

GENERAL SCIENCE

President Meets Winners

It is imperative to keep an open mind, and for political science and physical science to advance and grow together for mutual understanding, President Johnson tells 40 winners.

By PRESIDENT LYNDON B. JOHNSON

Remarks to National Science Talent Search Winners in the Cabinet Room of the White House, March 1

See Front Cover

► I AM VERY PROUD to welcome you to the White House this morning. I hope I spend some time with you. My daughter Luci is very interested in science—not political science either, although she adapts herself where necessary to it. She has just been admitted to Georgetown to enter nursing school there, and she is very attracted by that possibility. When I told her this morning that I was going to meet with you today, she congratulated me. I have forgotten just how she put it but she said something like this: "Daddy, there is just nothing more 'in' than brains." Now, do you all understand what she is talking about?

So we do here in the White House have the highest regard for brains and talent, and especially in science. Dr. Seaborg, one of the most noted scientists in the world, is head of our Atomic Energy Commission. Dr. Hornig, one of the great men in science, is my Science Advisor and one of the most stimulating persons that I have come in contact with. (To left of President on cover)

Changes Since World War I

Back in World War I, a representative of the American Chemical Society called on the Secretary of War and offered the services of the nation's chemists. The Secretary thanked him and asked him to return the next day. When he did, the Secretary of War expressed appreciation for the offer but that it was unnecessary. He had looked into the matter and he had found that the War Department already had a scientist.

So you can see what has happened from World War I to the present day. I do want you to know though that the White House today already has a chemist. Dr. Hornig is one of the most distinguished. But both he and many others in your Government are very anxious to produce all the scientists that we possibly can in this country.

The first President to live in the White House was John Adams. His wife used to hang the family washing in the East Room. John Adams once made this observation:

"While all other sciences have advanced, that of Government is at a standstill: little better understood, little better practiced now, than 3,000 to 4,000 years ago."

I mention this because I deeply believe it is imperative for political science and physical science to advance together, and to grow together and to have mutual understanding of each other.

The politician who closes his mind to science is a disservice to his people and to his time. The same is true of the scientist who closes his mind to politics.

Some of the most interesting meetings I had during this last campaign during this last summer were with some of the most distinguished scientists of this age. So the end of both politics and science must be the same—to serve humanity.

In your careers as scientists, I think you will share in shaping and reshaping our world today into a new world tomorrow. Before you are as old as I am, we shall observe in 1992 the 500th anniversary of the discovery of the Americas. The discoveries in which you will participate however will extend the horizons and frontiers of man much more than the discovery that Columbus made, because by 1992 the knowledge of man will have multiplied more than three fold. The test and trial for your generation will be not quantity, but it will be the quality of the wisdom with which your knowledge is used.

By 1992, distances on earth will have lost all meaning. Man will be moving purposefully among the planets; man will be farm-

ing the beds of the sea. He will be inhabiting the reaches of the Arctic and Antarctic. He will be tilling the deserts and he will be taming the jungles.

So think about what an exciting age that you are living in and is just around the corner. Think about the promise that is vast and that is bright. Think about your participation in it, and realize that the prospect for you is neither soft nor easy. Your generation will be tried and will be tested more than any other generation to preserve on earth those qualities which make human life worth living.

Broad Understanding Important

We must defend freedom not only against enemies without, but against enemies within. An understanding of science alone will be no more adequate training for your tests than would be a knowledge of politics alone.

Some of the great Presidents who have lived in this House have found that misunderstanding in this country and problems that arose in this country, and leadership in this country, caused them really more troubles than leadership in the world. That was true of Woodrow Wilson, that was true of Franklin D. Roosevelt, that was true of Harry S. Truman. That was even true of Dwight D. Eisenhower, although I did all I could to minimize any of the great differences.

Some times though we do find that our
(Continued on p. 170)



A CLOSER LOOK—Dr. J. W. Coltman, director of Mathematics and Radiation Research and Development for Westinghouse Research Laboratories, Pittsburgh, talks with STS finalists (left to right) Richard Gott, Larry Howard, Eric Anderson and Tom Knight after his talk "New Angles on Light" given at the dinner honoring finalists' Congressmen. (See SNL 87:153, March 6, 1965)

GENERAL SCIENCE

Remarks on Talent Search

By DR. D. C. BURNHAM

President
Westinghouse Electric Corporation

► IT IS A privilege to be here tonight and to join with you in this final event of the 24th Science Talent Search.

Year by year, since 1942, this gathering in Washington has honored 40 of the most gifted young people to graduate from the secondary schools of our nation. Tonight that number reaches 960.

The Science Talent Search is an enterprise which Westinghouse supports with dedication to its purpose, and with pride in its results. It reflects the foresight of those who founded it, and testifies to the wisdom and skill with which it has been conducted for nearly a quarter century.

We are grateful to you, Dr. Davis, and to your staff at SCIENCE SERVICE, for your dedication to this pioneering idea, which has served so well the cause of science.

I congratulate you 40 winners for being among those who have preceded you here since 1942. If my arithmetic is correct, the typical winner of the *first* Science Talent Search is now age 41. If that seems ancient to you, I can assure that far more "primitive" was the kind of scientific world they represented. To illustrate, just a couple of years prior to the first Science Talent Search, Westinghouse placed underground at the New York World's Fair a Time Capsule, designed to preserve for 5,000 years a record of man's accomplishments up to that time. With the advent of the current World's Fair, and in view of the vast changes which had occurred in just 25 years, we felt that a new capsule should be prepared to bring the record up to date. To guide us, I sought the help of a distinguished gentleman who shares this platform tonight, Dr. Leonard Carmichael. He assembled a committee of 13 prominent Americans, each an outstanding authority, to select those events which best documented man's unprecedented progress in the past quarter of a century. The selections covered every important area of human endeavor, ranging through arts and entertainment, science, world affairs, the humanities—13 categories in all. The contributors included five Nobelists, one of whom, I am proud to say, was Dr. Glenn Seaborg, who also shares this platform.

Dr. Carmichael and his associates specified more than 50,000 pages and nominated thousands of documents and objects to delineate such profound changes in human history as World War II, the rise of new nations and the population explosion.

But of particular significance, in the area of science, it required as much information to record 25 years of progress as it did to record all that had happened in all of history up to the time when the original capsule was prepared. You yourselves can think of many of the historic scientific events of the past quarter of a century—atomic energy, space travel, electronic com-

puters, jet aircraft, man-made elements, lasers, transistors, particle accelerators, heart surgery, polio vaccine, pictures of the moon.

These were things unknown, or dimly seen, to the 40 Science Talent winners at the first Awards dinner. But you 40 tonight have them as part of your scientific heritage. The world of science you now enter has been largely reconstructed in the relatively short span of your young lives. In your professional lifetime, it will be reconstructed again, and far more profoundly.

It is our wish for each of you that you have a part in that new reconstruction, and that you serve your chosen field of science with competence, with integrity and with personal satisfaction.

• Science News Letter, 87:164 March 13, 1965

By DR. LEONARD CARMICHAEL

President
Science Service
Vice President for Research and Development
National Geographic Society

► TODAY, IN AMERICA, for various reasons, most of us in this room would agree science has better general recognition than ever before in our history. The public now understands that the cure of disease, public health, some aspects of public welfare, agriculture, many new industrial advances and, above all, national defense and the prestige of the conquest of space depend on pure science as basis to applied science and all aspects of engineering.

This broad and new recognition of the role of science has very properly focused attention upon scientific engineering and medical education in the United States.

When the Science Talent Search, as a cooperation between SCIENCE SERVICE and Westinghouse, began 24 years ago, it was literally an unheard of pioneering venture. It was the first general program organized to select young men and women of outstanding promise who were about to graduate from high schools in America and help them secure appropriate higher education. Today, we certainly must applaud the wisdom of Dr. Watson Davis and the Westinghouse Electric Corporation for their foresight almost a quarter of a century ago in starting this great program in a then most inhospitable climate.

The 40 being honored here at this great dinner tonight are the latest group to have been selected for this honor. Studies have been made of former winners in this program and it is known that the selection used in the Science Talent Search really works. Past winners of this Westinghouse Talent Search have now had time to demonstrate that many of them are now indeed making outstanding contributions to American science and engineering.

But, as we see the new importance of science in our national life, we are not being complacent. Each year Westinghouse and SCIENCE SERVICE strive to make this fine program better and better.

(Continued on p. 170)

Questions

AERONAUTICS—What effect does landing sometimes have on the rotor blades of helicopters? p. 162

BIOCHEMISTRY—Under what conditions was earliest life simulated? p. 168

CHEMISTRY—How did Swedish scientists synthesize the newly found mineral, sinoite? p. 174

ENTOMOLOGY—How is a new pesticide that kills heel and horn flies administered to cows? p. 168

GENERAL SCIENCE—What did Luci Johnson tell her father about brains? p. 163

PUBLIC HEALTH—What process removes much strontium 90 and 89 from milk? p. 168

SCIENCE NEWS LETTER

VOL. 87 MARCH 13, 1965 NO. 11

Edited by WATSON DAVIS

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington, D. C. 20036. North 7-2255. Cable Address: SCIENSERV.

Subscription rates: 1 yr. \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; ten or more copies in one package to one address, 7 1/2 cents per copy per week; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage. Change of address: Three weeks notice is required. Please state exactly how magazine is addressed. Include zip code.

Copyright © 1965 by Science Service, Inc. Republication of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicated services issued by Science Service. Science Service also produces and distributes THINGS of science (monthly), produces and publishes books, and conducts the National Science Youth Program.

Printed in U.S.A. Second class postage paid at Washington, D. C. Established in mimeograph form March 13, 1922. Title registered as trademark, U. S. and Canadian Patent offices. Indexed in Reader's Guide to Periodical Literature, Abridged Guide, and the Engineering Index. Member of Audit Bureau of Circulation.



SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: Athelstan F. Spilhaus, University of Minnesota; Wallace R. Brode,*** Washington, D. C.; Bowen C. Dees, National Science Foundation. Nominated by the National Academy of Sciences: Henry Allen Moe, The Clark Foundation; Harlow Shapley, Harvard College Observatory; Detlev W. Bronk, Rockefeller Institute. Nominated by National Research Council: Leonard Carmichael,* National Geographic Society; Benjamin H. Willier, Johns Hopkins University; Eric A. Walker, Pennsylvania State University. Nominated by Journalistic Profession: O. W. Riegel, Washington and Lee University; Gordon B. Fister, Allentown (Pa.) Call-Chronicle; Ralph B. Curry, Flint Journal. Nominated by the Scripps Estate: Edward J. Meeman, Memphis Press-Scimitar; Ludwell Denny, Scripps-Howard Newspapers; Edward W. Scripps II,** Edward W. Scripps Trust. *President; **Vice-President; ***Treasurer.

Staff—Director: Watson Davis, Assistant Director: Dorothy Schriver. Writers: Charles A. Betts, Jonathan Eberhart, Ann Ewing, Edith Lederer, Faye Marley, William McCann, Barbara Tufty, Judith Viorst, Ruby Yoshioka. Science Youth Division: Joseph H. Kraus, Lloyd Ulmer. Photography: Fremont Davis. Production: Marcia Nelson. Syndicate Sales: Forrest L. Snakenberg, Librarian: Margit Friedrich. Interlingua Division in New York: Alexander Gode, 80 E. 11th St., Gramercy 3-5410. Advertising Manager: Fred A. Moulton, Metropolitan 8-2562, Washington, D. C.



LIGHT ON FOOD—STsers Nancy Fering, Patricia Lynn Ader, Joe Harabin and James Truitt observe the effect of ultraviolet light on food particles during a visit to the Armed Forces Institute of Pathology conducted by Dr. Frank B. Johnson, chief of the histochemical branch.

President, Winners

(Continued from p. 163)

own people must endure tests and must be tried and must defend freedom, not only against enemies without, but against folks who don't understand within.

So an understanding of science alone will be no more adequate training for your tests that would be this politics that I talked about. If the future demands depth in your knowledge, it will require breadth in your understanding.

I have not the slightest doubt that some of the wars which we have engaged in have been brought about because of a lack of understanding, and not just other nations but among ourselves, among our own people, and the fact that we conveyed the impressions to others which they accepted and acted upon which were not really representative of the views of our country.

The Kaiser may not have thought that sinking the Lusitania would bring us into war immediately. After Munich and Chamberlain's experience and some of our performance in this country, Hitler undoubtedly thought that he could move as he did without interference. The Japanese had questions about what we would do at Pearl Harbor.

So that is why today we are concerning ourselves with the education of all of our people and hoping that they will understand. I watch with the utmost eagerness every indication of understanding of our people or lack of understanding, as measured by various yardsticks.

I believe that every American boy and girl must be able to receive all the education they can absorb. I think that is important—every boy and girl in this country receives all that they can absorb, whatever their birth, wherever they live, whatever

the income of their parents, regardless of what side of the tracks they live on.

Tomorrow we hope to indelibly impress upon the minds of everybody in this country by a vote from the House Committee that education is the first priority of our country and is the first priority of your Capital and is the first priority of your President.

Likewise, peace is our first pursuit. I pray every night and a good many times during the day that when you have reached that year of 1992, you will be able to look back over your lives and have no recollections of war—not remember two of them as I do.

But that the only memories you will have will be of peace on earth, good will toward men. And that must be our purpose, that must be our objective, and that must be the pledge of my generation and yours. I think as a result of your experiences and your dedication and your diligence and what is going to come out of efforts that you make, that that just may be possible; that when you sit in your rocking chair talking about what used to be in 1992, that you can say, "Well, I was at the White House and I talked to the President. He remembered a good many combats, a few offensives that he engaged in, and he remembered two wars. But I have lived my life and I haven't known any."

If I could have my wish this morning, that would be my wish. I think that you young people perhaps hold that within your grasp.

I remember in World War II they told us that these beardless youngsters couldn't equal the task of the 50,000 planes a year that President Roosevelt had produced. But the scientists and the workmen produced the planes and the beardless youngsters learned how to fly them and our peace was preserved. What we pray

today is that we won't have to fly those planes. We'll have them, we'll be prepared. We pray we won't have to call those youngsters out of the high schools and the colleges, but rather than yield our liberty we will.

Finally, that in the end of your career, in the twilight, that you can sit there and reminisce and say: "I knew only peace in my time."

• Science News Letter, 87:163 March 13, 1965

Dr. Carmichael

(Continued from p. 164)

I do wish, at this time, on behalf of my fellow Trustees of SCIENCE SERVICE, to express our deep gratitude to the authorities of Westinghouse past and present for their wisdom and great foresight in making this outstanding program possible and to the volunteer judges who have done so much to make this talent search successful.

SCIENCE SERVICE itself has contributed much during the almost half a century of its activity to make true scientific information broadly available to the public and to encourage appreciation of the importance of science and of the scientific method in what may be called the general thought stream of the American public.

This work of SCIENCE SERVICE has been done through newspapers, television, radio and the provision of great editions of inexpensive books. SCIENCE SERVICE, by working with Westinghouse, the National Science Foundation, and other organizations and individuals, has demonstrated that it has a special function as an endowed nonprofit organization in the active world of modern American science. It plays a significant role in what is now certainly one of the most important areas of American life.

SCIENCE SERVICE, again I emphasize as a nonprofit endowed organization, publishes Science News Letter, a weekly summary of current science. It conducts a service called "Things of Science" by means of which monthly experimental kits are provided for schools and individuals all over the world.

SCIENCE SERVICE as its most famous function also maintains a news report by wire to send out daily new highlights of science. It also provides other science news services for papers all over America.

But, tonight, we all must remember that the Science Talent Search is an especially important part of the great Youth Program that SCIENCE SERVICE conducts. SCIENCE SERVICE has stimulated more than 20,000 science clubs in the high schools of the world. The immense ferment of this youth program in science and its stimulation of science education involving as it does now about one million young science students and their dedicated teachers had its beginning in the farsighted pioneering of the Science Talent Search, which Westinghouse has made possible.

This is the 24th anniversary of the Science Talent Search and the 44th anniversary of SCIENCE SERVICE itself. I cannot resist saying that the distinction of SCIENCE SERVICE is very largely due to the idealism, the wisdom and the plain old-fashioned hard work of one man, Dr. Watson Davis.

Dr. Davis is that rare man who is a native of Washington, D.C. He is both a pure scientist and an engineer. At the onset of his career after graduating in engineering he was on the staff of the National Bureau of Standards and also worked for various newspapers and publications.

But since the very beginning of SCIENCE SERVICE 44 years ago, he has devoted himself to developing this influential organization. Some of you will like to look up his biography in "Who's Who" because you will learn there of the honors that have come to him not only in America but from all over the globe.

Tonight, therefore, I do want to say to you that the greatness of SCIENCE SERVICE and its usefulness to America are peculiarly an image of this one modest gentleman. So, I ask all of you here to join with me in thanking him and his associates and especially Westinghouse for the amazing farsightedness in making this now world famous Science Talent Search the original proven constructive program that it has demonstrated itself to be during each of the last 24 years.

A great industry, Westinghouse, and an endowed nonprofit organization, SCIENCE SERVICE, in productive partnership have certainly demonstrated what proven initiative can do in helping to advance the total welfare of science and all that science stands for in modern America.

• Science News Letter, 87:164 March 13, 1965

Dr. Hornig

(Continued from p. 165)

"We look to it—

"For the technology and industry which will supply us with new products and new jobs to meet our needs.

"For the health programs which will eventually conquer disease and disability.

"For the purposeful and useful exploration of the seas around us and the space above us.

"And, most especially for the guidance that will permit us to proceed with greater security and greater confidence toward our goals of peace and justice in a free world.

"As no other force has contributed more materially to our effective pursuit of happiness in America, so it is true that no other force is now requiring of us the more careful examination and reexamination of the workings, values and aspirations of our society.

Science Includes Change

Science is changing many of the very premises on which our greatly successful American society has been built over the past two centuries. If we are to strive toward our society's continuing success and further greatness, we must not merely commit ourselves to its support—we must involve ourselves in seeking to understand the profound changes which it promises.

"For all that has been wrought in this land, we must understand that these are the infant years of a new age—not the aging days of an old era."

This morning the President reminded you all of the decisive part which science plays in our national effort, pointed out the necessity for a development of political

science to parallel that of the natural and physical sciences, so that we may all live and work in a world at peace.

I strongly believe that to ensure such a development is it essential for every youngster in our schools, for every young man and woman in our colleges and universities, to receive sound and diversified training in the sciences as well as in the liberal arts. The methods and achievements of the exact sciences have become so much a part of mankind's daily life—in industry, engineering, medicine, transportation, agriculture, in short, in dozens of ways that weave in and out of the fabric of living—that no one can any longer afford ignorance of them.

The sciences have taken their place as an integral part of a liberal, humanistic culture, as a large and important field of human endeavor. We must make certain that they also occupy a corresponding position in our educational scheme.

Science has become so much a part of our lives and our future, it is intertwined in so many of our policies and decisions, it is so big a part of our budget, that it can no longer be regarded as an isolated activity which is the province of scientists alone, no matter how dedicated.

The development of science and the role of science concerns the President, the Congress and all of our people. It is right, indeed it is important, that they all participate in the fundamental decisions regarding science.

But, by the same token, it is up to scientists, and to you students interested in science, to participate in the whole of the democratic process. It is up to you young people, beginning in your schools, to help bring an understanding of science to all of our citizens.

Scientific Responsibility

I am convinced that the approach of scientists, the impartial observation and evaluation of facts and their relationships, coupled to an imaginative, thoughtful synthesis into working concepts, is one which can and must be applied to all human fields of endeavor.

A necessary consequence of this conviction is that we, as scientists, have a duty and an obligation to contribute not only our specific skills but also the whole weight of our scientifically trained minds and abilities to the solution of the varied problems which confront our nation and our world.

What distinguishes science from other creative activity is that it has proved possible not only to invent ideas which bring beauty, elegance and order to the world of nature, but to build them one on another.

It has developed a mode of communication which involves many minds in a common endeavor, united in a common inspiration and seeking a kind of truth which, being testable, can withstand differences in ideology, race and nationality.

It is in this spirit of a common cause and a common goal that I welcome these young people tonight as they prepare to join an ever growing company of scientists and scholars, and we wish them God-speed on their travels into the bright future that is theirs to build.

• Science News Letter, 87:165 March 13, 1965

SCIENCE BARGAINS

Order by Stock No.—Send Check or M.O. Shipment same day received—Satisfaction or money back.

NEW! SCIENCE FAIR PROJECT KITS

Edmund Kits are carefully planned to give any boy or girl the fun and excitement of discovering science facts. Such carefully planned projects can lead the student to awards or scholarships. Adults too will find them an excellent introduction to the various fields of science. Write for Free Bulletin 47-Q "Your Science Project" covering all phases of Science Fair projects.



MOLECULE KIT

This low-priced kit can be used to make many molecular and crystal models. Consists of 50 sponge-rubber balls, 1 inch in diameter and 50 wooden sticks, 6" x 1/4" that can be cut to any desired length. Balls may be painted, after assembly, to standard molecular colors. With this one kit, molecules with up to 50 atoms can be made. Several kits can be used to make up more complex models. Stock No. 30,413-Q \$2.50 Postpaid



BUILD A SOLAR ENERGY FURNACE

A fascinating new field. Build your own Solar Furnace for experimentation—many practical uses. Easy! Inexpensive! Use scrapwood! We furnish instructions. This sun powered furnace will generate terrific heat—2000° to 3000°. Fuses enamel to metal. Sets paper aflame in seconds. Use our Fresnel Lens 11" Sq. f.1. 19". Stock No. 70,533-Q \$6.00 Postpaid



SCIENCE TREASURE CHESTS

For Boys—Girls—Adults! Science Treasure Chest—Extra-powerful magnets, polarizing filters, compass, one-way-mirror film, prism diffractors, gratings and lots of other items for hundreds of thrilling experiments, plus a Ten-Lens Kit for making telescopes, microscopes, etc. Full instructions included. Stock No. 70,342-Q \$5.00 Postpaid. Science Treasure Chest Deluxe—Everything in Chest above plus exciting additional items for more advanced experiments including crystal-growing kit, electric motor, molecular models sets, first-surface mirrors, and lots more. Stock No. 70,343-Q \$10.00 Postpaid



WOODEN SOLID PUZZLES

12 Different puzzles that will stimulate your ability to think and reason. Here is a fascinating assortment of wood puzzles that will provide hours of pleasure. Twelve different puzzles, animals and geometric forms to take apart and reassemble, give a chance for all the family, young and old, to test skill, patience and, best of all, to stimulate ability to think and reason while having lots of fun. Order yours now. Stock No. 70,205-Q \$3.00 Postpaid



CRYSTAL-GROWING KIT

Do a crystallography project illustrated with large beautiful crystals you grow yourself. Kit includes the book "Crystals and Crystal Growing" and a generous supply of the chemicals you need to grow large display crystals of potassium aluminum sulfate (clear), potassium sulfate (purple), potassium sodium tartrate (clear), nickel sulfate hexahydrate (blue-green) or heptahydrate (green), potassium ferricyanide (red), and copper acetate (blue-green). Stock No. 70,336-Q \$9.50 Postpaid



MINIATURE WATER PUMP

Wonderful for experiments miniature waterfalls, fountains, HO gage railroad backdrops, etc. Tiny (2 1/4" x 1 3/4") electric motor and pump. Ideal for hobbyists, labs, schools. Pumps continuous flow of water at rate of one pint per minute at a 12" head. With 2 D Batteries in series will pump to 24" high. Runs 48 hours on battery. Works in either direction. Self-priming. Stock No. 50,345-Q \$2.25 Postpaid



Terrific Buy! American Made!

OPAQUE PROJECTOR

Projects illustration up to 3" x 3 1/2" and enlarges them to 35" x 30" if screen is 6 1/2 ft. from projector; larger pictures if screen is further away. No film or negatives needed. Projects charts, diagrams, pictures, photos, lettering in full color or black-and-white. Operates on 115 volts A.C. current . . . 8-ft. extension cord and plug included. Operates on 90 watt bulb, not included. Size 12" x 3" x 4 1/4" wide. Weight 1 lb. 2 ozs. Plastic case. Stock No. 70,199-Q \$7.95 Postpaid. OPAQUE PROJECTOR with KALEIDOSCOPE ATTACHMENT. Same unit as above, but provides endless additional projects with everchanging kaleidoscope patterns. Stock No. 70,714-Q \$10.00 Postpaid



TEACHERS: Write for Educational Catalog Q-2 Edmund Scientific Co., Barrington, N. J.

MAIL COUPON for FREE CATALOG "Q"

EDMUND SCIENTIFIC CO.
Barrington, New Jersey

Completely new 1965 Edition. 148 pages. Nearly 4000 BARGAINS.
Please Rush Free Catalog "Q"

Name
Address
City Zone State

