



# SR / Research

## SCIENCE & HUMANITY



**DEPARTMENTS:** Research in America • Letters to the Science Editor • The Research Frontier • Science in Books • Personality Portrait LXXII

**ARTICLE:** Do the Mountains of Earth Come from the Moon?

## THE STRUGGLE FOR CONTROL OF DRUG PRESCRIPTIONS

ON 21 March 1958, stock listing application No. A-17508 was filed at the New York Stock Exchange. It requested the listing of 70,000 additional shares of common stock of the Chemway Corporation for the purpose of exchanging those shares for ownership of the Glutavite Corporation. The application was granted and the shares were listed that day. At the close of the day's trading, Chemway Stock was quoted at seven and five-eighths dollars per share. In short, the Chemway Corporation paid the equivalent of more than half a million dollars for the Glutavite Corporation.

After the stock changed hands, the Glutavite Corporation was absorbed by the Crookes-Barnes Division of Chemway, which deals in the manufacture and sale of prescription drugs. An influential member of the board of directors of Crookes-Barnes at the time of the transaction was Dr. Arthur Sackler, a Manhattan psychiatrist.

The sole owners of the Glutavite Corporation had been Dr. Arthur Sackler's two brothers, Drs. Mortimer and Raymond Sackler, also psychiatrists.

The principal asset of the Glutavite Corporation at the time of the stock transfer was a product called l-Glutavite. At manufacturers' sales prices, \$499,148 worth of l-Glutavite had been sold from March to December 1955, \$511,782 worth in the twelve months of 1956, \$443,668 worth in 1957, and \$87,523 worth in the first two months of 1958.

Glutavite, without the introductory "l", is mono-sodium glutamate, a harmless amino acid protein derivative which housewives buy in grocery stores as a flavoring for meats.

According to advertisements published by the Glutavite Corporation, l-Glutavite consists of "optimal amounts of mono-sodium l-glutamate plus a

therapeutic amount of the vasodilator niacin and co-enzymes and other essential elements." Broken down into ordinary layman's English, this means simply the familiar meat flavoring plus vitamin B.

The two Sackler brothers who originally owned the Glutavite Corporation—Drs. Mortimer and Raymond—had first set up Gray Pharmaceuticals to market the product in 1955. Later, they had merged Gray Pharmaceuticals into the Glutavite Corporation. They had taken their product to the U. S. Food and Drug Administration for approval. They had been told that a new drug permit would not be required as a requisite for sale of l-Glutavite because its primary ingredient, glutamate, was well established as a harmless chemical and because vitamin B complexes could be bought over drug store counters without prescription. However, it was pointed out to the two Sackler brothers that if they should advertise l-Glutavite to the public as a drug they would be accountable for any medicinal claims they might make.

l-Glutavite has not been advertised directly to the public. Although not listed as a prescription drug, it has been advertised to physicians. The *Journal of the American Medical Association* has declined to publish the ads, but the *Medical Tribune*, a para-medical newspaper, has printed them. The ads have featured charcoal sketches of senile men and women and have referred to l-Glutavite as a "metabolic cerebral tonic" for confused minds.

"Improves the cerebral metabolism," the headlines have said. Supporting phraseology has emphasized the safety of the compound in comparison to the side effects physicians sometimes encounter when they prescribe tranquilizers. Dosage has been given as "one rounded teaspoonful of powder in

tomato or other vegetable juice" three or four times a day for ten to sixteen weeks, followed by a daily regime of two packets of powder thereafter. Capsules are also available, but a capsule holds less than a packet. Curious physicians have been offered references "on request."

These l-Glutavite advertisements, strongly reminiscent of the old fashioned medicine show, were prepared by the biggest advertising agency in the prescription drug business: William Douglas McAdams, Inc., where Dr. Arthur Sackler is chairman of the board.

*Medical Tribune*, the free circulation newspaper in which l-Glutavite ads have most frequently appeared, was founded by Dr. Arthur Sackler among others and has been serviced editorially by an organization owned outright by Dr. Arthur Sackler.

THE spectacle of three psychiatrists, members of a profession looked to with almost awesome respect for guidance in mental illness, concertedly pushing a flavoring extract mixed with vitamins as a means of arresting the pitiable deterioration of aging minds, is a painful experience. But the l-Glutavite episode has a significance beyond the compass of psychiatry. It illustrates the machine-like disregard of individuality into which the once precise art of prescription drug administration has descended in America.

The combined resources of the three Sackler brothers for this type of integrated drug marketing were not exhausted in the promotion of l-Glutavite. The brothers together cover every aspect of prescription medicine. They have succeeded in carrying out their operations despite opposition within the medical profession. Whatever opposition they may have encountered within the drug industry itself has not been effective.

All modern drugs necessarily begin with pure scientific research. Dr. Arthur Sackler is director of the Laboratories for Therapeutic Research at Long Island University's Brooklyn College of Pharmacy. After research comes drug manufacture. In addition to their former holdings in the Glutavite Corporation, Drs. Mortimer and Raymond Sackler are officers in at least one other drug house, Purdue-Frederick. Once drugs have been manufactured, their special usefulness must be demonstrated to physicians. The prime avenue for this function is publication of scientific papers in medical journals. As will be noted specifically later, all three of the Sacklers hold places on the editorial boards of such journals. The journals are increasingly dependent on income from drug advertisements which follow the research reports. As was pointed out before, Dr. Arthur Sackler is head of the largest prescription drug advertising agency in the United States.

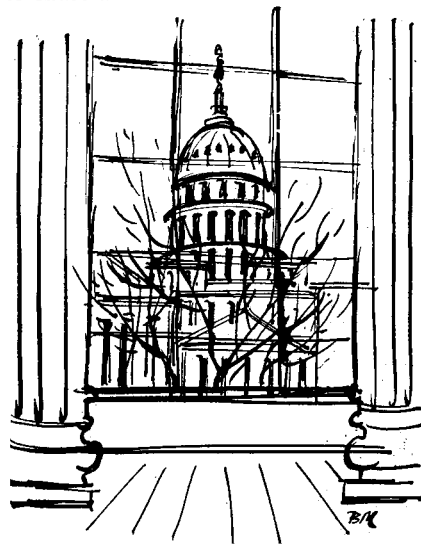
**T**HE foregoing steps are the traditional steps of medicine, familiar to generations of physicians. A dozen years ago, Dr. Arthur Sackler added to them a new step which before then would have been regarded as a violation of the most precious canon of the healing profession. Up to that time the rule had been that the intimate confidence required for a successful relationship between physician and patient was too delicate to be disturbed by outside interference. Physicians alone were responsible for safe and effective administration of drugs. They alone could prescribe treatment. Hence the decision to choose a particular drug for a particular patient at a particular time should be left strictly to the doctor.

Dr. Arthur Sackler, himself a physician, publicly insists he never intended to amend this ancient rule. He says there cannot be any question of the individual doctor's ultimate responsibility for the individual prescription. He declares it is every physician's duty to resist any and all outside influences, and he professes an unshakable belief that most doctors faithfully exercise this responsibility.

Equally firmly, however, Dr. Arthur Sackler states his conviction that before he intervened to change the situation, an anachronism existed in medical practice. It took too long for the spectacular new drugs he was advertising to win acceptance among his fellow doctors and so to reach the great body of expectant patients. He determined to "shorten the gap between discovery and use" of new drugs. "Laymen living in the scientific era . . . require a certain amount of scientific knowledge," he said, and there was an obligation to

"get this knowledge to them" through "some means of communication between pharmaceutical companies . . . and the consumer." To reach the consumer—i.e., the patient—he set up the Medical and Pharmaceutical Information Bureau in 1948, and referred McAdams advertising clients to MPIB to obtain publicity for drugs that patients and doctors might read in the newspapers at the same time that the doctors were receiving ads for these drugs through the mail. Sometimes these "news" reports of new medicines went out on the air and into print before the drugs had been approved by the U.S. Food and Drug Administration and often before there had been enough time for thorough clinical evaluation of unfortunate side effects.

Two consequences soon became apparent. One was that people in position to chase a fast buck in Wall Street used



the MPIB "news" as market tips and kited the prices of drug stocks. The second effect of the MPIB operation was that patients began to implore their physicians for prescriptions of "that marvelous drug I read about in the paper the other day." When physicians didn't respond to the pleadings, headstrong patients went to other more accommodating physicians. And while this pressure built up inside doctors' offices, the physicians were bombarded incessantly from the outside by direct mail advertisements written by McAdams for those very same drugs.

Soon it was customary for doctors to learn about new drugs from their patients or from drug ads—or even from their stock brokers—before the doctors themselves had an opportunity to read skilled professional judgment of the usefulness and safety of the drugs in medical journals which previously had been the trusted harbingers of new champions in the fight against disease.

The old sense of ethics that had long governed prescription drug houses (as

opposed to patent medicine peddlers) did not die easily. The more conservative houses shied from any direct link between their advertising to doctors and whatever might be said about their new products to the general reading public of the newspapers. To mollify the traditionalists, Dr. Arthur Sackler sold out his stock interest in and gave up his place as a director of MPIB in April 1950. But he continued to send his advertising clients to MPIB and later encouraged the establishment of separate publicity agencies similar to MPIB, such as Medimetrics and Medical and Science Communications Associates, Inc. to continue and expand the flow of "information" about new drugs to patients. Whether the drug houses were taken in by this maneuver, or merely shut their eyes to it, is not clear. Anyhow, the separate publicity agencies thrived as agents of McAdams clients, and the pressure on physicians to prescribe drugs in conformity with the fads rather than with the real needs of patients intensified.

The W. H. Frolich advertising agency, known in the past as the major competitor of McAdams in the drug ad business, suddenly fell into step with Dr. Arthur Sackler and set up a counterpart of MPIB under the name of Science Information Bureau. After Dr. Arthur Sackler withdrew his direct participation in MPIB, Frolich farmed out SIB. To say the least, the parallels did not suggest vigorous independent thought and action traditional to American free enterprise.

**W**HILE this wholesale influencing of drug prescription practice was relatively new, when Dr. Arthur Sackler was still part owner and a major director of MPIB, MPIB sent out to newspapers of 12 February 1951 the first public disclosure that Henry Welch, Ph. D, then director of the antibiotics division of the U. S. Food and Drug Administration, would edit a new journal called *Antibiotics and Chemotherapy*.

Regular readers of SR/Research will recall the name of Dr. Welch. He was forced to resign his government post in the summer of 1960 after U. S. Senator Estes Kefauver's Subcommittee on Antitrust and Monopoly had investigated the extent of a conflict of interest first pointed out in this space in February 1959. The question raised by SR was one of principle. The Senate committee looked into practice and found that while Dr. Welch was being paid an official salary for protecting the public against abuses in the marketing of drugs, he was collecting more than a quarter of a million dollars for editing privately-owned journals that argued for drug prescription practices opposed

by the most skilled clinical researchers in the country. Worse still, it was discovered, the private payments to Dr. Welch were made on a sliding scale depending on how much drug advertising the journals took in, how many reprints of clinical reports favorable to new "shotgun therapy" type drugs were ordered by the drug houses for distribution to physicians, and how many extra pages of new reports were hurried into print just before press time to fit schedules of advertising "blitzes" for the drugs.

The private payments to Dr. Welch were made by MD Publications, Inc. President of this establishment was Dr. Felix Marti-Ibanez, a Spanish refugee who at least as early as 1952 if not earlier became an employee of McAdams International, a branch of the advertising agency headed by Dr. Arthur Sackler. The transcript of Senate testimony and documents concerning the affairs of Dr. Welch includes a letter Dr. Marti-Ibanez wrote to Dr. Welch on 10 March 1954. The letter explained that Dr. Marti-Ibanez, then part owner and ostensibly chief officer of MD Publications, Inc., was "extremely hurried with the moving of McAdams International to 15 East 62nd Street, which, by the way, is a most pleasant and convenient location." The letter expressed the hope that if Dr. Welch should "have a few minutes when you come to New York at the end of the month . . . you will have time to see the new offices." The address of those new offices was listed in the Manhattan telephone directory as the address of the three Sackler brothers, Drs. Arthur, Mortimer and Raymond.

Going back now to the press release that MPIB put out in February 1951 about Dr. Welch and his coming editorship of the new journal, *Antibiotics and Chemotherapy* — what client was MPIB acting for? The release named Dr. Welch as editor-in-chief of the forthcoming journal without identifying him as a public official. Dr. Marti-Ibanez was also named as "editor of the Spanish edition" of the journal, but his association with McAdams International (or any other organization) was not specified. MD Publications, Inc. was not mentioned. No ownership of the new journal was mentioned. For whose benefit, then, was the press release written and distributed? MPIB releases always had someone's benefit in mind. Since Dr. Arthur Sackler did not relinquish direct control of MPIB until the following April, the beneficiary surely must have been someone he wanted to serve.

Could MPIB's client in this case have been the yet undisclosed person or persons who advanced the \$50,000 which

Dr. Welch in 1950 had told his U. S. Food and Drug Administration superiors would be required to start the new antibiotics journal?

Or could the client have been one or other or both of the two unidentified stockholders who Dr. Welch later said shared ownership of MD Publications, Inc., with Dr. Marti-Ibanez?

These questions recently have become of interest to the U. S. Department of Justice. Among documents now on file for public inspection in the office of the clerk of the Federal District Court in Washington, D.C., are two identical letters signed by Deputy U. S. Attorney General Byron R. White. The letters are addressed to Mr. Max M. Goldschein and Mr. Robert J. Timlin, attorneys in the criminal division of the Justice Department. The text notifies the two men of their appointment as Special Attorneys "to assist in the trial of the case or cases growing out of the transactions hereinafter mentioned . . . and in that connection . . . to file informations and to conduct . . . in any . . . judicial district where the jurisdiction thereof lies, any kind of legal proceedings, including grand jury proceedings and proceedings before committing magistrates which United States attorneys are authorized by law to conduct."

The "transactions hereinafter mentioned" are false statements and violation of the "conflict of interest . . . bribery . . . and conspiracy statutes" which "the Department is informed" have been committed "by various persons, companies, corporations and firms to the Department unknown" with intent "to deprive the United States of the honest and faithful service of its employees."

Most of the American people know nothing of these letters. However, executives of the prescription drug manufacturing houses have been advised by the "Pink Sheet," a newsletter for which they pay \$150 per year per copy, that the appointment of Messrs. Goldschein and Timlin as Special Attorneys of the Justice Department is related to the convening in Washington, D.C., of a U. S. grand jury to reopen investigation of the activities of Dr. Henry Welch.

Since it takes two or more to conspire or to execute a bribe, the grand jury obviously will have to consider the involvement and responsibility not just of the bribe-takers but of the bribe-

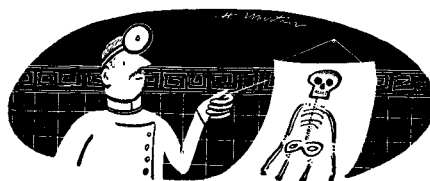
givers. According to the "Pink Sheet" issue of 22 January 1962, "a parade of Food and Drug Administration officials" already had come before the jury, and "at least sixteen pharmaceutical firms" had received subpoenas calling for delivery of "all correspondence with Dr. Felix Marti-Ibanez, individually or as an officer of . . . any . . . enterprise" and "all correspondence to, from or about Welch, as an individual, or as an FDA official" or "relating to his business relationship with . . . any . . . enterprise." The "Pink Sheet" added: "The government also asked for all memos, books and records, purchase orders, invoices and cancelled checks involving any financial or business transactions with Welch or Ibanez or with any of the . . . publishing organizations" in which these two men figured in any way.

Having the power to subpoena, the grand jury may be able to assemble a pattern for a puzzle that I have been trying for several years to fit together. Maybe the facts I have will suggest a pattern; maybe they won't. But they are facts, and I set them down here as an offering to poetic justice.

The first set of facts I have goes back to the 1930s or perhaps earlier, when military medics in Washington, D.C., anticipated what is now called "the communications crisis." They solved the immediate problem by persuading medical researchers to abstract their own reports of their own research and publish the abstracts in quarterly journals. The Washington Institute of Medicine was established as a publishing house for the quarterlies.

My second set of facts is grouped around a salesman named Dr. Henry Klaunberg, who went to work for the Washington Institute of Medicine. In time, payments of Dr. Klaunberg's sales commissions gradually fell into arrears until Dr. Klaunberg was, in fact, owner of the Institute. Subsequently, the editor of his psychiatric quarterly ran into character assassins infuriated by a book the editor wrote about alcoholic women. Prominent among defenders of the book was Mr. Joseph Borkin, an amateur disciple of Sigmund Freud and a professional lawyer on the staff of New Deal trust-buster Thurman Arnold. Later, when financial difficulties developed between the Institute and its printer, Dr. Klaunberg remembered lawyer Borkin and offered Mr. Borkin a half interest in the Institute in return for legal advice.

My third set of facts has to do with a trip Mr. Borkin made to New York City in the year 1950. His purpose was to relieve the Institute's financial difficulties by obtaining advertisements for the Institute's journals. He first visited





the BBD&O ad agency. No luck. Next he went to the Frolich ad agency. No luck. Then he called at the McAdams ad agency, and there found a fellow alumnus of New York University, Dr. Arthur Sackler. To Mr. Borkin's great delight, the doctor was not only a psychiatrist but an associate in the clinical center of the late Dr. J. H. Van Ophuijsen, one of the few then living men who had been an immediate pupil of Freud. The old enthusiasm for psychiatry flared up in Mr. Borkin, he confided the financial problem of the Washington Institute of Medicine to psychiatrist Sackler, and he returned to Washington mulling a proposition that responsibility for the psychiatric quarterly of the Institute be shifted from Washington to the Van Ophuijsen Center at 15 East 62nd Street, present-day headquarters of the three Sackler brothers.

My fourth set of facts comes from the transcript of testimony in Senator Kefauver's investigation of the drug industry. They show that, beginning in 1950, Dr. Arthur Sackler became editor-in-chief of the Washington Institute of Medicine's psychiatric journal, the *Journal of Clinical and Experimental Psychopathology*. Documents in the Senate transcript list Dr. Arthur Sackler's two brothers, Drs. Mortimer and Raymond Sackler, as members of the editorial board of that same journal. A fourth board member on the list was Mr. Joseph Borkin, and the "international editor" of the journal was Dr. Felix Marti-Ibanez.

My fifth set of facts concerns a stock transfer contract dated 11 May 1950. In it, Dr. Henry Klaunberg and Mr. Joseph Borkin each agreed to sell 150 shares of stock in the Washington Institute of Medicine to the Washington Institute of Medicine. This contract reserved to Dr. Klaunberg and Mr. Borkin the right to buy back the stock they had just sold.

At this point some facts are missing. Who was in financial control of the Washington Institute of Medicine when this stock sale went through? It couldn't have been Dr. Klaunberg and Mr. Borkin, for the contract then would simply have represented a sale of their stock to themselves. Obviously someone else had obtained a share of what originally had been fifty-fifty ownership between Dr. Klaunberg and Mr. Borkin. Who was the someone?

Mr. Borkin tells me he does not know. He says the buyers of his stock were represented by Mrs. Mary Siegel, a lawyer, and Mr. Louis Goldburt, an accountant, both of 1440 Broadway, New York City.

Whom did Mrs. Siegel and Mr. Goldburt represent in this transaction?

Again some facts seem to be missing.



My sixth set of facts has to do with Mrs. Siegel and Mr. Goldburt in other matters. I have read papers which suggest that Mrs. Siegel was legal counsel for the Sackler family in withdrawal of Dr. Arthur Sackler's financial interest in the drug publicity agency MPIB. I have seen income tax withholding forms issued by "Synergistics, Inc., c/o Siegel and Goldburt, 1440 Broadway" to persons employed at the 15 East 62nd Street headquarters of Dr. Arthur Sackler and his two brothers, Drs. Mortimer and Raymond Sackler.

My seventh set of facts concerns another stock transfer contract, this one dated 30 October 1951. In this contract, Dr. Klaunberg and Mr. Borkin agreed to assign to Dr. Felix Marti-Ibanez their right to re-purchase one third of the stock they had taken an option on the year before. The new contract specified that if Dr. Klaunberg and Mr. Borkin should subsequently exercise their stock options, each of the two would own ten percent of the Washington Institute of Medicine, and Dr. Marti-Ibanez would own ten percent.

Who owned the remaining seventy percent of the Washington Institute of Medicine?

Again a fact seems to be missing.

Whoever the owner of that seventy percent was, he wasn't willing to relinquish any of it. Dr. Marti-Ibanez' share had to come from the options of Dr. Klaunberg and Mr. Borkin. This would seem to be an important fact because, according to the contract of 30 October 1951, the assignment of the stock to Dr. Marti-Ibanez was made "in order to induce Dr. Ibanez to furnish services as general supervisor to the Washington Institute of Medicine, Inc." Note that the Washington Institute of Medicine had become a corporation.

On that same 30th day of October 1951, Dr. Marti-Ibanez signed another paper, this one as a principal for MD Publications, Inc. This paper constituted an agreement by MD Publications, Inc., to pay the Washington Institute of Medicine, Inc. (Dr. Henry

Klaunberg, president) for making up, printing, distributing, and soliciting advertising and subscriptions for "all of the medical journals and reviews owned by MD."

At this point some other facts seem to be missing.

In 1950 Dr. Henry Welch told his superiors in the U. S. Food and Drug Administration that the new antibiotic journal he was going to edit would be published by the Washington Institute of Medicine. Dr. Marti-Ibanez has published independently a statement that he arranged in 1950 to hire Dr. Welch as editor-in-chief of *Antibiotics and Chemotherapy*, which first appeared under the colophon of the Washington Institute of Medicine and was later transferred to MD Publications, Inc. Dr. Marti-Ibanez did not sign the contract to assume general supervision of the Washington Institute of Medicine until 30 October 1951. On whose authority did he make the arrangement with Dr. Welch the year before?

This would seem to be a very important fact because the arrangement with Dr. Welch provided for the peculiar sliding scale fee already described here. The agreement is reported to have been oral, but it was kept as faithfully as though it had been a written contract. Surely there had to be more than token authority behind the transaction of it. On whose say-so was Dr. Marti-Ibanez acting?

That it was a powerful say-so is further indicated by the fact that Dr. Marti-Ibanez and Dr. Welch later went into partnership in Medical Encyclopedia, Inc., to publish the proceedings of symposia arranged under U. S. government aegis through Dr. Welch's official influence.

The last fact that seems to be missing is the reason why Dr. Marti-Ibanez, as a principal of MD Publications, Inc., fixed the sum he did fix as payment for the services of the Washington Institute of Medicine, Inc. "Up to \$3500 per issue of each journal," the agreement of 30 October 1951 said. Each journal came out once a month, and there were ten journals. To whom was Dr. Marti-Ibanez willing to pay up to \$420,000 a year? Dr. Marti-Ibanez' own income came from MD Publications, Inc., and it varied with the prosperity of the company (\$25,000 in 1956, \$18,749.94 in 1957, \$60,000 in 1958, \$78,334.74 in 1959); the commitment to the Washington Institute of Medicine, Inc., constituted a lien against all income of MD Publications, Inc., and could have affected Dr. Marti-Ibanez' income considerably. To whom was Dr. Marti-Ibanez willing to grant deference of such magnitude?

To the person or persons who owned the seventy percent of Washington In-

stitute of Medicine Inc. stock that isn't accounted for in my puzzle?

To the same person or persons who sent Mrs. Siegel and Mr. Goldburt to buy the Washington Institute of Medicine stock of Dr. Klaunberg and Mr. Borkin after Mr. Borkin talked to Dr. Arthur Sackler in New York?

I have now set down all the facts that I have, and I have pointed out all the facts that seem to be missing. If the pieces of my unfinished puzzle are of any use to the grand jury, there they are. Special Attorneys Goldschein and Timlin undoubtedly have many more facts, and will, I trust, act on them vigorously. A sharp reminder that dishonesty has consequences might restore some balance to the struggle for control of drug prescriptions.

Unfortunately, it is too late to repair the health of those individual patients whose doctors were misled by the authoritative voice of Dr. Henry Welch speaking at the behest of his private employers.

It seems appropriate, in this connection, to review the history of the Pfizer antibiotic, Sigmamycin (Signemycin in one variety), that led me to learn of Dr. Welch's dual job-holding three years ago. This drug was advertised with what appeared to be reproductions of the professional cards of eight physicians who seemed to be endorsing the medicine. None of those physicians existed. Pfizer president John McKeen later told me the ad had been written at McAdams, the ad agency headed by Dr. Arthur Sackler, before Pfizer withdrew its account from McAdams. Clinical citations on the ad all referred to reports in journals edited by Dr. Welch with Dr. Mortimer Sackler on the editorial board.

Sigmamycin was not certified for marketing by the U. S. Food and Drug Administration until 28 September 1956. Yet in the summer of 1956 a medical student-copywriter who had recently moved over from McAdams International to its client, Pfizer International, was given a draft of a speech which Dr. Welch would deliver in the following October proclaiming the medicinal qualities of Sigmamycin. Into this speech the copywright injected a Pfizer slogan, which named Sigmamycin as the herald of a "third era" in antibiotic therapy. The amendment was accepted by Dr. Welch, and he read it publicly as though it had been his

own idea. Pfizer bought hundreds of thousands of reprints of the speech and mailed them to physicians along with advertisements for the drug. Sigmamycin sales boomed.

Two years later, SR published the misleading ads for Sigmamycin and antibiotics experts' criticism of the drug. Four years later, Dr. Welch quit office under fire. Five years later, on 20 November 1961, Pfizer mailed to physicians a warning that the drug was causing jaundice and damage to the liver and should be prescribed only under close supervision.

Were this an isolated example of too much hurry in the crusade Dr. Arthur Sackler initiated a dozen years ago to close the gap between discovery and use of new drugs, it alone would be deplorable. Many similar instances involving the McAdams agency, the Frolich agency, MPIB, SIB, MSCAI and others were entered a month ago in the transcript of the closing days of Senator Kefauver's two and a half year long drug inquiry.

That transcript ought to become a best seller in the journalism schools. Every conscientious newspaperman, radio and TV commentator, every science writer of any sort, has an obligation to read the testimony, study the supporting documents, and thus prepare himself to find the few straws of truth in the torrent of drug propaganda that pours over editorial desks everywhere—canned editorials, picture mats with captions written to make trade names of drugs sound like the common names of drugs, "outlines" and "drafts" of articles, "backgrounders for your confidential use," "help" for free lance magazine writers who "want to check their facts," interviews conducted by publicity men and handed in to city desks in the guise of objective pieces of reporting, even samples of new prescription drugs with publicity men's advice on dosage: a clear violation of medical ethics.

As science steadily changes the environment on which man depends, the integrity of information and the channels of its communication grows more and more imperative. In the marketplace, the buyer must always beware. But the new drug law that is coming up in Congress ought to draw some lines around what we must beware of.

—JOHN LEAR,  
Science Editor

## LETTERS TO THE SCIENCE EDITOR

### THE BUSINESS OF GIVING

IN YOUR EDITORIAL "More About the Business of Giving" in the Saturday Review of January 6, 1962, you mentioned that on December 15, "the board of directors of the National Health Council—trade association of seventy national health and welfare agencies—voted to approve a standard set of accounting principles and procedures as a guide for future disclosures of income and expenditure of all its members. These standards had been talked about for five years, but on one excuse and another they had been put aside."

There is no word as to whether the standards approved by the National Health Council would meet the full disclosure requirements promulgated to the profession, not only by the American Institute of Certified Public Accountants but by the various State Boards of Accountancy.

Just five years ago the Social Service Commission of the City of Los Angeles put into operation a statement of accounting principles for use by charitable agencies in reporting the results of their fund-raising drives. These principles were devised by the Los Angeles Chapter of the California Society of Certified Public Accountants and officially approved by the Social Service Commission. For five years we have been using these as a guide in reporting to the public the receipts and expenditures of the agencies.

EVELYN SPAULDING,  
General Manager,  
Dept. of Social Service,  
City of Los Angeles.

EDITOR'S NOTE: Mr. F. Edward Tomaso, chairman of the American Institute of Certified Public Accountants' national committee of auditing procedures for non-profit organizations, confirms reader Spaulding's belief that the National Health Council did not seek his committee's advice on the Council's new accounting standards for voluntary health and welfare agencies.

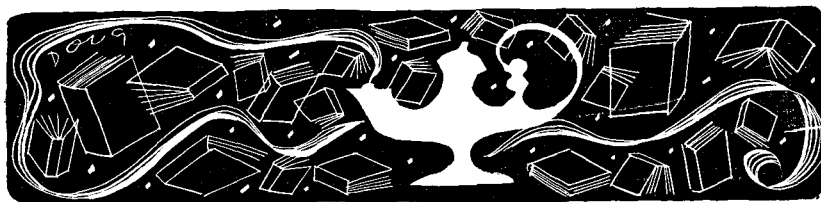
Mr. Tomaso says, however, that the Institute itself is working on a guide for auditors who are called upon to approve the books of the agencies. A draft will be submitted to the Institute for approval in June 1962 and, hopefully, will be published by the end of October.

The American Institute of Certified Public Accountants has also conferred a research grant on Dr. Emerson Henke, of Baylor University, who will survey and report publicly on voluntary health and welfare agency accounting of the agencies' use of gifts from the public.

YOUR TWO ARTICLES ON "GIVING" were quite interesting. Whether by intention or not, you seem to be consistently reminding the nation that it does sometimes matter how a buck is made. I hope your questions about the "giving" industry will have the same eventual result as your questions about the drug industry a few months ago.

ROGER REGER

Plymouth, Michigan



# THE RESEARCH FRONTIER



—NSF

**WHERE IS SCIENCE TAKING US?** *Into a new environment outside earth's atmosphere, and, en route, through terrestrial extremes of heat and cold by way of preparation. The choicest test ground on the planet is the land and water surrounding the southern pole. Many scientific studies of Antarctica took place during the International Geophysical Year of 1957-58, but they were splinter operations, seldom with any planned relation to each other or to the brooding mystery of the coldest and driest spot accessible to man. Recently the National Academy of Sciences issued a special report on Antarctic research, focussed on the need for inter-disciplinary exploration and experiment. The National Science Foundation responded by working up a separate program of Antarctic science. Chief Scientist for the program is Dr. Albert P. Crary, the first human to set foot at both the north and south poles.*

**By ALBERT P. CRARY**  
*NSF Chief Scientist for the Antarctic*

**T**HE Antarctic Ocean is a unique frontier in the present stage of man's endless search for knowledge. No other body of water on earth extends around the whole circumference of the planet. This ocean provides the only communication among the other great waters which together cover almost three-fourths of the globe: the Atlantic, the Pacific, and the Indian Oceans, and here the ocean tides develop and spread northward. Because of its peculiar position, the Antarctic Ocean influences the climate of every land known to man. Although these waters are a formidable barrier isolating Antarctica from lands to the north, flora and fauna have developed and thrived on Antarctica and must either have crossed by some unknown means or developed independently on the now ice-covered continent.

The first systematic exploration of this mysterious area will begin next month. A floating laboratory financed by the National Science Foundation will carry a civilian crew of forty-seven and a working force of thirty-two scientists and technicians from a dozen United States universities and government agencies on a sawtooth course from the southern tip of South America to wherever it may be that the ice becomes too thick to penetrate, then westward across the front of the ice for 125 miles and north again in a cruise of six weeks duration. After a short stop for rest and re-supply, the ship will sail west 125 miles, run south to the ice margin, cross the front of the ice for 125 miles, and return north for another rest period. This is a research expedition, however, and operational planning along a set pattern will not preclude unscheduled stops or special attention to follow up interesting discoveries and developments as they occur.

On each trip south and each trip north, special attention will be paid to the Antarctic Convergence, where the cold water from the south sinks under the warmer waters of the subtropical oceans. This turbulent boundary completely surrounds the Antarctic land mass, north of the outermost fringe of the pack ice, which covers 3,000,000 square miles of water around the Convergence and Antarctica proper. Always found somewhere between the 50th and 60th parallels, the Convergence moves back and forth from one season of the year to another, moving north as the ice breaks up and melts in the spring and moving south for the winter freeze-up. In times past, when the continental ice increased or diminished, so must the Convergence location have changed. These ancient locations will be sought from evidence left in sediments on the ocean floor.

The Russians have concentrated their oceanographic research of the Antarctic waters in the southern Indian Ocean with their famous oceanographic vessel *Ob*. They have re-

ported a zone 120 miles wide rich in fish and supporting sea-life. They netted several thousand fishes, identifying seventy-five species of fifteen families. Among their catch, they have said, were some rare specimens with "white" blood.

The Russian work suggests the enormous possibilities of this constantly overturning water. Answers to some fascinating questions are hidden there.

How do the fish manage to survive such a cold environment? Do they possess a more efficient method of converting energy into growth? If so, can we learn what the mechanism is, how it works? What do the Antarctic fish feed on, and how is the supply distributed? Is there a fish fauna that lives under the ice immediately surrounding the Antarctic continent?

We have found some Antarctic antibiotics in the digestive tracts of penguins and other birds, and have related these to properties of the plankton upon which they feed. How extensive are these organisms? Do they differ in any important respects from the antibiotics of gentler climates?

Seventeen species of sea birds are known to breed in Antarctica. At least one species appears to be guided in its travels by a built-in radar. Others have glands in their noses that can extract salt ten times as efficiently from sea water as the same task is performed by the kidneys. Are there, perhaps, even more marvelous devices that evolution has installed without our knowledge? Is there, for example, something special about the feather structure of these birds that keeps them warm in the coldest and driest air on the planet?

Our American research vessel for the Antarctic, the *Eltanin*, cannot match the elaborate equipment aboard the *Ob*. But the \$1,500,000 NSF appropriated to convert the *Eltanin* (named after a navigational star of the constellation Draco in the far northern sky, a fitting recognition of her original 1957 assignment to supply remote radar stations in the Arctic) has been profitably spent. The ship is not designed to ram heavy ice, but it has been strengthened to withstand all but the heaviest pack ice. She is 688 feet long, with a full load displacement of 3,886 tons. Dr. Alan T. Waterman, NSF's director, has rightly described her as "a full Antarctic research station, afloat." Where her cargo holds once were, there are now laboratories of marine biology, meteorology, upper atmosphere physics, and hydrology—all located conveniently to the living cabins of the scientists, whose comfort afloat will be somewhat enhanced by stabilizing tanks designed to minimize the *Eltanin's* roll.

Winches are installed on deck to lower coring instruments that will bring up samples of the floor of the sea. Other winches will suspend bottles and thermometers to