the wild genius shown by the printer in his errors. Yet surely he should not have stated, in SCIENCE of June 4, page 505, that the castration of patients with inoperable prostatic cancer is followed by 'dramatic happiness.' The word was "happenings'."

THE *Journal* of the American Medical Association reports that Dr. Walter B. Cannon, professor emeritus of physiology of the Harvard Medical School, is the president of the American-Soviet Medical Society, a new group founded to meet an increasing demand for information about the results and achievements of Soviet medicine. Dr. Henry E. Sigerist, director of the Institute of the History of Medicine at the Johns Hopkins University, Baltimore, is the editor of a journal to be published by the society, to be known as the *American Review of Soviet Medicine*. Temporary offices of the society are at 130 West 46th Street, New York. Through meetings, the publication of a journal and the establishment of a library of information, the society keeps physicians of America and members of the allied professions informed on what problems Soviet colleagues are working and what is being done to solve these problems. The society will also send American medical books and periodicals to the Soviet Union to keep the Russians informed of scientific developments in this country and to stimulate closer cooperation between the medical corps of the two countries. As soon as conditions permit after the war, the society hopes to promote the exchange of students and to sponsor study hours in the two countries.

THE University of Rochester ultimately will receive an estimated $1,784,275 for use as a research fund through the will of Mrs. Bertha H. Buswell, of Buffalo. Her will directed that the money be used to establish the "Bertha H. Buswell and Dr. Henry C. Buswell Memorial" for research work by the department of internal medicine of the School of Medicine. This amount represents the residue of her estate and is subject to a life interest by her brother. The late Dr. Buswell bequeathed $900,000 for the use of the department of urology in the medical school.

THE Texas Dental College, Houston, Texas, has been made a part of the University of Texas and is now officially known as the School of Dentistry of the University of Texas.

THE Bausch and Lomb Optical Company has announced the successful casting of the largest prism ever made—an optical disc twenty-six inches in diameter, graduated in thickness from 1½ to 3¼ inches and weighing 260 pounds. It was made for the Burrell telescope in the Warner and Swasey Observatory of the Case School of Applied Science at Cleveland.

THE editor of *Chronica Botanica* states that word has been received from a trustworthy Swedish correspondent that the herbarium and library buildings of the Botanical Museum in Berlin-Dahlem were completely destroyed during an air raid on the night of March 1 and 2. Practically nothing had been evacuated. With the exception of the fern herbarium and part of the fungi everything is gone. According to an official statement, publication of *Die Natürlichen Pflanzenfamilien* and *Das Pflanzenreich* will be discontinued.

THE foundation by the Royal College of Surgeons, London, of a research chair in ophthalmology, tenable at the Royal Eye Hospital, Southwark, has been announced. It is the first chair of its kind in England and the hospital has undertaken to raise £40,000 for its permanent endowment. The holder of the chair (the appointment has yet to be made) will devote the whole of his time to clinical research at the hospital and laboratory work at the Royal College of Surgeons.

A CABLE to *The New York Times* states that two more historic houses have been given to Great Britain in trust for preservation, Sir Isaac Newton's birthplace, Woolsthorpe Manor, near Granthan, Lincolnshire, and St. John's Jerusalem in Sutton-at-Hone, Kent. The gift of Woolsthorpe Manor was made possible through the generosity of the Pilgrim Trust, whose purchase of the property a few months ago to turn it over to the nation had already been announced. Many of the original features of the Newton birthplace have been preserved.

THE *Times*, London, reports that tunnellers of the Royal Engineers who continue blasting and boring their way into the heart of the Rock of Gibraltar have discovered a cavern which may have been sealed for 20,000 years. The cavern is of extraordinary beauty, glimmering white, gray and red stalactite columns, resembling a cathedral with pulpit, chancel and organ-pipes. The chamber contains a lake of fresh water nearly forty yards long and from seven feet to twenty feet deep. The largest column is seven feet in diameter and forty feet high.

DISCUSSION

THE SCIENCE MOBILIZATION BILL

IN reply to the letter of Dr. L. C. Dunn appearing in SCIENCE for June 4 attacking the statements, "95 per cent. of our scientific and technical manpower and facilities are now highly organized and coordinated to the single end of advancing the war effort" and

"practically every laboratory in the nation is in the service of the nation," I cite William L. Laurence's studies[1] of January 3, 1943, in addition to my own.[2]

Mr. Laurence states that "of the university research workers, fully 96.5 per cent. are now directly engaged in war work, with only 700 full-time research workers still available for this purpose. Among the industrial research laboratories in the fields of physics; chemical, electrical, and mechanical engineering, 93 per cent. of the personnel is working on war assignments." Since January, the percentage is probably higher in each group.

Any one who has had to do with engaging the services of or has served on governmental committees to find scientific and technical personnel knows that it is almost impossible to find any one who is not engaged in the war effort. At the last national meeting of the American Chemical Society held in Detroit in April, 1943, the Employment Bureau for Chemists found that there were six employers or more for every qualified chemist looking for a position. The scarcity of physicists and other scientists is even greater, judging from the difficulty the Army and Navy and war industries are having in filling their needs.

There are 630,770 persons[3] registered in the National Roster of Scientific and Specialized Personnel as of April 24, 1943. Of this group, 399,179 are physicians, dentists and veterinarians with the balance distributed as follows:

Chemistry	80,605
Civil Engineering	34,053
Electrical Engineering	22,027
Mechanical Engineering	21,669
Physics	11,054
Mathematics	9,154
Geology	9,028
Economics	7,990
Chemical Engineering	7,967
Biology	7,170
Psychology	5,933
Radio Engineering	5,630
Aeronautical Engineering	4,825
Automotive Engineering	3,265
Naval Architecture	1,221

It is interesting to note that the physicians and dentists are exempt from any rulings of the Kilgore Senate Bill 702. One may point out also that the Kilgore Bill defines as "scientific and technical personnel" "any one who has completed any course of study in any college or university in any branch of science or its practical application or who has not less than an aggregate of six months' training or employment in any scientific or technical vocation." (Sec. 2 Pt. b. S 702, 78th Congress.)

[1] *New York Times*, January 3, 1943.
[2] *The Chemist*, April, 1943, Vol. 20, 227, 1943.
[3] *New York Times*, April 24, 1943.

When Dr. Dunn makes the statement quoting[4] data of 1942 that there are "thousands of biologists of all kinds, of geologists, of mathematicians, and other scientists whose work has no immediate relation to the war," we again cite Laurence, who reports that there are now "87 per cent. of the mathematicians and 83 per cent. of the biologists in the research field who are now directly engaged in research problems in connection with the war."

When Dr. Dunn questions the truth of "There are no secrets in the oil industry for the duration" he has ignored completely the Honorable Harold L. Ickes, Petroleum Administrator for War, who addressed the American Petroleum Institute in Chicago on November 11, 1942, when he stated:

> You accepted our idea of district committees representing the industry through the country to consult with and advise us on the problems of producing, refining, transporting, marketing and conserving oil. As a result we have had, for more than a year, approximately three hundred of the leaders of your industry working continually with us in the multifold and worrisome task of making that priceless commodity do its part first in defense and now in war.
>
> The cooperative idea took hold. It worked. It worked so well that during the fall we decided to carry it further. The district committees had functioned adequately on regional matters, but an increasing number of our problems had national ramifications that called for a grouping which could operate on a national scale. Realizing this, I appointed seventy-two leaders of the industries as what is now known as the Petroleum Industry War Council. As in the case of the industry committees it represents both large and small interests. On it also are representatives of oil associations and cooperatives.
>
> This council was appointed on November 28, 1941, and the first meeting was held ten days later; and thus wholly without premonition even if I was responsible for what a member of the Council termed one of the great coincidences of history. The first meeting was held the day after Pearl Harbor. The President had not yet gone before Congress to ask for a formal declaration of a state of war but every man present sensed that the oil industry had already mobilized for a war in which the future of America itself was at stake. Around the table were the big names of the industry, heads of powerful integrated companies whose plants are familiar to every motorist. Yes, and also around the table were the leading independents and with them men whose names the average citizen would not recognize if he heard them—names that meant that the little fellows had just as much voice in the councils as the so-called majors.
>
> It is no military secret that in the summer of 1941, we were dangerously short of the capacity for making 100 octane (gasoline). Our production at that time, as you know, was only about 40,000 barrels a day and one four-motored bomber can use several barrels in a single hour of flying.

[4] J. S. Nicholas, *American Scientists*, 30: 297–298, 1942.

I wish that I might make public as a tribute of your industry the present production of 100 octane because it represents a near miracle, the proportions of which can not unfortunately be appreciated by anyone who does not understand the intricacy of the refinery equipment which is necessary and the complications of processes involved. It has been achieved because we have had a smoothly functioning government-industry partnership. Because the holders of patents of complicated processes which have been developed over many years at huge expense agreed to make those processes available at sharply reduced royalties to all who would participate in the effort. Because the experts of our office and those of your industry together work wonders in improving processes and in devising ways to avoid the use of scarce materials. Because rival companies were willing to share with one another their raw materials, their knowledge and their facilities. Because, in brief, there was the will to do and the organization to do it.

As one who has worked on many projects of which the Honorable Harold L. Ickes is speaking, I know that there are no "secrets" in the oil industry for the duration."

Dr. Dunn questions the motives in back of my opposition to the Kilgore bill and asks, "Is it concern for the public good or for corporation profit?" My answer is both. I believe we still live in a free enterprise system and that this system has made the United States the great country it is, and much of this greatness is based squarely on the patent system.

He quotes only the title to Section 7 "Protection of the Public Interest in Discoveries and Developments Financed by the United States." Section 7 (a) reads as follows:

> Any provision of law to the contrary notwithstanding, the Office is hereby vested with the exclusive right to use, and with the exclusive right to license others to use, (1) any invention, discovery, patent, or patent right which has heretofore resulted, or shall hereafter result, from research or invention for the carrying on of which the United States or any department, agency, or establishment thereof either has heretofore contributed at any time since the declaration of national emergency on May 27, 1941, or shall hereafter contribute, any money, credit, physical facilities, or personnel; and (2) any invention, discovery, patent, or patent right which is at the time of the enactment of this Act, or shall hereafter become, to any extent the property of the United States or of any department, agency, or establishment thereof.

As I understand this paragraph, it means that if the United States Government invested but $100 or furnished a single piece of equipment, or one individual with six months or more experience, it would have the rights to the patents, etc., flowing from the institution which has been assisted to that extent.

Dr. Dunn suggested that the directors of the American Chemical Society were biased when they stated that the Kilgore bill would "confer totalitarian powers." As a member of the American Chemical Society, I am in wholehearted agreement with the action of its directors. I have known each and every one of the directors of this society for many years and they are men of unimpeachable integrity.

My understanding is that other scientific and technical societies have opposed the Kilgore bill. Some of them are The American Electrochemical Society, American Institute of Chemical Engineers, American Institute of Mining and Metallurgical Engineers, The American Association of Engineers, The American Institute of Chemists, The National Society of Professional Engineers and the American Society of Civil Engineers.

GUSTAV EGLOFF,
President, American Institute of Chemists

RADIONICS

RIGHT now the public is being confused in the press and on the radio daily by two terms which mean exactly the same thing—"electronics" and "radionics." Electronics is of British origin and radionics has been used in our own country for some time, although I don't know who originated it.

Both these terms deal with the application of vacuum tubes in electrical circuits not only for broadcasting and radio communications, but to radio receivers, television, radar, photo-electric units, rectifiers, phonographs, hearing aids and other devices comprising this entire field.

Let's take a quick look at these two words.

"Radionics" springs from the Latin "to radiate" and the Greek "ion" (to wander or travel) and thus we get the term "wandering or traveling radiations," which is much to the point and extremely descriptive.

The first syllable of "electric," "electricity," "electronics," springs from the Greek root meaning "amber," which they discovered had certain properties when rubbed. Therefore I take it electronics is wandering amber. Is that descriptive?

The term "electron," as thought of to-day, is of British origin, having been first used by C. J. Stoney in 1891. Since we did not adopt the British words petrol, underground, bobby, pub, valve and wireless, but instead are using the Americanisms—gasoline, subway, cop, saloon, tube and radio, why should we adopt the word "electronics"?

Incidentally, in the early days of radio, the same confusion existed in the American public mind between radio and wireless as now exists between radionics and electronics.

Even the physicists have said, "Radionics is more descriptive." Dr. Arthur F. Van Dyck, president of the Institute of Radio Engineers, said at the Chicago annual dinner of the institute on December 18 last: "Recently I heard a term for these new radio fields which seems apt. It is 'radionics.' That seems to be