

wide distribution of publications, that were established during the latter part of the nineteenth and earlier part of the twentieth centuries.

McCarran Act Curtain

Therefore they want to reduce the keeping of scientific secrets to the absolute minimum necessary for national security in this time of international tension and strife. Therefore, also, they disapprove the red-tape curtain dropped around the United States by the McCarran Act.

Scientists, moreover, are naturally devoted to the principles of democratic freedom that shine so clearly in our constitutional Bill of Rights, based as they are upon the most important freedom of all, the freedom to think one's own thoughts and to express them so that they may be appraised in the court of public opinion. Any semblance of thought control is resented by the true scientist, because he knows it will blight his intellectual activities or those of someone else who may be just as good a scientist as he.

As a matter of fact, in spite of human frailties that occasionally mar its fair escutcheon, the fraternity of scientists is the outstanding example of a "free-society" in modern civilization. Each scientist is not only permitted but encouraged to form and express his own independent judgment. When he thinks others are wrong, he says so. By the same token, he is ready to submit his own opinion to the judgment of his fellows. All are confident that from the clash of opinion and the dust of controversy a collective judgment will be formed which will be generally accepted by all. Lasting friendships may persist, even though all differences of opinion have not yet been resolved.

Scientist Tries to Follow Truth

It is not surprising, therefore, that scientists occasionally speak up in defense of a fellow scientist who is charged with being guilty of disloyalty because of his associations, or who is being persecuted because of allegedly "un-American" ideas he may have expressed. Even though one scientist may heartily disagree with another's opinions, he knows he must defend the right of the other to express them, else he will be false to his high calling as a sincere and earnest seeker of the truth. He trusts the laws of libel and misconduct to take care of any pernicious extension of the principle of freedom, and with Thomas Jefferson, who was a scientist as well as a statesman, he says "we are not afraid to follow truth wherever it may lead, nor tolerate error as long as reason is left free to combat it."

These attitudes of the scientists, an inevitable consequence of the intellectual discipline of science as a way of acquiring knowledge, are obviously in perfect accord

with the genius of American democracy. They are, however, such as to make those who display them especially vulnerable to suspicion and recrimination in times of national fear and hysterical demands for security against dangers, without and within the nation.

It is quite unnecessary to remind you of the many attacks upon scientists in recent years, that serve as straws to show the direction in which some of the anti-scientific winds are blowing. If you don't like what a scientist says about the necessity for freedom from thought control in America, the wisdom of supporting the United Nations, the sharing of our surplus grain with hungry Indians, or anything else that he may say, the easiest way to slap him down is to insinuate that he is dangerously subversive and advocates doctrines that are approved by the Communists or their "fellow-travelers."

Anti-Scientific Machinery

The machinery for this expression of anti-scientific trends is unfortunately extensive and well-oiled. Lists of allegedly subversive organizations, membership in which is believed by many to be absolute proof of guilt, have been made public not only by the Attorney General of the United States and the Un-American Activities Committee of the House of Representatives, but also by legislative committees in several states and by numerous private organizations. Blacklists of suspected individuals are freely circulated, or sold at profitable prices, by many "patriotic" societies and "protective" associations. There seems to be a well-organized campaign to paralyze all independent thought, discussion, dissent and protest in America, and men of science are conspicuous among the targets of those who would force their fellow citizens to think only those thoughts which they themselves approve.

Against this trend the scientist should take a firm stand as a champion of intellectual freedom. He must not adopt the defeatist conclusion that the only sure way to avoid penalty for unpopular opinion is to express no opinion at all. Regardless of the odds against him, he must do his best to change the attitudes of mind of those who will yet listen to his words. Education for life in a free society must continue, and scientists have a great responsibility for its success.

Courage Is Answer to Fear

Just one specific example of the kind of education I have in mind. Few people know the facts about such lists of subversive organizations as that compiled in the Attorney General's office. Very little publicity has been given to the ruling of the U. S. Supreme Court, a few months ago, which, as former Attorney General Francis Biddle points out in his recent book, "The Fear of Freedom," knocked out the whole system of listing. The Court ruled that it was a denial of due process to thus brand

organizations without a hearing. We cannot hope to compensate for all the harm already done by the unjustifiable use to which these lists have been put, but we can at least hope to reduce their harm in the future by spreading such information about them as widely as possible.

The future is by no means hopeless for science and scientists in America, in spite of the contemporary trends of thought that are antagonistic to them. There is much reason for fearing the adverse elements in the mental climate that surrounds us, but as Robert Oppenheimer has well said, "The answer to fear cannot always lie in dissipating its causes or in yielding to it. Sometimes it lies, simply enough, in courage."

Science News Letter, January 12, 1952

INVENTION

Electric Table Lamp Is Energized by Radio Waves

► AN ELECTRIC table lamp, which has no wire or other visible connection to a source of electric energy, has been issued a patent. It is energized by radio-frequency waves from a transmitter in a secluded place in the room. Patent 2,579,989 was awarded to Nathaniel B. Wales, Jr., of New York City, on this invention.

Science News Letter, January 12, 1952

BIOCHEMISTRY

Fatty Chemical Linked To Tooth Troubles

► CHOLESTEROL, a fatty chemical involved in arthritis and artery hardening, now is linked with tooth troubles.

Tests of saliva from people with various disorders of the teeth as well as of the body show this. The tests were reported by Dr. Frances Krasnow of the Guggenheim Dental Clinic, New York, to the American Association for the Advancement of Science meeting in Philadelphia.

Persons who are "medically as well as dentally normal" have an average saliva cholesterol reading of seven. Those without tooth disorders but suffering from some disease such as artery hardening or arthritis have a saliva cholesterol reading of nine. Those with dental disorder only rate 11 and those with both tooth and body diseases rate 13. The figures are for milligrams of cholesterol per 100 milliliters of saliva.

When the teeth and the rest of the body are restored to their best state of functioning, the saliva cholesterol reverts to normal, Dr. Krasnow reported.

The new findings on cholesterol in saliva may lead to better understanding of the part this chemical plays in health and disease. In addition, saliva tests for cholesterol may give doctors and dentists a new diagnostic tool easier to use than blood tests.

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