F. A. S. NEWSLETTER

FEDERATION OF AMERICAN SCIENTISTS September 20, 1950

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ASCENDING -- MOBILIZATION, ATOMIC DEFENSE

Mobilization of Scientists. There has been intensive activity in Washington for the past two months on problems of mobilization of scientific manpower. Evidence of this activity, and of some of the issues producing disagreement, boiled to the surface during the past several weeks in connection with legislation to make doctors and dentists subject to the draft. Several bills to accomplish this narrow purpose had been introduced in both House and Senate. But in mid-August, Sen. Gurney (R., S.D.) introduced a broadened version applicable to all personnel in "professional, technical, scientific, and specialist categories." At hearings before a Senate Armed Forces subcommittee August 22, it became clear that the Defense Department was anxious to kill several birds with one stone and was seeking blanket authorization to meet its skilled manpower needs. The Department itself, in a memorandum to the subcommittee, described the Gurney bill as a "wide-open manpower registration Act."

Informed opinion during the 48 hours following the Senate hearings regarded the Gurney bill as almost certain to move rapidly through Congress. But four days later (Aug. 26), Chairman Vinson of the House Armed Services Committee introduced a House version limited to "medical, dental, and allied specialist categories." The House Committee held hearings on Aug. 28 and both it and the Senate Committee reported out bills limited to medical, dental, and allied personnel. These were passed by the House and Senate on Aug. 28 and 29. The House version defined "allied specialist categories" to include, among others, bacteriologists, biochemists, biophysicists, radiation physicists, physiologists, organic chemists, radiation chemists, etc. This broad list was reduced in conference to eliminate all but veterinarians, opto-

metrists, pharmacists, and osteopaths. The bill was signed Sept. 9.

Behind this rapid-fire series of events, involving the sudden expansion of a relatively minor bill into a general registration of skilled manpower and its equally sudden contraction to its original limits, lie deep-seated conflicts over policy and assignment of power. Involved are such problems as the degree of mobilization required by the current situation, the extent to which involuntary methods of personnel recruitment should be used, and perennial civilian-military antipathies. In general, the two poles of official opinion lie in the Pentagon and the National Security Resources Board. The latter agency, recently revitalized under Stuart Symington after a long period of dormancy, is increasing in importance. It is charged with responsibility to ensure adequate supply and mobilization of all national resources, including specialized mannower, in time of war.

The <u>Defense Department</u>, faced with an immediate need for doctors and dentists, sought to couple with it its projected need for specialists in general, in the event of full mobilization. The grant of authority it requested would have given to the military a first mortgage on all available scientific talent. NSRB, also thinking in terms of full mobilization, but having to consider the needs of the whole economy rather than those of the military alone, suggested small but significant changes in wording. These would have extended the grant of authority even more widely, but would have transferred the site of authority and the discretion to wield it from Defense to the President.

In these efforts of NSRB was visible the thinking of exponents of a National Service Act, designed to establish new machinery for personnel allocation operating parallel with the military, but under civilian control. In such circles it is suggested that special skills be transferred from the jurisdiction of Selective Service to that of National Service, possibly even placed in a distinctive uniform, and allocated as needed. When the Defense Department blew up the doctor-dentist bill into a major football and kicked it off, the NSRB, not strong enough to block it, tried to turn it at

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Civil Defense. One of the basic assumptions of current U.S. defense planning is that an enemy will move first to disable our key seaboard cities and inland industrial centers. Given this assumption, the impasse on atomic control, and the worsening international situation, the need for acceleration of a realistic civilian defense program seems obvious. As the first faltering steps in this direction are beginning, there is point in briefly reviewing the nature of the problem and its current status.

It is generally agreed that in the military sense there is no truly effective atomic defense short of full dispersal of industry and urban populations. But dispersal is a long-range solution which poses almost insurmountable obstacles, given our present political and social state of mind. It would call for drastic changes in our established mode of life and appropriations so vast (estimated at \$300 billion) as to severely strain our present economy. Nevertheless, the fact remains that both our urban population and the industrial heart of the nation are today not safe from atomic attack. What is sorely needed is a coordinated nation-wide program to meet long- and short-range needs. The program should provide for dispersal in stages, beginning with crucial transportation bottlenecks, war production plants and administrative agencies, and continuing to the less crucial, as circumstances require and permit. It must include provision for evacuation and re-employment of millions made homeless or jobless by the program and must be coupled with immediate defense plans for reduction of damage, and prevention and treatment of casualties -- to be worked out in detail at the local level. In short, any adequate plan of civil defense must prepare both for possible immediate attack on selected targets in the next few years and for meeting all-out atomic aggression, should it come in the next five to ten years.

At the present time, the whole pattern of civilian defense can only be judged makeshift and inadequate. On the state and local level activities are based, in too many cases, on insufficient knowledge of the frightening problems raised by modern weapons of mass destruction. It is true that recently a number of Federal studies and reports have been made and given wide distribution. The most authoritative of these was not issued until Sept. 18 when the Office of Civilian Mobilization (OCM) of the NSRB, released its publication, "U.S. Civil Defense," (149 pp; \$.25 per copy, from Sup't of Documents, Gov't Printing Office, Washington 25, D.C.) for use at state and local levels. A long-range plan of any sort is not expected to be completed until 1952. It is true that some states and localities have tackled the problem without waiting for Washington instruction, and if titles were adequate protection, the nation would certainly be ready. Locality after locality has named civil defense directors, appropriated money, or initiated studies. Much of this planning, however, is founded on tin hat and sand bucket techniques of World War II and little of it has taken material form. In 1/3 of the states, activity has not progressed beyond the planning stage; in at least 6 states, civil defense legislation failed to pass after introduction in the 1949 legislatures; in fact only in about 18 states has specific civil defense action legislation been enacted and little of this has gone beyond the initial stage. Even in the nation's capitol, where the country's law-makers should be more aware of the frightening facts of unpreparedness for atomic attack, there is yet to be effected any sort of civil defense set-up.

It may well be, as President Truman has said, that civil defense planning is much further advanced than anyone realizes, but even if the planning is advanced the actual means for defense are, at the moment, inadequate. The simple disheartening fact is that if an A-bomb were dropped on any of our large cities tomorrow, no one would know what to do, where to go, or even whom to see about what to do. Norvin C. Kiefer, health resources director of the OCM, states that only a handful of doctors are trained in

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DESCENDING -- INDIVIDUAL RIGHTS

Oaths and Academic Freedom at California. The fight over loyalty oaths for university employees continues to flame at the University of California. After over a year of negotiations and maneuvers, faculty protests were beaten down and the signing of a statement of non-membership in the Communist Party was made a condition for employment. Over 30 senior faculty members who refused to sign the statement have been dismissed from positions which some held for the better part of distinguished professional careers. None of these was accused of being a Communist, and a number had enviable records in the armed services or in war research.

Fear is widespread in academic circles that the effects of the California faculty's defeat will be felt in other university centers. Evidence of the beginnings of a nation-wide campaign to restore academic freedom at California came in an action of the American Psychological Association, taken during its annual convention at State College, Pa. The Association wired California

officials as follows:

"In view of the unsatisfactory tenure conditions for teachers and research personnel in the state university system of California, the Board of Directors of the APA by unanimous agreement has instructed the Association's placement service to refuse assistance in filling vacancies in this system until such time as tenure conditions meet acceptable standards. Furthermore, it is recommending to the Association's members that they not accept positions in the state university system until such time as tenure conditions improve."

The Association also adopted the following resolution:

"In view of the evidence available to it at its meetings this week, the Board and Council strongly urge that the APA membership as individuals offer tangible support, in all possible ways, financial and otherwise, to their colleagues whose connections with the U. of California at Berkeley have been severed by recent action of the Regents. Financial support should go to the Group for Academic Freedom c/o E. C. Tolman."

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Dr. E. C. Tolman, psychologist brother of the late physicist, Richard Tolman, and member of the U.C. staff for 31 years, and approximately 20 others are testing their dismissal in the courts. "Academic Assembly" (P.O. Box 292, Berkeley, Calif.), an organization of junior staff members, is preparing a history of the conflict and appeals for funds to continue the fight. The American Ass'n of University Professors is making a thorough study of the facts of the case, and an early report is expected.

"The Year of the Oath -- the Fight for Academic Freedom at the University of California", a book by George R. Stewart, in collaboration with other professors at the Univ. of California, will be published Sept. 21 by Doubleday and Co. (156 pp; \$2.00).

AAAS Civil Liberties Report. The Report of the Special Committee on the Civil Liberties of Scientists to the Executive Committee of the American Assoc. for the Advancement of Science, submitted in Dec. 1948, has recently become available (from AAAS, 1515 Mass. Ave., N.W., Washington 5, D.C.; \$1.00 per copy). In the light of recent developments; the Report makes prophetic reading. Three major problems are discussed:

First, the effects of restrictions on research and scientific information are evaluated. Classification of information, it is concluded, should in the main be limited to immediate military applications of findings, and not extended to the findings themselves. Data useful for further basic research ought not to be classified. Extension of secrecy beyond this boundary, the Special Committee believes, would result in a lowered scientific efficiency, stagnation, and eventual "scientific suicide." (A telling example is given: If we were to make progress against the common cold, should this knowledge be made public, or should it be treated as a military advantage?)

Second, the personnel security programs in the AEC and Defense Department are discussed. This information is, understandably, not up-to-date (a recent summary of loyalty and security procedures can be obtained from the Scientists' Committee on Loyalty Problems, 14 Battle Rd., Princeton, N.J.). The shortcomings listed in the report still exist in some departments of the government; several still are common to all.

The effects of the extension of personnel security procedures into non-secret areas are reviewed, especially with reference to the caliber of scientists available for employment by the government. Security clearance has been extended to all AEC fel-(Continued in column 2)

Security Further Extended. On Aug. 26, President Truman signed the Tydings-Murray bill giving power of summary suspension to the heads of the Departments of State, Commerce, Justice, Defense, Army, Navy, and Air Force, and to the Coast Guard, AEC, Nat'l Security Resources Board, and Nat'l Advisory Committee for Aeronautics. The Act provides that any of these officials "may, in his absolute discretion and when deemed necessary in the interest of national security, suspend, without pay" any employee under his jurisdiction. The agency head, if he determines that "the interests of national security permit," may notify a non-status (temporary) employee of the reasons for suspension and permit him to file defending statements and affidavits. "Following such investigation and review as he deems necessary," the agency head may terminate employment and his ruling is "conclusive and final." In the case of status (permanent) employees, an appeal and full hearing within the agency are mandatory prior to final dismissal. Provision is made for full compensation of such employees in the event of reinstatement. Reemployment rights in other government agencies are unaffected by dismissal under the Act, except that Civil Service Commission consultation is required prior to such reemployment. Finally, the President is empowered to extend the provisions of the Act to such other agencies as "the best interests of national security" require.

The Rooney rider became law as of Sept. 6, when the President signed the omnibus appropriations bill. It gives the power of summary dismissal to the Secretary of Commerce "in his absolute discretion" when deemed "necessary or advisable in the best interests of the U.S." The Secretary of State has similar power. No appeal mechanism whatsoever is provided. The FAS strongly opposed the Rooney rider because it extends arbitrary dismissal power to non-sensitive areas, and fails to provide adequate safeguards to the employee. Only Sen.Wayne Morse (R, Ore.) spoke out against the measure on the Senate floor. He said in part: "...this section of the bill is highly arbitrary. It does not provide a check or any review or any appeal at all from the decisions of the dismissing officers....We owe it to our sense of fair play and justice to provide some appeals procedure..."

The tightening web of security thus further constricts long cherished rights of Civil Service employees. It must be noted in passing that government personnel traditionally are first to feel the weight of restrictive legislation in times of hysteria. Loyalty oaths and investigations began with government and are now spreading rapidly. Summary dismissal is a new breach in the dikes which protect the individual against arbitrary power.

AAAS Civil Liberties Report (Cont. from column 1).
lows, regardless of the nature of their work, and has been largely responsible for the partial demise of this splendid program; summary suspension powers on security grounds have been given carte blanche to whole departments in Public Law 733 (81st Congress) and by the Rooney rider (to the omnibus Appropriation Act, 1951).

Third, the Loyalty Program is discussed, and improvements to existing loyalty procedures are recommended. Whereas previously existing laws protect the government from such overt acts as espionage, sabotage, and disregard of instructions, the only new element injected by the President's Loyalty Order is the dangerous doctrine of guilt by association. The recommendations emphasize the extraordinary nature of a loyalty hearing, where the burden of proof rests on the accused, but without most of the usual judicial safeguards, such as the separation of the prosecution and judicial functions and the right to cross-examine witnesses.

The Report is effectively documented with quotations from the President, Supreme Court Justices, Nobel Laureates, and prominent scientists. It is to be hoped that it will be thoroughly studied both by government officials in charge of the loyalty and security programs and by all scientists.

SECURITY, LOYALTY, AND SCIENCE, by Walter Gellhorn (Cornell University Press, Ithaca, 1950; 300 pp., \$3.00), an elaboration of the theme of the AAAS Report, has just been released. Look for a review in a subsequent Newsletter.

State Reconsiders. Dr. Bernard Peters, University of Rochester physicist, recently was granted a passport to India to conduct scientific research. Last March the State Department refused a passport to Peters because his trip was not "in the interests of the United States." The ensuing protests apparently took effect.

SHIFTING PRIORITY -- AEC

Recent Developments in AEC. The Atomic Energy Commission devoted the bulk of its 8th Semi-Annual Report (July 31, 1950) to the control of radiation hazards. The Report is designed to inform the public generally as well as to make available information useful in civil defense activities. The report further notes that the production of fissionable material proceeded at the lowest unit cost and highest output on record. Research work in basic nuclear phenomena, in biological and medical fields, and in radiation effects was expanded; construction proceeded on schedule. In connection with the hydrogen bomb, adjustments were made in various phases of the program, in close coordination with the Department of Defense and requiring substantial expansion of facilities and work projects.

Although the attention of the Commission has centered on the military uses of atomic energy, there has been some promotion of peacetime uses of atomic energy. Production and distribution of radioisotopes and stable isotopes has grown. Domestic off-project isotope shipments were three times that of the first year, and 36% higher than in the previous six months.

The Commission is concentrating its power reactor effort on development of a reactor for submarine propulsion, with the hope that this will at the same time advance progress toward stationary power reactors.

Changes in AEC Personnel. Gordon Dean, former law partner of Senator McMahon, became chairman of the AEC in July, succeeding Sumner T. Pike, who had served as Acting Chairman since the resignation of Lilienthal. Dr. T. K. Glennan, president of Case Institute of Technology, was named to the AEC to fill the post left vacant by the resignation of Lewis L. Strauss.

Carroll L. Wilson resigned as General Manager of AEC Aug. 8, stating bluntly that he had no confidence in the new chairman, Gordon Dean. He feared that the trend toward assumption by AEC of a more direct role in administration would result in a "cumbersome, slow-moving administrative machine which is incapable of giving the country the kind of direction needed to maintain and increase our leadership in the atomic field." Wilson denied he had quit in protest against a military power grab in which the armed forces took over effective A-bomb control from the civilian commission. "There has been no change in the existing good working relationship between the AEC and the armed forces," he said. Other sources interpreted the Wilson resignation as a further consolidation of control of AEC by the Joint Congressional Committee on Atomic Energy. Evidence for this trend is seen in a bill (S.3437) introduced by Senator McMahon, Committee chairman, and recently passed by the Senate, which would make the AEC General Manager a Commission appointee rather than a presidential one.

Atomic Power -- When? In an article in the June issue of Scientific Monthly. Prof. Joseph E. Loftus, until recently director of the Teaching Institute of Economics at American University in Washington, D.C., analyzes the vexed question of atomic power possibilities. Prof. Loftus warns that "If any other country especially the Soviet Union -- should more quickly develop a fullscale reactor producing electric power for all the world to see. the rewards to that country and the losses to this, measured in terms of international prestige (particularly in the politically marginal countries of Europe and Asia), might be incalculably great."

AEC Fellowships. In a letter sent Sept. 5 to officials of the regional universities cooperating with the AEC to administer its fellowship program, FAS Chairman Higinbotham said, in part:

...In the past, the National Research Council had administered these fellowships, but as a result of Congressional action requiring FBI investigation and security clearance for applicants, the NRC was directed by the National Academy of Sciences to refuse further administration of non-secret fellowships. The Nat'l Academy, supported by its council and a majority of its members, expressed the belief 'that FBI investigation of AEC fellows who work in non-classified fields and who do not have access to restricted data is unnecessary from the standpoint of the national security and unwise from the standpoint of the advance of science in the U.S.

"Knowing that the regional university groups undertook to administer these fellowships for a period of one year and that the time for renegotiation is drawing near, we strongly urge that you now give full endorsement to the stand taken by the National Academy by refusing further involvement in this program. ..."

National Science Foundation. Most scientists assumed that the battle for an NSF was over when the President signed the bill. In the exuberance of victory, the Inter-Society Committee for an NSF voted to disband (FAS voted for continuance). The Committee was hurriedly called back into action late in August when early initiation of Foundation activities was threatened by the parsimony of the House Appropriations Committee, which deleted from the Supplemental Appropriations bill for 1951 the \$475,000 requested by the President to establish the NSF. NSF was regarded by the House Committee as postponable because it would "not provide early aid to our defense effort." Efforts of Rep. Priest to squeeze out of the Committee even \$200,000 were unsuccessful. Quick response by scientists, and both Administration and press support, led to restoration of \$225,000 of the \$475,000 by the Senate Appropriations Committee. Already accepted by the House-Senate conference committee, final approval of this amount by both houses and by the President is assured.

Although it has been rumored for some time that the members of the 24-man NSF Board are already selected, the President has yet to send their names to the Senate for confirmation. It now appears unlikely that confirmation can be secured before Congress recesses or adjourns for the November elections.

The FAS has recommended to the President the name of a proven scientist-administrator for Director of NSF. This appointment, too, is held up since the President must first receive suggestions from the Board before selecting a Director.

It is clear that continuing scientist-support for NSF is needed. At best, its activities this year will be limited. Restricted funds will probably reduce the estimated staff of about 100, originally to be recruited by June 30, 1951. The agency will not be in a position to support research and training of young scientists for at least another year, except in the unlikely event that Congress is persuaded to pass a supplementary appropriation.

The scope of activities of NSF from now on will depend

largely on the Appropriations Committees of the House and Senate. An annual campaign may be necessary to wring adequate funds from these "hard-boiled" groups.

FAS Abroad. At a special meeting in Oxford September 13 - 14, representatives of the British Atomic Scientists' Association and the FAS, together with a limited number of invited participants, examined anew the problems of international control of atomic energy in light of existing conditions. As we go to press, no information as to the results achieved is available. A report is planned in the next Newsletter.

Brookhaven Plan. FAS' Brookhaven chapter recently sent \$150 to the Washington office to pay for \$5 non-member subscriptions to the Newsletter. This welcome method of supplementing FAS finances was promptly dubbed the "Brookhaven plan." Chapters and members-at-large please take note.

Membership in the FAS is open to scientists and a limited number of interested laymen concerned with the impact of science on the troubled modern world. Organization policy, determined by the annually elected Council, is carried out by the Executive Committee and a Secretariat in Washington. Non-member subscription to the FAS Newsletter is \$2.00 a year (about 10 issues). Applications for membership, or subscriptions to the Newsletter, may be sent to the Washington office.

Members of FAS who have not yet purchased their copies of MINUTES TO MIDNIGHT, are reminded to use the special-offer form recently sent to them by the FAS.

	MEMBERSHIP	APPLICATION	;	50 - 8
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Mobilization of Scientists (Continued from Page 1).

least in the direction of its own goal.

However, there are others who do not go along with Defense and NSRB in their common objective of establishing now a full mobilization program based on registration and involuntary allocation of skilled manpower. They hesitate to grant authority that may be prematurely used. Seeing the possibility of a long-drawn-out halfwar, they wonder whether acceptance of the principle of involuntary allocation, the establishment of a Service-State under conditions which can only be regarded as regimentation, is necessary or wise.

Meanwhile, Dr. Ernest H. Volwiler, retiring president of the American Chemical Society, in an address at the Society's Chicago meeting September 6, called for a 3-point policy for scientific mobilization: "(1) That key scientists in industry, in government, and in universities remain at their posts to carry through the total mobilization of our nation which is required. (2) That scientists in the armed forces be used to the highest degree in their primary fields of scientific education and training. (3) That outstanding science students be deferred by means of a quota system to complete their training before they are called into the armed forces."

Problems of scientific mobilization and utilization are now very much in the foreground. The flurry of activity about the Gurney bill illustrates how rapidly, and with how little consultation, a major policy decision might have been reached. We need to think deeply and act quickly on at least several questions: (1) What degree of scientific mobilization is now necessary? (2) Is involuntary allocation a suitable mechanism for scientific manpower mobilization? What alternatives are there? (3) In what agency or type of agency should responsibility be placed for scientific manpower mobilization? (4) Should scientific manpower be included in a possible National Service Act -- yielding something like the Scientific Corps which was considered early in the last war?

With these problems again under discussion, it is worth recalling that Irvin Stewart, in the book, "Organizing Scientific Research for War," wrote, "It is clear that to handle scientific manpower in any future war as clumsily as it was handled in World War II will be to invite national disaster."

UNESCO abstracts Science and Society. A new journal, devoted to abstracting material relating to the interaction of science and society, has been inaugurated under the auspices of the Natural Sciences Department of UNESCO. Entitled, Impact of Science on Society, the first issue contains a statement of purpose and a 20-page annotated bibliography of "historically important" literature in English. Included also are extended summaries of recent speeches by the Americans, J. R. Oppenheimer and E. W. Sinnott, and the Danes, P. Brandt-Rehberg and S. Tovborg-Jensen. Promised for future issues are summaries of speeches by scientists of other countries, and current bibliographies of pertinent literature, films and exhibits. The Editor asks for the cooperation of readers in making relevant material available. Subscriptions (\$.50 for the first year, and \$1.00 per year thereafter) should be sent to: The Editor, Impact, UNESCO, 19 Avenue Kleber, Paris 16e, France.

Civil Defense (Continued from Page 1).

atomic warfare. A public opinion poll in June 1950 indicated that almost 1/3 of our population either doesn't know what to think about atomic defense or doesn't believe any defense is possible; this in spite of the fact that 7 out of 10 expect to be bombed and 6 of the 7 have tried to figure out how to protect themselves and their families. Under conditions such as these, widespread confusion and near panic seem inevitable.

As for long-range dispersal planning, only one plan has thus far been presented to Congress -- a plan for partial federal dispersal into Maryland and Virginia by the construction of new Government buildings for key agencies in unspecified sites within commuting distance of Washington. Although not an elaborate plan, opposition on Capitol Hill on grounds of expense and lack of necessity do not augur well for future over-all planning of this sort.

In August the AEC, in cooperation with the Defense Dep't. published its first report on civilian defense. Titled "The Effects of Atomic Weapons," it is an attempt to bring the American people up-to-date on the realities of an atomic attack. Based on studies of all U.S. atomic explosions to date, it examines in detail the various effects produced when a bomb is detonated in the air, on the surface of the ground, or below water or earth. It contains practical advice on how to minimize the effect of the blast if one is caught near a target area; it describes how cities could cut casualties sharply; and offers procedures for decontamination of structures and treatment of injured personnel. Unfortunately, this monumental treatise is some 456 pages long and contains an excess of scientific terms, equations, and graphs. It will hardly attract or interest the man in the street. The report has been popularized in LIFE magazine and in a few large city newspapers, but until a popular version is brought to every city dweller either in his school. plant, or office the best civil defense plan will be threatened by widespread ignorance and lack of understanding. In sharp contrast, the British have widely distributed a brief training booklet on atomic warfare which depends almost wholly upon an easy narrative augmented with simple diagrams and which can be read and understood by anyone. Such a booklet is an immediate requirement on this side of the Atlantic as well.

From any perspective, critical or otherwise, much remains to be done in providing the U.S. with an adequate civil defense program designed both for what is immediately possible and for the longer range question of protection against atomic attack. Recommended—even mandatory—reading for those who would know more about this vital question is the special August-September issue of the Bulletin of the Atomic Scientists, entitled "Civil Defense against Atomic Attack" (available from the Bulletin, 53 West Jackson Blvd., Chicago 4, III.; \$1.00 per copy).

Also available is a series of articles by William L. Laurence on Atomic Defense in the form of a 48-page booklet (© \$.10, from: AT-7, The N.Y. TIMES, Times Square 18, New York).

SECRET, a novel by Michael Amrine (Houghton Mifflin, 3ll pp; \$3), mixes fact and fancy to make a thought-provoking and entertaining evening's reading about the hectic days when FAS was born.

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