

F. A. S. NEWSLETTER

FEDERATION OF AMERICAN SCIENTISTS
March 23, 1952

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HOUSE SLASHES NSF APPROPRIATION

PLAGUE AND PROPAGANDA

Soviet Delegate Jacob Malik has formally charged in the UN Disarmament Commission that the US has used biological warfare in North Korea. The charge, based on allegations by the North Koreans and backed by spokesmen of the Soviet bloc, was immediately denied by Secretary of State Acheson and UN Secretary Trygve Lie, and the US called on the International Red Cross to conduct an investigation. On March 21, Britain's Sir Gladwyn Jebb said that the Communists are admitting the falsity of their germ-warfare charges against the UN unless they agree to an impartial inquiry. Nonetheless, the story has been made the subject of major Soviet propaganda broadcasts during the past month and is still being exploited.

Specifically, the North Koreans claim that between Feb. 25 and Mar. 5, in many flights, 448 planes of the US army in Korea started epidemics by dropping infected animals and insects in Korea, Manchuria, and on Northern Chinese communities. Practical and scientific considerations make it improbable that the accusations have foundation, although the situation provides an excellent instance of the difficulties of assessing charges of this kind without direct investigation.

Even if the UN command had decided to use biological warfare in Korea, informed sources suggest that they would be unlikely to select plague. In several ways, it does not conform to the specifications for significant potential effectiveness of BW agents. Moreover, since plague is endemic in Korea, a higher level of immunity would be expected in the native population than among US and UN personnel, creating the serious threat of a "boomerang" for UN users.

While Korea, from a technical point of view, might provide a suitable field in which to use biological warfare -- because of generally low public health standards -- it is generally conceded that the US has at its disposal biological warfare weapons theoretically far more devastating than plague. It hardly seems credible that the US or the UN would risk alienating civilized opinion by introducing biological means into modern warfare, unless forced by desperate exigency. Nevertheless, in the absence of objective investigation, strong counter-arguments can be offered by one willing to assume well-nigh fiendish callousness on the part of the UN command.

Western explanation of the charges centers on their propaganda value. Accusing the UN of spreading plague simultaneously removes responsibility from the North Korean and Chinese governments and arouses wrath against the US and its allies. As in the case of the potato bugs which the US was alleged to have spread in Czechoslovakia last summer and in 1950, it appears that Uncle Sam is being blamed for the inability of Man to cope fully with his ancient microbial enemy.

Improbable as the charges may appear, it must be recognized that the US is particularly vulnerable to this kind of adverse propaganda. During and since the last war, we have spent millions of dollars exploring the possibilities of biological warfare. According to official reports, methods were devised to use "bacteria, fungi, viruses, rickettsiae, and toxic agents from living organisms to produce death or disease in men, animals, or plants." Official US statements (Defense Secretary James Forrestal, March 12, 1949) indicate that our large BW program is primarily aimed "toward securing for this nation adequate protection against the possible use of biological warfare by our enemies." An additional intent of the program, however, is "to enable us to utilize this weapon in the future should it become necessary."

Thus, the means of waging biological warfare are part of our armamentarium. Anyone who keeps a skunk as a pet must
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HOPE FOCUSED ON SENATE

On March 21 the House, following the recommendation of its Appropriations Committee, slashed to \$3.5 million the President's request for \$15 million for the National Science Foundation for 1952-53. Thus, for the third consecutive year, the House threw a road-block in the way of realization of urgent NSF objectives. It again endorsed the views of its Committee, which paid lip service "to the importance of this activity and the program it sponsors," but nonetheless concluded that "it is a new activity which is unlikely to provide assistance to the country in the immediate emergency."

It is important to note that by its action the House has reduced not only the NSF appropriation but the total allotment of federal funds to basic research. In accordance with the policy enunciated by the President in his Budget Message, the Bureau of the Budget had reduced the research requests of the Department of Defense, AEC, and several other agencies by \$7 million to compensate for the increased request for NSF. The reductions were in items from which basic research support has come in the past. Percy Priest (D., Tenn.) sought to restore this \$7 million by an amendment on the House floor. His praiseworthy effort was beaten down by the strong economy bloc.

If the cut is not to stand, the Senate and its Appropriations Committee, which have yet to act, will have to be convinced of its dangerous effects. Time does not wait. NSF is already far behind its schedule, not only in stimulating the training of new scientific personnel and expanding basic research, but in its broader objectives of formulating national science policy, bringing balance into the federal science program, and improving conditions at the national level for scientific productivity and utilization of scientific results. Small appropriations will soon set into a pattern, leaving NSF a minor "give-away" agency instead of the keystone of federal science that was envisioned.

The budget submitted by NSF, in comparison with 1952 estimates, was broken down into major headings as follows:

	1952 estimate	1953 estimate
1. Research policy & services	\$670,000	\$835,000
2. Research support	1,430,000	8,800,000
3. Training of scientific manpower	1,400,000	5,365,000
	\$3,500,000	\$15,000,000

It is up to scientists and their organizations throughout the country to make clear to the Senate Committee what these figures actually mean in terms of concrete situations -- for particular institutions, particular investigators, particular research projects. In an effective demonstration to this Committee that "immediate emergency" is a false criterion to apply to NSF lies the only hope of salvaging a reasonable appropriation in this election year.

SENATE APPROPRIATIONS COMMITTEE MEMBERS

Subcommittee on Independent Offices:

Kenneth McKellar (D., Tenn.), Committee chairman
Joseph C. O'Mahoney (D., Wyo.), Subcommittee chairman
Styles Bridges (R., N.H.)
Guy Cordon (R., Ore.)
Allen J. Ellender, Sr. (D., La.)
Homer Ferguson (R., Mich.)
Lister Hill (D., Ala.)
Burnet R. Maybank (D., S.C.)
A. Willis Robertson (D., Va.)
Leverett Saltonstall (R., Mass.)
Edward J. Thye (R., Minn.)



LOYALTY to Teach and Travel

A new sacrifice of traditional democratic ways on the altar of Security took place on March 3 when the Supreme Court, in a 6-3 decision, upheld New York's Feinberg Law. The Law, passed in 1949 and since held in abeyance pending court review, permits the State's Board of Regents to compile a list of subversive organizations and to exclude their members from the schools as teachers or supervisors. A system of review is provided both for organizations and individuals.

A central issue in the case was free thought and inquiry vs. state security. Said Justice Minton for the majority, "A teacher works in a sensitive area in a schoolroom. There he shapes the attitude of young minds towards the society in which they live. In this, the state has a vital concern. It must preserve the integrity of the schools. That the school authorities have the right and the duty to screen the officials, teachers, and employees as to their fitness to maintain the integrity of the schools as a part of ordered society, cannot be doubted. One's associates, past and present, as well as one's conduct, may properly be considered in determining fitness and loyalty. From time immemorial, one's reputation has been determined in part by the company he keeps. In the employment of officials and teachers of the school system, the state may very properly inquire into the company they keep, and we know of no rule, constitutional or otherwise, that prevents the state, when determining the fitness and loyalty of such persons, from considering the organizations and persons with whom they associate."

Said Justice Douglas, in his strongly worded dissent, "The public school is in most respects the cradle of our democracy. ...the impact of this kind of censorship on the public school system illustrates the high purpose of the First Amendment in freeing speech and thought from censorship. The present law proceeds on a principle repugnant to our society -- guilt by association. ...

"... Youthful indiscretions, mistaken causes, misguided enthusiasms -- all long forgotten -- become the ghosts of a harrowing present. Any organization committed to a liberal cause, any group organized to revolt against a hysterical trend, any committee launched to sponsor an unpopular program becomes suspect. ... The law inevitably turns the school system into a spying project. ... Bars are cocked for tell-tale signs of disloyalty. The prejudices of the community come into play in searching out the disloyal. ... What happens under this law is typical of what happens in a police state. ... A pall is cast over the classrooms. There can be no real academic freedom in that environment. Where suspicion fills the air and holds scholars in line for fear of their jobs, there can be no exercise of the free intellect. Supineness and dogmatism take the place of inquiry. ... This system of spying and surveillance with its accompanying reports and trials cannot go hand in hand with academic freedom. It produces standardized thought, not the pursuit of truth."

Said Justice Black in a concurring dissent, "This is another of those rapidly multiplying legislative enactments which make it dangerous -- this time for school teachers -- to think or say anything except what a transient majority happen to approve at the moment. ...public officials cannot be constitutionally vested with powers to select the ideas people can think about, censor the public views they can express, or choose the persons or groups people can associate with. Public officials with such powers are not public servants; they are public masters."

Possibly as disquieting as the Feinberg Law and its sustenance by the Supreme Court were the sleazy editorial comments of usually liberal journals. The Washington Post was able to find much to agree with in each of the sharply divergent opinions. It felt "a good deal of sympathy" with the fears of Justices Douglas and Black, but it concurred with Justice Minton that "the State has the most vital sort of obligation to maintain the integrity of its schools and to avoid conditions that would aid perversion of the educational process." It opined that "the spying and the tendency toward suppression that usually accompany enforcement of statutes of this sort are deplorable. But we doubt that they are as dangerous as leaving Communist and fellow-traveler teachers undisturbed in the schools."

The Christian Science Monitor intoned, on the one hand, "We are prepared to accept, with certain reservations, the general wisdom of this decision as a reassurance, in the strange atmosphere of the moment, that the Constitution and the high court which interprets it do not render the law impotent to deal directly with this dark conspiracy which the people fear." On the other hand, it raised the question "whether the law does not imperil as many precious values as it seeks to protect."

VISA COMMITTEE NEEDS MORE INFORMATION

The FAS Committee on Visa and Passport Problems is still collecting information concerning individuals who have had difficulty obtaining visas to come to the US. Please write to V. Weisskopf, Physics Department, M.I.T., Cambridge 39, Mass., if you know of any cases and have not already filled out the form sent out by the Washington chapter just before Christmas. All information obtained will be held confidential, but names are needed to prevent duplication.

DON'T WAIT -- WRITE NOW!

THE ACLU AND THE PASSPORT PROBLEM

The American Civil Liberties Union has initiated action in the Federal District Court in Washington to determine the constitutionality of the passport provisions of the McCarran Act and the State Department's authority to deny passports without the privilege of a hearing. The suit, which was initiated after a year-long ACLU study of passport procedures, is in behalf of Miss Anne Bauer, a naturalized free-lance writer currently living in France. Miss Bauer had her passport revoked without explanation by the Passport Division, and has not been given a hearing to answer whatever charges there may be against her. It is contended that Miss Bauer's rights to due process of law, guaranteed by the Fifth Amendment, have been violated.

The suit is in line with a series of recommendations regarding "freedom of travel" which arose from the ACLU study. These recommendations were:

1. Appointment by the Secretary of State of a commission of three eminent citizens to examine and report on the files of the Passport Division. Their report would be used by the Secretary as a basis for formulation, in advance, of standards for denial of passports, and to establish review procedures.
2. Legislative action by Congress to make the issuance of a passport to an American citizen mandatory and prohibiting its revocation except for specifically stated reasons. The ACLU recognizes that the "right of travel" must be subject to reasonable restrictions but asserts that no restriction is reasonable unless the criteria are clearly expressed and are defined before the event.
3. The State Department should discontinue refusal (out of fear of unfair criticism of the US abroad) of passports to members of extreme left-wing groups. The ACLU states that refusal of a passport would be proper if the Department has sufficient evidence to infer that the passport will be used for the purpose of engaging in conspiratorial activities against the peace and security of the United States. However, "it sees no reason for foreclosing, abroad, utterances of the sort that constitutional guarantees permit within the United States." Free debate abroad as well as at home is the best possible proof of a people's fundamental soundness and strength.
4. The passport provisions of the McCarran Act, in their present form, should be repealed. Passports should not be denied solely on the basis of membership in organizations -- as is done in the Act.
5. A formalized procedure should be established within the Department of State to review initial determinations respecting passports. This should be done whether or not clear and comprehensible standards for the issuance or denial of a passport are established, since procedural safeguards against abuse of discretion are urgently needed. The Department should be required to reveal the basis for denials or revocations (except when it is demonstrated to the satisfaction of a court that the applicant may be involved in espionage or sabotage, and the disclosure of sources might impede counterintelligence) and judicial review of abuse of discretion should be provided.
6. Court cases should be instituted to test various critical phases of present passport procedures.

LEGAL OPINION

The Yale Law Journal for February, 1952 contains an exhaustive paper on "Passport Refusals for Political Reasons: Constitutional Issues and Judicial Review." The conclusions are that the present standards for refusal should be held unconstitutional. Even if the standards are upheld, the Journal article maintains, the present procedures violate due process.

A-STEW BUBBLING

RUSSIANS HINT TACTICAL A-BOMBS DEVELOPED

"Atom bombs of various calibers have been developed and tested," claimed Russian officials on Feb. 23, as Soviet military spokesmen and press celebrated the 34th anniversary of the Red Army with threats of "crushing, deadly blows" to any "aggressors." The claim suggests that the gap in the atomic armaments race may be closing more rapidly than western observers originally anticipated.

The testing of tactical atomic weapons in Nevada last year helped to re-establish American confidence in the security afforded by our leadership in the technology of nuclear weapons; but even before the recent Moscow announcement, US officials were reported making a serious re-evaluation of Russian atomic progress. On February 7, Hanson Baldwin argued in the N. Y. Times that the "Russians may be closer...in the development of tactical atomic weapons than we suppose." He supported this conjecture with an analysis of the well known Russian penchant for tactical rather than strategic bombing. On February 17, the Alsop brothers reported that the American government, after a "hard new look at Soviet... capabilities," has been led to "an upward revision of the estimates of Soviet atomic capabilities."

The Alsops noted that some American physicists are urging a "new look...at the whole strategic-political problem created by the atomic production race." This was, in fact, the subject of an FAS letter sent to the President several months ago urging appointment of a new Acheson-Lilienthal type Commission.

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BRITAIN'S BOMBS

The mid-February announcement that Great Britain has produced and is soon to test its first atomic bomb may have important repercussions in the complex international atomic energy scene. The new development has certain hopeful aspects. The questions of US scientific secrecy and security, for example, are apt to be re-examined, with fair possibility of a resulting increase in exchange of atomic information between our own and foreign scientists. The widespread popular belief that methods of atomic bomb production are "secrets," which can be permanently kept and guarded, has received a severe blow in the announcements by Britain and the USSR, and the prospects for eventual establishment of a more rational security system for scientific information are improved.

Recent British refusal to accept an offer of American test facilities reportedly had several contributory factors -- desire to increase their own national prestige, annoyance at the manner in which the wartime partnership was so completely destroyed by Congressional action, unwillingness to accept numerous restrictions imposed by American law. The British apparently intend to proceed on their own way until they can bargain with the US more nearly as equals in atomic energy matters.

Although it appears impossible for the British to outproduce us in fissionable materials, there are many hints that they believe themselves ahead of us in some important special techniques, such as control of the size of bomb blasts.

Meanwhile, the existence of a third "bomb-owning" country has implications in the field of international control of atomic weapons. As an increasing number of nations reach this status, it becomes ever clearer that atomic disarmament is a problem for all peoples and not just a football to be kicked back and forth in the special rivalry between the US and the USSR.

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U.S. TALKS ATOMIC POWER

Last month AEC reported on advances in the peacetime application of atomic energy, at the same time releasing from secrecy the details of the nuclear reactors at Brookhaven Laboratory and Oak Ridge. Though admitting that today's emphasis is primarily on military applications, AEC Chairman Gordon Dean, in an article in Parade Feb. 24, points to a number of significant achievements on the constructive side, e.g., the "atomic energy machine" in Idaho which has been used to develop electric power. In this case a very high reactor temperature is necessary for thermodynamic efficiency in power production.

The "first practical application of atomic power" will, according to Dean, probably be a product of the military program -- the propulsion of a submarine. The "first practical civilian application" would be a central-station power plant. However, Dean has warned in a letter to Rep. Jackson (D., Wash.) that because of the high costs involved, atomic electric power will probably not take the place of low-cost conventional power "even in 25 years."

COMING FAS MEETINGS IN WASHINGTON

May 1 * * * * Membership meeting, arranged by the Washington chapter. Refreshments. Thursday evening. Details to be posted near Physical Society desk.

May 3 - 4 * * * Council meeting, at 1719 N Street, 8 PM Saturday and 10 AM Sunday. Observers welcome.

Reminder: Ballots in the annual election, now in progress, should be returned to the Elections Committee by April 1.

UNESCO NEWS

As a first step in his duties as Director of Public Education in Science of UNESCO, Gerald Wendt is endeavoring to establish closer relations with science journals, science writers, and their associations throughout the world. The Department of Mass Communications of UNESCO is about to start publishing "UNESCO Science News" in which will appear news releases prepared especially for science writers.

As a sample news release, an authoritative statement is being publicized on the whole-hearted agreement reached at Geneva, under UNESCO auspices, by representatives of twelve nations, establishing a Council for the study of high energy nuclear particles. An international laboratory and other means of cooperative research in nuclear physics are among the first projects to be undertaken. The research will be without military implications and will be assured full freedom of publication.

The latest issue of Impact, UNESCO publication on the interaction of science and society, contains a bibliography with abstracts of works published between 1900 and 1950 in French on the social effects of science. Also included are selected abstracts from French authors ranging from the early science writers such as Descartes and Laplace to the moderns, Paul Valery and Jean Rostand.

The February number of UNESCO's Courier, an illustrated monthly devoted to worldwide activities in the sciences, arts, and education, has an excellent summary of the development of modern calculating machines. Another article is on the Patzcuaro (Mexico) training center where 50 Latin-American teachers were taught how to become leaders in fundamental education. Working in small villages, they are now to train other teachers in a chain process which should result in raised health and living standards.

Informational material and a bibliography are also being distributed by Director Wendt on the second theme selected by UNESCO for worldwide discussions: "Energy in the Service of Man." The first theme was "Food and People."

UNESCO publications are obtainable through the Columbia University Press, 2960 Broadway, New York City.

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DOCTORS AGAINST WAR

Bulletins 2 and 3 have been received from the Medical Association for the Prevention of War, whose formation in England was reported in the December 12 Newsletter. Renewed attention is directed to war as a social disease in which "the gathering momentum of rearmament becomes an irreversible process that produces a psychotic state in which the guns have to go off to release pent up emotions." Similar societies have been formed in Belgium, France (over 600 members), and by American Quaker physicians. The bulletins also report a petition signed by 520 Dutch doctors asking their government and people to help in substituting a world order based on social justice for the present chaos.

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New membership and a special introductory subscription to the "Bulletin of the Atomic Scientists" (not an FAS publication) \$7.50.

NSF Foundator. APPOINTMENTS

On March 11, NSF announced the members of its divisional committees for the biological and physical sciences:

Divisional Committee for Biological Sciences:

Marston Bates, Zoology, Rockefeller Foundation
George W. Beadle, Biology, Calif. Inst. of Technology
Donald P. Costello, Zoology, U. of North Carolina
Wallace O. Fenn, Physiology, U. of Rochester
Jackson Foster, Bacteriology, U. of Texas
Theodor Just, Botany, Chicago Natural History Museum
John S. Nicholas, Zoology, Yale University
Hubert B. Vickery, Biochemistry, Conn. Agric. Exp. Sta.
Douglas M. Whitaker, Biology, Stanford U.

Divisional Committee for Mathematical, Physical, and Engineering Sciences:

A. Adrian Albert, Mathematics, U. of Chicago
Jesse W. Beams, Physics, U. of Virginia
William L. Everitt, Engineering, U. of Illinois
Leo Goldberg, Astronomy, U. of Michigan
Morrough P. O'Brien, Engineering, U. of California
George B. Pegram, Physics, Columbia U.
Charles C. Price, Chemistry, U. of Notre Dame
William W. Rubey, Geology, US Geological Survey
Cyril S. Smith, Metallurgy, U. of Chicago
Samuel S. Wilks, Mathematics, Princeton U.
E. Bright Wilson, Jr., Chemistry, Harvard U.

These Committees, established by the Act, serve in an advisory capacity on broad policy questions for their particular fields. They are separate from the consultants on operational matters such as the evaluation of grant applications.

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First grants for international travel were made by NSF to four mathematicians to serve as US delegates to the First General Assembly of the International Mathematical Union in Rome, March 6-8, 1952. This infant program to further international scientific communication is jeopardized, like all other NSF activities, by the drastic House cut (page 1).

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Plague and Propaganda (Continued from Page 1).

expect accusations when an objectionable odor is detected in his neighborhood.

The Associated Press, on March 21, quotes "informed sources" suggesting that Soviet Delegate Jacob A. Malik is planning another major blast on biological warfare at the March 26 meeting of the 12-nation Disarmament Commission. Perhaps it is time to reduce our propaganda vulnerability by a clear declaration that our interest in BW is entirely defensive, that we would never employ it offensively, and that we reserve the right to use it only because our retaliatory power may deter others who might be tempted to use it.

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SOVIET CHEMISTRY

The Academy of Sciences of the USSR has laid down the lines of Soviet orthodoxy in organic chemistry as was previously done in genetics and psychology. The Conference on the Theory of Chemical Structure in Organic Chemistry held in Moscow in June, 1951 adopted a resolution (Nature, Jan. 19, 1952) denouncing "...the sterile 'theory' of resonance, and the blunders of the Soviet scientists who have developed this unsound conception and applied it in their work..." Chemists were severely criticized for not having given "...sufficient attention to the struggle for the establishment of the dialectical-materialism world-view in chemical science..."

As in the genetics controversy, a number of important Russian chemists were singled out and publicly denounced because they had been "ensnared by the unsound, idealistic 'theory' of resonance." Several -- Syrkin, Dyatkina, Volkenshteyn, Kiprianov -- "now acknowledge the invalidity and sterility of this 'theory.'" But their statements are regarded as "unsatisfactory" because they "did not give a reasoned criticism of the 'theory' of resonance or mesomerism and a detailed analysis of their serious methodological and ideological errors."

The Conference resolution warned that "...the ideological perversions in matters of chemical theory are closely related to the hostile theories in biology and physiology, and that, taken together, these present a united front in the fight of reactionary bourgeois ideology against materialism."

The inspiration for the conference action seems to be "The decision of the Central Committee of the Communist Party regarding ideological questions..." which has "...mobilized the attention of the Soviet chemical community to the methodology of science and helped to reveal errors present in chemistry and to mark out the future path of development of chemical science on the basis of the uniquely correct dialectical-materialistic world-view."

The stamp of approval is placed on the theories of A. M. Butlerov (1861), "...the creator of structural theory..." "The Conference calls on chemists, and also on scientists working in allied fields of physics, to take up the further creative development of A. M. Butlerov's theory of chemical structure on the basis of dialectical materialism, guided by the great works of I. V. Stalin and by his directions concerning the role and significance of progressive science in the evolution of society and the role and significance of criticism in the evolution of science."

The resolution of the Conference closes debate and calls for "...the writing and publishing of new text-books on organic chemistry that correctly portray the present state of chemical science." It ends with a tribute to "the scientific genius, Iosif Vissarionovich Stalin."

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The Journal of Chemical Education presents in its January 1952 issue a translation of another official report of the Russian Academy of Sciences on "The Present State of the Chemical Structural Theory." The report, longer and more technical than the one carried by Nature, also clearly indicates that whatever work in chemistry is carried on in the Soviet Union will need to be cast along 'Butlerovian' lines.

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