vances in radiation treatment. Partly in consequence of the campaign a silent revolution had been effected, for it seemed that the recent changes witnessed in the radium practice of the whole cancer world were no mere therapeutic experiments of passing interest but evidence of fundamental change in the picture of cancer treatment. The radium bomb, so called, was coming to be regarded as a necessity of all well-equipped cancer centers. Fortunately the radium position had been materially eased by the discovery of radium deposits in Canada. It was not pretended that radium was a cure for cancer in the ordinary acceptance of the term, but in certain cases it gave results not hitherto obtained by any other method. One had only to point to cancer of the lip, tongue and uterus to realize the change in current practice. In these situations radium had in part or in whole replaced operative surgery. There was no hope that some sudden flash of genius would solve the cancer problem in a day. Every indication seemed to point to the necessity for laboratories and concentrated effort by skilled teams of workers, who, by pooling their experience and repeating and correcting one another's observations, would ultimately arrive at the truth.

THE BARUCH RESEARCH LABORATORY AT SARATOGA

THE cornerstone of the new Baruch Research Laboratory, named in honor of the late Simon Baruch, to be built at a cost of $750,000 at the Saratoga Spa, New York, was laid by Dr. Herman B. Baruch, taking the place of his brother, Dr. Bernard M. Baruch, who was abroad. Earlier this year Dr. Baruch established the Simon Baruch Medical Research Foundation, in memory of his father. Governor Herbert H. Lehman presided over the ceremonies and Dr. John Wyckoff, dean of New York University-Bellevue Medical College, made the principal address.

Five other buildings are under construction at the Saratoga Spa—the Hall of Springs, whose cornerstone was laid in July of last year; a bath house, a hotel with sanitarium facilities, a recreation center at which scientific recognition will be given to the therapeutic values of sports, and a bottling plant which will make possible a distribution of Geyser, Hathorn and Coesa waters three times as great as that now carried on by the state.

Construction contracts for these six buildings reach a total amount of $2,786,638. Furnishings and equipment will cost approximately $1,000,000 more, while landscaping and the golf course that will adjoin the recreation center will bring the cost to $4,000,000. The Hall of Springs, the research laboratory and the recreation center are all far advanced; foundations and steel work, with much of the inclosures, of the others will be completed before winter sets in.

Four years ago $2,000,000 was appropriated by the New York State Legislature for the carrying out of the first steps of the program submitted by the special commission of which Bernard M. Baruch was chairman, a program that was adopted and made a permanent part of the public health policy of the state. This appropriation provided the $900,000 that is being spent on the Hall of Springs and $400,000 for the first unit of the research laboratory.

A Reconstruction Finance Corporation loan of $3,200,000 became available last October. It is a stipulation of the contract that the project shall be completed by the fall of 1935.

In design and equipment the research laboratory is the joint product of Dr. Franz M. Groedel, director of the Kerckhoff Institute for the Study of Affections of the Heart, Bad Nauheim, Germany, consultant of the Saratoga Springs Commission; Walter S. McClellan, medical director; Cyrus Bruce Elmore, superintendent of the plant, and Joseph H. Freedlander, who also was architect of the Hall of Springs.

THE THREE HUNDREDTH ANNIVERSARY OF THE ESTABLISHMENT OF THE CHEMICAL INDUSTRIES

THE three hundredth anniversary of the establishment of the chemical industries in America will be celebrated at a meeting to be held in New York City by the American Chemical Society during the week beginning April 22, 1935.

According to an announcement made by Professor Arthur W. Hixson, of Columbia University, who has been appointed general chairman of a New York Committee of Arrangements, from 7,000 to 10,000 representatives of chemical science, the chemical industry and allied fields will participate. It is hoped that President Roosevelt will consent to deliver the opening address.

Professor Hixson writes:

> Leaders in industry, finance and government will unite with the chemists in centering world attention upon the nation's growing chemical industries, whose magnitude can now be computed only in "figures of astronomical proportions."
>
> With tremendous resources available in the form of nearly a half million known and unused chemical compounds, and with its highly trained and experienced technical personnel and flexible plant equipment, the chemical industry can be depended upon to lead the nation out of the depression. A survey, just completed, shows that research work has been continued without abatement by the chemical industries during the depression. Many new processes have been developed for making products that could not formerly be produced economically and many new products have been developed that have been designed to meet the needs of new and better living conditions. As soon as confidence in the

business policy of the nation is established, many new plants will be built and a flood of new products will come on the market. Modern American chemical industry is built solidly upon research and stands ready to bring new industrial life to the nation.

A study of world production of chemical products strikingly indicates the leading position of the American chemical industries. The annual production of chemical products in which these industries lead the world, such as petroleum products, rubber, cement, heavy chemicals, metal products, agricultural chemicals, engineering chemicals, explosives, foods, processing chemicals, air chemicals, sea water and brine chemicals, paints, pigments and many others are recorded in figures of almost astronomical proportions and whose values run into billions of dollars.

To-day, the United States produces more than three times as much sulphuric acid as Germany, four times as much as Great Britain, five times as much as France or Japan, and more than one third of the world output. Another typical product is chlorine. The United States produces more of this product than all of the rest of the world combined. Charleston, West Virginia, alone has a greater annual chlorine production than Germany. There are several alkali plants each of whose monthly production is greater than the annual output of Italy. The same supremacy is held by petroleum products, metal products, cement, synthetic textiles, rubber products, artificial leather and many others.

There will be held at the New York meeting a symposium on "The Economic, Social, Scientific and Political Structure of the Chemical Industries" by leading industrialists, financiers and scientific men. The program is being arranged with the assistance of the Merchants' Association, educational, art and other institutions.

THE SCIENCE EXHIBITION AT THE PITTSBURGH MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE Annual Science Exhibition of the American Association for the Advancement of Science will be held in the new building of Mellon Institute of Industrial Research during the association's meeting in Pittsburgh, December 27, 1934, to January 4, 1935. The exhibits, which will feature science in industry, particularly about Pittsburgh, will be on the third, the street level, floor of the institute's new home, just off Bellefield Avenue. At recent American Association for the Advancement of Science meetings there has been a growing recognition of the importance of the exhibition, and it is thought that the exhibits at Pittsburgh will be the most extensive and instructive ever shown.

The Committee on Exhibits, directed by Dr. F. C. Brown, and the local exhibition committee under the chairmanship of Dr. L. O. Grondahl announced on September 15 that about two thirds of the available space had been taken. As there will be about 4,000 in attendance from all parts of the United States and Canada, besides a somewhat larger number of manufacturers, scientists and teachers from the Pittsburgh area, it is recognized that exhibitors will have unparalleled opportunities to make contacts, to extend good will and to maintain prominence before a class of visitors whose opinions are weighty.

There will be many special attractions at the exhibition. In addition to the numerous commercial exhibits, there will be displays of cosmic ray research, deuterium, neutrons and induced radioactivity. There will also be presentations of equipment used in stratosphere flights, demonstrations of talking films with new subjects in the physical sciences, large biological displays and illustrated showings of recent advances in other sciences, particularly physics.

As mentioned, Mellon Institute will be the host to this exhibition. Every one who attends will therefore be able to see the principal features of the institute's beautiful new temple of science. Specialists interested in laboratory construction, equipment and operation can secure permission to inspect the facilities of the new building and can also see the displays of many companies that have made developments through the institute. There will be a reception room and lounge where members of the association may meet and confer or rest. Each afternoon tea will be served in the lounge, which will be made comfortable and attractive by aluminum furniture.

The exterior of the new building of Mellon Institute is completed and continuous progress is being made in the interior. Special attention is being accorded to finishing the laboratory rooms on the fifth and sixth floors. The erection of this edifice was commenced in 1930, and the structure is so designed that it will furnish the institute with the means for expanding greatly its research facilities and activities in both pure and applied science. The present two buildings of the institution are inadequate for the future needs of its departments and industrial fellowships, and hence the commodious modern home now under construction will be occupied just as soon as it is completed, during the fall of 1935. The building is of that type of classical Greek architecture known as Ionic; it is plain but massive, and is surrounded by 62 monolithic columns. Indiana limestone and granite are used throughout the exterior. The proportions of the building are about 300 x 275 feet, and there are nine floors. The main entrance, which is on the fourth floor, is reached by steps extending along the entire front on Fifth Avenue. The laboratories face on interior courts.

The architectural design of the exterior was perfected in detail by methods that involved the construc-