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

a good term if we want to find one which will win friends and influence people."

My point is, we have a good American word in "radionics," highly descriptive, looked upon with favor by engineers and physicists, and easily understood by the general public. A word that, in my opinion, is fit to describe the miracles now being wrought behind the secret panels of radionic laboratories—wrought for the winning of the war. A word that includes the entire field of radar, electronics and radio in one covering term.

Over the long distance telephone in the past few days I have talked with most of the leaders of the industry, and of the two terms all of them seem to feel the American term "radionics" is more descriptive and will be less confusing to the public.

For the sake of our entire industry I would be deeply interested in the reaction of the press. May I have your opinion?

E. F. MCDONALD, JR.

## MAKING MOSQUITO SURVEYS WITH A JEEP AND THE PBY-5

THE Patrol Bomber (PBY-5) and particularly the Jeep have been found indispensable in carrying out mosquito survey work at the U. S. Naval Air Training Center near Corpus Christi, Texas.

The success of the Jeep lies in its ability to go anywhere. She can wade through water that covers the floor boards, or scoot through brush that is higher than the car. Her four-wheel drive mechanism pulls her over sand dunes or through axle-deep mud. Throughout the design of the Jeep all waste space has been eliminated, but two men with collecting and camping equipment can successfully live out of her for days. Many successful reconnoitering survey trips have been made that included four individuals.

For the preparation of the survey map, it was found that a drawing board measuring $20 \times 36$ inches could be built into the rear seat. Each end of the board rests on the fender frames. A piece of $2 \times 4$ or $2 \times 6$ board is attached to the under side of the drawing board where it not only acts as a stop to keep the board from shifting, but raises it up to a more desirable level for drawing. Drawing paper can then be thumb-tacked to the board or sealed with decorator's self-sealing tape.

This type of arrangement has worked successfully in the preparation of maps in which the scale has been 2 or 4 inches equal to 1 mile. Thus, by means of the speedometer readings, compass, protractor and ruler, the location of the ponds, lakes, marshes, roads, creeks, etc., can be accurately plotted. It was found that there was no incorrect degree of deviation of the compass when it was held in the center of the drawing board. The mosquito breeding places have been located and plotted in an area of over 100 square miles in less than a week by the use of this method.

At many times, it is desirable to see the extent of the mosquito breeding area from the air, and for this the PBY-5 has been most frequently used. This ship is equipped with so-called "glass blisters" in the fuselage. This has the advantage of permitting one to see the ground in all directions. The PBY-5 is capable of flying at low speeds and from an altitude of 100 feet, detailed examination of the ground can be made and sketch maps prepared.

WILLIAM M. GORDON

U. S. NAVAL AIR STATION,
CORPUS CHRISTI, TEXAS

## DR. A. W. GRABAU IN CHINA

THE following communication from Mrs. Amadeus W. Grabau (Mary Antin) will be of interest to many geologists. Dr. Grabau, who has long been engaged in paleontological work for the Chinese government, is still living in Peking.

In November I received a very short letter dated August 4, 1942, in my husband's own hand. He stated briefly that he and his household were getting along tolerably well with the help of a subsistence allowance from our State Department which, as you probably know, all American nationals in enemy territory receive through the nearest Swiss representative. This letter was brought out of Peking by a friend, Dr. A. B. D. Fortuyn, who came out with the first lot of various nationals to be exchanged.

Later I called upon Dr. and Mrs. Fortuyn in New York. They gave me a reassuring picture of my husband. When they last saw him in August (1942), he was in no worse health than he had known for years past and was able to concentrate in his usual energetic fashion on his writing. Publication is of course very doubtful now, but at least there is no interference with his writing. His current secretary-housekeeper, a German lady—one of a succession of refugees whom Dr. Grabau has sheltered in his compound from time to time—seemed to be efficient and devoted. Some of his Chinese friends are still at hand to look after him as in years past. Also Dr. Hoeppli, formerly on the staff of Peking Union Medical College, now representing the Swiss government to look after American citizens in Peking, is well acquainted with my husband and sure to look after him.

General conditions in Peking were not too bad. The food situation was tolerable as of early August. American citizens, with the exception of two or three administrative officers of P.U.M.C., had the freedom of the city and were carrying on pretty much as in former days. My husband was left undisturbed in his own compound with a sufficient domestic staff.

A significant item was relayed to me by Dr. Roger S. Greene. In a news letter from Chungking dated November 10, 1942, was the following reference to my husband: "Professor Grabau has been given $6.00 local currency a month by the Japanese in token of their recognition