chem. Soc. (sec. treas., div. polymer chem., 63-65); Oil Chem. Assn. Sodium polymerization; oriented polymers; cyclooctatetraene; cyclic dienes; acetylene derivatives; pyrolysis of esters and unsaturated compounds; hydrocarbons; polyphosphides; phosphorus compounds.
- BAILEY, PROF. WILLIAM ROBERT ARTHUR**, Dept. of Biological Sciences, University of Delaware, Newark, Del. MICROBIOLOGY. Barbados, B.W.I. July 3, 37; m. 44; c. 4. B.Sc. McGill, 40, M.Sc. 50, (el. 53-54, Ph.D. (med. bacter.), 55. Chemist-bacteriologist, West India Rum Refinery, B.W.I. 46-47; bacteriologist, enteric lab, Nat. Health & Welfare, Can., 47-56; assoc. prof. BIOL. SCI., DELAWARE, 56-62, PROF. 62. R.C.A.F., 41-46. AAAS; Soc. Microbiol.; Can. Soc. Microbiol. Bacteriophage; transduction and lysogeny; collicins; public health; enteric bacteriology; diagnostic microbiology.
- BAILIE, DR. J (AMES) C (LYDE)**, Standard Oil Co. of Indiana, Neodesha, Kans. ORGANIC CHEMISTRY. Pittsburg, Kans., May 17, 11; m. 39; c. 2. A.B., Illinois, 33; M.S. Kans. State Teachers Col., 34; Ph.D. (org. chem.), Iowa State Col., 38. Res. chemist, STANDARD OIL CO. (IND), 38-46, res. group leader, 46-48, asst. chief chemist, 48-52, SUPT., NEODESHA LAB., 52. Chem. Soc. Organic synthesis; organometallics; catalysts; petroleum analysis; catalysts for petroleum refining; organic sulfur insecticides; organolead chemistry.
- BAILIN, DR. LIONEL J.**, 3 Mulberry Court, Belmont, Calif. INORGANIC CHEMISTRY. New York, N.Y., Oct. 28, 24; m. 58; c. 3. B.A. N.Y. Univ., 48; M.S. Polytech. Inst. Brooklyn, 52; teaching fel., Tulane, 54-55, U.S. Army Ord. Dept. res. grant, 55-57, Ph.D. (inorg. chem.), 58. Develop. chemist, plaster of Paris, Davis & Geck Co., Am. Cyanamid Co., 51-52; phys. chemist, chem. warfare, Army Chem. Center, Md., 52-54; chemist, pigment tech., E.I. du Pont de Nemours & Co., 57-62; RES. SCIENTIST, INORG. COATINGS FOR SPACE APPLN., MAT. SCI. LAB., LOCKHEED MISSILES & SPACE CO., 62. Chem. C., 52-54. Chem. Soc.; fel. Inst. Chem.; Brit. Chem. Soc.; Soc. Rheol.; Inst. Physicists. Inorganic and modified inorganic coatings stable to ultraviolet and nuclear radiation under space and terrestrial environments; new titanium dioxide pigments for pulp, paper and paint industry.
- BAILIN, DR. L (OUB) L (EONARD)**, 3422 S. Carmona Ave., Los Angeles 16, Calif. PHYSICS, MATHEMATICAL PHYSICS. Chicago, Ill., May 26, 23; m. 46; c. 3. Calif. State scholar, California, Los Angeles, 43, B.A., 43, M.A., 46, Ph.D. (physics), 49. Asst. physics, California, Los Angeles, 43-44; physicist, Naval Ord. Lab., 44-45; physics & math, California, Los Angeles, 45-48; mathematician, Bur. Standards, 48-49; res. physicist, Hughes Aircraft Co., 49-57; assoc. prof. elec. eng., Southern California, 53-56, prof., 56-60; MGR. ANTENNA DEPT., HUGHES AIRCRAFT CO., 60. Consult., 56-59. Adj. prof., Southern California, 61. Consult. Stratron TV Corp., 59. U.S.N.R., 44-45. Phys. Soc.; sr. mem. Inst. Elec. & Electronics Eng. Antennas, propagation and electronics.
- BAILLIE, DR. (ANDREW) D (OLLAR)**, 917 Rideau Dr. Calgary, Alta. Can. GEOLOGY, STRATIGRAPHY. Dollar, Scotland, Nov. 20, 12; m. 46. B.Sc., Manitoba, 49; M.Sc., 50; Ph.D. (geol.), Northwestern, 53. Geologist, Mines Br., Man., 50-53; Can. Oil Co., 53-57; from regional geologist to RES. GEOLOGIST, BRIT. AM. OIL CO., 57. Spencer Gold Medal, Manitoba, 53;
- geologist medal award, Alta. Assn. Petrol., 55. R.C.A.F., 40-45, Lt. Am. Petrol. Geol.; Geol. Soc.; fel. Can. Geol. Soc. Stratigraphy, sedimentation and allied fields.
- BAILLIE, DONALD (HESLEY)**, 20 Wychwood Park, Toronto 4, Ont. Can. ACTUARIAL SCIENCE. Toronto, Can., Apr. 3, 18; m. 57; c. 2. M.A., Toronto, 38; univ. fel. Columbia, 38-39. Lectr., MATH., TORONTO, 38-41, asst. prof., 45-58, ASSOC. PROF., 58. R.C.N., 41-45, Lt. Soc. Actuaries. (grt. 47). Actuarial mathematics.
- BAILLIE, LLOYD A.**, Sinclair Research Labs., Inc., 400 E. Sibley Blvd., Harvey, Ill. CHEMISTRY. Pierpont, S. Dak., June 20, 30; m. 54; c. 1. B.S., S. Dak. State Col., 52. Chemist, Argonne Cancer Res. Hosp., 53-54; RES. CHEMIST, SINCLAIR RES. LABS., INC., 56. U.S.A.F., 54-58, 1st Lt. Application of radioactive tracers to problems in petroleum processing.
- BAILLIE, PROF. WILLIAM (HAROLD) T (REVORROW)**, 182 Hubbard Ave., Toronto 12, Ont. Can. BIOLOGY. Toronto, Ont., Aug. 11, 58; m. 19; c. 3. B.A., Toronto, 11, fellow, 11-12, M.A., 12, M.B., 15, M.D., 25. Demonstr. & asst. biol., TORONTO, 15-15, lectr. comp. anat., 15-16, MAMMALIA, anat., 19-24, asst. prof., 24-28, assoc. prof., 28-45, prof., 45-63, EMER. PROF., 63. Licentiate, Col. Phys. & Surg., Ontario. R.C.A.M.C., 18-19, Capt. Royal Can. Inst. Comparative anatomy; Annelida polychaeta; mammalian anomalies; blood vascular system in elasmobranchs; peritoneal reactions in Mammalia; life histories in Cladocera and viability of the sexes; abdominal musculature in vertebrates; vertebrate embryology; circulation of blood in Amphibia; comparative anatomy and physiology of Rodentia serum reactions.
- BAILLIF, DR. RALPH (NORMAN)**, Tulane University, School of Medicine, New Orleans 18, La. CYTOLOGY. Minneapolis, Minn., May 5, 09; m. 39; c. 3. A.B., St. Olaf Col., 30; A.M., Minnesota, 33, Ph.D. (med.), 38. Teaching asst. scol., Minnesota, 31-35, teaching fel. ANAT., 36-37; Instr. sch. med., La. State, 37-42, asst. prof., 43-47; SCH. MED., TULANE, 47-52, assoc. prof., 52-58, PROF., 58. Assn. Cancer Res.; Reticuloendothelial Soc.; Endocrine Soc.; An. Anat. Cytology of secretion; reticuloendothelial activity; hematology; relation of R.E. system to cancer growth.
- BAILLY BATSON, DR. MARGARET**, Psychiat., Pediat., see BATSON, DR. MARGARET BAILLY.
- BAILY, DR. JOSHUA L (ONGSTRETH), JR.**, Box 1891, La Jolla, Calif. BIOLOGY. Philadelphia, Pa., Jan. 29, 89; m. 17. A.B. Haverford Col., 12, A.M., 13; B. Mus., Pennsylvania, 15; fel. Hopkins, 26-28, Sc.D. (biomet.), 36. With Am. Red Cross, 19-21; Union Title Ins. Co., 21-26; with res. inst., San Diego Zool. Soc., 28-34; RES. ASSOC., SAN DIEGO SOC. NAT. HIST., 36. Mem. Am. Friends Serv. Cmn., 18-19.
- BAILY, DR. NORMAN (ARTHUR)**, Space Sciences Dept., Hughes Research Labs., Malibu, Calif. PHYSICS. New York, N.Y., July 2, 15; m. 40; c. 2. B.S., St. John's (N.Y.), 41; M.A., N.Y. Univ., 43; Ph.D., Columbia, 52. Instr. math., physics and elec. eng., Radio Corp. Am. Insts., New York, 42-43; asst. physics, Columbia, 46-48, res. sci. radiol. dept., 48-52; oper. anal. hys. Strategic Air Command, 52-54; chief physicist, dept. therapeut. radiol., Roswell Park Mem. Inst., 54-59; sr. res. physicist, Hughes Nuclear Electronics Lab., 59-61, MGR. SPACE SCI. DEPT., HUGHES RES. LABS., 61. Cit. prof. radiol. sch. med., California, Los Angeles, 61. Mem. sci. adv. bd., U.S. Air Force. AAAS; assoc. fel. Col. Radiol.; Biophys. Soc.; Research Soc. N.Y. Acad.; Phys. Soc. Am. Physicists in Med.; Inst. Elec. & Electronics Eng.; Soc. Test. Meas. Radiat. Res. Soc. Measurement and research related to radioactive isotopes, x-rays and radium; applications of atomic energy to biology and medicine; radiation effects in solids; space radiation dosimetry; radiation hazards to man in space.
- BAILY, PROF. WALTER L (EWE), JR.**, Dept. of Mathematics, University of Chicago, Chicago, Ill. MATHEMATICS. Waynesburg, Pa., July 5, 30. B.S. Mass. Inst. Tech., 52; M.A., Princeton, 53, Nat. Sci. Found. fel., & Ph.D. (math), 55. Instr. MATH., Princeton, 55-56; Mass. Inst. Tech., 56-57; asst. prof., CHICAGO, 57-61, assoc. prof., 61-63, PROF., 63. Mathematician, Bell Tel. Labs., 57-58. Math. Soc. Several complex variables; modular functions of several variables.
- BAILYN, DR. MARTIN H.**, Dept. of Physics, Northwestern University, Evanston, Ill. PHYSICS. Conn., June 24, 28. B.A., Williams Col., 48; Ph.D., Harvard, 56. From asst. prof. to ASSOC. PROF. PHYSICS, NORTHWESTERN, 56. Asst. res. officer, Nat. Res. Council Can., 58-59. Magnellium in metals.
- BAIN, ALASTAIR STEWART**, Atomic Energy of Canada Ltd., Chalk River, Ont. Can. METALLURGY. Penticton, B.C., June 16, 27; m. 62; c. 2. B.A.Sc., British Columbia, 60. RES. OFFICER, ATOMIC ENERGY CAN. LTD., 51. Soc. Metals. Irradiation behaviour of nuclear fuels; remote control handling of irradiated materials; pyrometallurgical reprocessing of irradiated uranium and fabrication of plutonium-aluminum alloys.
- BAIN, CLARENCE J.**, Chem., see 10th ed, Phys. & Biol. Vols.
- BAIN, DR. DOUGLAS COGBURN**, Dept. of Plant Pathology, Mississippi State College, State College, Miss. PLANT PATHOLOGY. Knoxville, Tenn., Dec. 23, 08; m. 38; c. 2. B.A., Tennessee, 36; M.S., Agr. & Mech. Col. Texas, 37; Ph.D. (plant path.), La. State, 43. Acting instr. bot., Agr. & Mech. Col. Texas, 37-40; agent, sugar plant div., U.S. Dept. Agr., La., 42-44, pathologist, plant disease prevention, Miss. & La., 44-45; res. assoc., La. State, 45-48; PATHOLOGIST, State Plant Ed., Miss., 46; Truck Crops Exp. Sta., 46-54, DEPT. PLANT PATH., 54. AAAS; Phytopath. Soc. Seed borne diseases of cotton; diseases of sorghum and sugar cane; antibiotic in actinomycetes; diseases of vegetables and forage crops.
- BAIN, DR. EDGAR C (OLLINS)**, 434 Maple Lane, Edgeworth, Sewickley, Pa. PHYSICS, METALLURGY. LaRue, Ohio, Sept. 14, 91. B.S., Ohio Stat., 12,

Your answer is Guide to American Biography. Wrong. This reference book is fairly comprehensive bibliographical guide to source materials on major American historical personalities. Lloyd A. Baillie is not listed here. Return to the question on page 17 and select a reference tool that specializes in the subject field in which Baillie works.



### Question

You are asked by a library patron to help him find information on a Japanese scientist, Dr. Kwang Bang Woo, currently engaged in research at one of the universities in the U.S. How would you respond to this request? Choose what you think is the best answer and turn to the page in this lesson that contains that answer.

24. Refer to Who's Who in Japan
25. Suggest that he contact the science attaché at the Japanese embassy.
26. Look in American Men of Science (AMS)

You are guessing. Your answer is that you would refer to Who's Who in Japan. There is no such directory. The equivalent is entitled Japan Biographical Encyclopedia and Who's Who. However, Dr. Woo is not listed here. Return to the question on page 23 and pick another answer.

Your answer is that you would contact the science attaché at the Japanese embassy. You are not incorrect and might even secure some very helpful information. However, unless your library is in Washington, D.C., where the embassy is located, using this source could be expensive (if a long-distance telephone call is made) or time consuming (if inquiry is made through correspondence). Turn back to the question on page 23 and choose the correct answer.

Your answer is that you would look in American Men of Science. You are correct. Look at the entry from AMS in Figure 5 (p. 5956). Note that although there is a complete biographical citation for Dr. Woo there is no indication that he is a naturalized U. S. citizen. Then turn to the next question on page 28.



**Question**

You are asked by a patron to help him find out where Ruth Bien of Avon Products received her doctoral degree in cosmetic chemistry. Although Ruth Bien is listed in AMS (see Figure 6), there is no reference to a doctoral degree in the citation. How can you be of further help to the patron? Choose the best answer and turn to the page indicated.

30. Refer to the Addendum in AMS
31. Refer to AMS's Supplements
32. Suggest that the next (12th) edition of AMS will probably have the information and that you will contact the patron when it becomes available.



Your answer is that you would refer to AMS's Addendum. Correct. The Addendum to AMS often contains information that became available too late to be included in the main citation. In this case, however, Ruth Bien is not listed in the Addendum. So, there are two possible conclusions: (1) She does not have a doctoral degree, or (2) the information about her doctoral degree became available too late to be included in the 11th edition of AMS.

Turn to page 33.



Your answer is that you would refer to AMS's Supplements. You are wrong. The Supplements are designed to give significant new data on scientists whose biographies appear in the base volumes. This information covers changes in position and address, deceased notices, and a few other items of importance. However, the Supplements are not meant to take the place of full revisions. Therefore, among the kinds of information being held for the 12th edition (to be published beginning in 1970) are corrections in dates and refinements in educational data. Return to page 28 and choose the correct answer.

Your answer is that you would suggest that the next (12th) edition of AMS will probably have the information and that you will contact the patron when it becomes available. This might seem to be a very sensible thing to do. But in view of the fact that publication of the 12th edition is not scheduled to begin until 1970, you must find an approach to the problem that will be more helpful to the patron. Return to the question on page 28 and choose a better answer.

You have now completed the programmed instruction. On the following pages, you will find a set of questions for review purposes.

## Questions

1. American Men of Science is published annually.  
(A) true                      (B) false
2. Biographies of scientists whose data were received too late for inclusion in the base volume of AMS are made available through the Supplementary Service.  
(A) true                      (B) false
3. AMS is published in three sections.  
(A) true                      (B) false
4. In order to be included in AMS, an individual must be listed in Who's Who in Science.  
(A) true                      (B) false
5. Citations on individuals may be dropped from AMS if they are deceased.  
(A) true                      (B) false
6. Only U.S. citizens are included in AMS.  
(A) true                      (B) false

Turn to the correct answers on page 35.

1. (B) false. The correct answer is that AMS is published at five-year intervals.
2. (A) true.
3. (B) false. The correct answer is that AMS is published in two sections: Physical and Biological Sciences; Social and Behavioral Sciences.
4. (B) false. There is no directory entitled Who's Who in Science. Criteria for inclusion in American Men of Science are on page 7 of this lesson.
5. (A) true. Even though the current edition of AMS does not have a complete biographical citation on an individual who is dead, it will refer to the edition that does.
6. (B) false. Many scientists are listed who are not U.S. citizens but who are currently engaged in research in this country and who otherwise meet the criteria for inclusion.