Straitjacket

"Few would disagree about the necessity for reform in our security system." It was thus that we began our comments on the proposals of the President's Commission on Security last summer [Science 126, 149 (26 July 1957)], and the statement still holds: no action has been taken, no reforms instituted. The issues of security and secrecy have, however, been kept alive by the House Subcommittee on Government Information, which has held several hearings to gather testimony from scientists as well as from present and former Government administrators about barriers to the flow of scientific knowledge. A convenient summary of the hearings and the recommendations of the subcommittee has recently been published under the title "Availability of Information from Federal Departments and Agencies (Scientific Information and National Defense)."

From this report it is clear that the scientists who testified were in agreement on all major points. They were unanimous in condemning multiple clearance as wasteful and ineffective. Each of the Armed Services as well as the Atomic Energy Commission has its own criteria for clearance, and someone who has been cleared by one agency cannot communicate readily with someone who has been cleared by another agency unless he gets clearance from the second agency. The demand for multiple clearance obviously delays the exchange of information between laboratories; it discourages, when it does not completely inhibit, the free discussion of ideas, which scientists generally consider to be an important stimulus to scientific advance; it leads inevitably to duplication of research, for people in one agency may not know what has been done in another.

Another inhibition to the exchange of scientific information is the practice, which is a matter of custom rather than law, subsumed under the rubric "need-to-know." Even a person with appropriate clearance must show a "need-to-know" about the results discovered in another project before he will be given those results. The scientists pointed out that it is difficult for anyone to show a "need-to-know" when he does not know precisely what it is that he might need to know.

The scientists who testified agreed that secrecy was justified in research about weapon applications, but not in basic research. In support of the latter position, they emphasized that nature can answer questions put in any language and that the laws of nature cannot be kept secret: these laws can be discovered in one country as readily as in another. Secrecy in this realm is, they thought, self-defeating.

Although the subcommittee has dealt with other questions, among them the problems of classification and declassification of documents, it has confined its recommendations to the matters discussed above. It recommends the establishment of a system of uniform security clearance, the abolition of the "need-to-know" criterion for scientists who have been cleared, and the cessation of attempts to "hide discoveries of the basic laws of nature made in the past, present, or future."

These are sensible recommendations. If they could be translated into law, science in the Government would be freed from what the subcommittee calls the "straitjacket of excessive secrecy."—G. DuS.
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Letters

Mendeliana

I should like to comment on the news paragraph headed “Mendeliana” [Science 127, 77 (1958)]. The facts are that the monastery in Brno, Czechoslovakia, where Mendel lived and where the museum was, got a direct hit in the Allied bombing in 1945 and a good many Mendeliana were destroyed. However, when I visited Brno in 1947, they were rebuilding the monastery and had a temporary exhibition of Mendeliana. The implication that the Czechs were not interested in preserving records of Mendel is quite false, even though in 1947 (not now) Mendel-Morganism was definitely frowned upon.

When I was in Brno I was on my own and was fortunate in finding an English-speaking curator at the folk museum who took me to the Mendel museum. I quote what I actually wrote in my diary at the time: “An Augustinian monk who spoke no English met us and shewed us round. I was terribly disappointed to find that Mendel’s experimental plot was now a rather unkempt flower garden, with a monument commemorating his birth centenary, 1822–1922 (inscribed in English as well as other languages). The priest shewed us some beans growing on a rubbish dump which he said were direct descendents of Mendel’s beans! ... I was intrigued [in the museum] by Mendel’s bed (he died on his settee while sitting up)—a lovely walnut one, with side pieces like Norwegian beds. Hank [the folk museum curator] had never seen a bed with side pieces before. It did not look the kind of hard bed you would expect of a monk. He [Mendel] was not a very good plant presser® (this referred to the very poorly pressed herbarium of Mendel’s which was on display with, so far as I can remember now—I haven’t recorded it—some magnifying lens or simple microscope).

It is 11 years already since I was there; the whole of Brno still had a very bombed look, and I do not think Mendeliana were any more neglected than anything else at that time. It must be remembered that Brno was a very German town and was going through a difficult period. Another English biologist, who visited Brno in 1954, tells me that when she went, she found the monastery now closed (I believe that there were only eight monks when I was there) and the Mendeliana housed in a special museum. I hope that someone from the University of Illinois will find the opportunity to make contact with whosoever is in charge of the Mendel Museum in Brno.

Amicia M. Young

London, England

Sex Determination

A recent paper by M. J. Gordon [Proc. Natl. Acad. Sci. U.S. 43, 913 (1957)], mentioned in “News of Science” [Science 126, 1059 (1957)] puts forward a claim of success in separating the two kinds of sperm, reporting data for 31 litters of rabbits. These data contain a peculiar heterogeneity which should be noticed. In all cases, sexing involved examination of the gonads; for the last 13 litters the accessory organs also were examined. The results for these last 13 litters differ from the first 18, with respect to the difference between sex ratios when males were expected and when females were expected, being statistically significant beyond the level of 1 in 1000. Among the last 13 litters there is obviously no significant effect of electrophoresis, the sex ratios being 17 males to 22 females when males were expected and 16 males to 29 females when females were expected (nor is this changed by excluding the three litters for which “incorrect technique was suspected. . .”).

No explanation of this difference which is compatible with all the reported circumstances suggests itself. For the time being, therefore, three possibilities appear equally admissible: (i) electrophoresis is ineffective, but accidents of sampling or unknown factors produced a strong appearance of effect in the first 18 litters; (ii) electrophoresis is effective, but accidents of sampling almost totally obscured the effect in the last 13 litters; or (iii) electrophoresis is effective in some circumstances not yet defined. Obviously it is premature to select one of these three rather than another.

Any a posteriori analysis of data will raise in some minds the question of whether the tests of significance performed, and, more important, those reported, were suggested by the data themselves and, hence, whether the significance levels are misleading. My approach was really a priori in that I sought heterogeneity at each change of technique, and I mention in passing that changing after 8 litters to “blind” sexing for the next 10 litters did not alter the difference observed between the two sex ratios.

H. W. Norton

College of Agriculture,
University of Illinois, Urbana

Founder of Hydrographic Office

It is not correct to state, as Hugh Odishaw does [Science 127, 124 (1958)] that Matthew F. Maury was “the founder of the U.S. Navy Hydrographic Office.” Strictly speaking, the Hydrographic Office was established by Act of Congress of 21 June 1866 (14 Stat. L. 69), and its
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By Ernest Gardner, M.D., Professor of Anatomy, Wayne State University College of Medicine, Detroit, Michigan. 368 pages, 5¼" x 8¼", with 154 illustrations. $7.75.

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first head was Commander T. S. Fillebrown, U.S.N. Maury had left the Federal for the Confederate Navy in 1861, before the creation of the Bureau of Navigation, whose founder, Rear Admiral Charles H. Davis, U.S.N., was probably the instigator of the movement for a Hydrographic Office.

In a wider sense, the Hydrographic Office started in 1830 with the establishment of the Navy's Depot of Charts and Instruments, since the depot was split in 1866 into the Hydrographic Office and the Naval Observatory. It is not correct to speak of Maury as "the founder of the Naval Depot of Charts," as do A. Joseph Waight and Captain Elliott B. Roberts of the U.S. Coast and Geodetic Survey. [The Coast and Geodetic Survey 1807–1957 (U.S. Government Printing Office, Washington, D.C., 1957), p. 22]. The depot's founder and first head was Lieutenant Louis M. Goldsborough, U.S.N. His successors (all of the same rank) were Charles Wilkes, James M. Gilliss, and Matthew F. Maury. Upon Maury's departure in 1861, he was succeeded by Gilliss.

Maury was unquestionably the best known as head of the depot, and these remarks are intended not to deprecate his deservedly outstanding reputation but to correct recent mistakes in the historical record, mistakes whose currency might lead to the distortion of accomplishments too noteworthy to need enlargement.

Harold L. Burstin
London, England

As authors of The Coast and Geodetic Survey, 1807–1957, we are glad to acknowledge the factual accuracy of the statements made in Harold L. Burstin's letter. We would like to point out, however, that our publication is a brief review, intended to convey general ideas without pretentions of definitive accuracy. The reference to M. F. Maury was based upon the officially recognized facts that he was the first officer of the Depot of Charts and Instruments to engage in the scientific study of physical oceanography, including winds, weather, and currents, and the first to engage the collaboration of ship masters in assembling data important in navigation. He, in fact, fathered the basic ideas upon which the U.S. Navy Hydrographic Office was developed. Our statement, therefore, seems to us correct in its significance though not literally true.

A. J. Waight
E. B. Roberts
U.S. Coast and Geodetic Survey,
Washington, D.C.

Meetings
Geochronal Society

The Geochronal Society was organized at a meeting in New Orleans in November 1955, for the purpose, as stated in its constitution, of "encouraging the application of chemistry to the solution of geological and cosmological problems." Its membership is international, at the present time including more than 1500 members from 50 different countries. Membership is open to anyone who will subscribe to the purpose of the society and who has either (i) training equivalent to at least a bachelor's degree in physical science, biological science, mathematics, or engineering or (ii) three years' experience in any one of these disciplines. The membership roll includes, besides geochemists, representatives from a wide variety of fields, ranging from astrophysics to ceramics, oceanography, and paleontology.

Annual meetings are held, whenever practicable, at the same time and place as the meetings of the Geological Society of America. Additional meetings, in the United States or elsewhere, may be called by the council of the society. For example, the society held a joint session with the Commission on Geochemistry of the International Union of Pure and Applied Chemistry, in Paris, in July 1957.

The Geochronal Society is affiliated with many scientific organizations throughout the world; its most recent affiliation is with the American Association for the Advancement of Science. It is a member of the American Geological Institute and of the Division of Chemistry and Chemical Technology and the Division of Earth Sciences of the National Research Council.

The official publication of the society is Geochemistry et Cosmochimica Acta, published by the Pergamon Press; members of the society are eligible to receive this journal at the special price of $10.00 per year. A newsletter, Geochemical News, is published bimonthly by the society.

A current project of the society is the translation of the Russian journal Geoikhimija, an undertaking to be subsidized by a grant from the National Science Foundation. If this project is successful, translations of other Russian journals and books on geochemistry will be undertaken. Other current activities include efforts to improve and broaden education in geochemistry and to encourage geochemical investigations through a research committee. The society hopes ultimately to be able to further geochemical research by awards and grants-in-aid and to set up standards for analytical work on geochemical problems.

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International Botanical Congress

The ninth International Botanical Congress will be held in Montreal, Canada, from 19 to 29 August 1959 at McGill University and the University of Montreal. The program will include papers and symposia related to all branches of pure and applied botany. The 10-day meeting will be one of the biggest scientific gatherings ever to take place in Canada. Some 4000 participants are expected from all parts of the world.

W. P. Thompson, president of the University of Saskatchewan, has been named president of the congress. Thompson is internationally known for his work on the genetics of cereals, especially wheat. For information write to the secretary-general, Dr. C. Frankton, IX International Botanical Congress, Science Service Building, Ottawa, Ontario, Canada.

American College of Angiology

The American College of Angiology will hold its fourth annual meeting, 21-22 June, at the Fairmont Hotel, San Francisco, Calif. The meeting will consist of four sessions devoted to cardiovascular surgery, cardiovascular medicine, cerebrovascular disease, and experimental angiology. The cochairs are Alvin Bakst, Brooklyn, N.Y.; J. Earle Estes, Mayo Clinic, Rochester, Minn.; George F. Fulton, San Francisco, Calif.; and Paul S. Lowenstein, St. Louis, Mo. For information, communicate with Dr. Alfred Halpern, Executive Secretary, 15 E. 62 St., New York 21, N.Y.

International Radiation Congress

An International Congress of Radiation Research will be held at the University of Vermont, Burlington, 10-16 August, under the joint sponsorship of the National Academy of Sciences-National Research Council and the Radiation Research Society in cooperation with the European Committee on Radiobiology. The congress is being organized in order to provide an international forum for an interdisciplinary attack on the broad area of radiation research.

Under the chairmanship of the congress president, Alexander Hollaender of Oak Ridge National Laboratory, the organizing committee has scheduled the
following symposia: 12 Aug., “Role of oxygen and peroxides in radiation chemistry: Analysis and correlation of various radiobiological actions on the same cell species (yeast)”; 13 Aug., “Free radicals produced by irradiation”; 14 Aug., “Late effects of irradiation in mammals”; 15 Aug., “Induced changes in deoxyribonucleic acid and in chromosome structure.” In addition, plenary sessions have been planned on the progress and status of radiation research, and ample opportunity will be given those who wish to present contributed papers in the broad area of radiation research. Information concerning the presentation of papers, registration, and housing may be obtained from Dr. Harvey M. Patt, Secretary General, International Congress of Radiation Research, Argonne National Laboratory, Post Office Box 299, Lemont, Ill.

Society Elections


Sigma Delta Epsilon: pres., and representative to the AAAS Council, Mary Louise Robbins, George Washington Medical School, Washington, D.C.; sec., Helen Borton Parker, 7 Lloyd Road, Malvern, Pa.; treas., Teresa Cohen, Pennsylvania State University. The vice presidents are Esther S. Anderson, Department of Geography, University of Nebraska, and Ethaline Cortelyou, Armour Research Foundation, Chicago, Ill. The representative to the AAAS Council is Irene Corey Diller, Institute for Cancer Research, Philadelphia, Pa.

American Sociological Society: pres., Robin M. Williams, Jr., Department of Sociology and Anthropology, Cornell University; v. pres., Robert E. L. Faris, Department of Sociology, University of Washington; pres.-elect, Kingsley Davis, University of California; past pres., Robert K. Merton, Department of Sociology, Columbia University; sec., William J. Warner, Department of Sociology, New York University, N.Y.

Forthcoming Events

June
2–5. American Nuclear Soc., 4th annual, Los Angeles, Calif. (ANS, P.O. Box 963, Oak Ridge, Tenn.)
2–6. Medical Library Assoc., 57th annual, Rochester, Minn. (T. E. Keys, Librarian, Mayo Clinic, Rochester.)
2–7. Industrial Microbiological Inst., 11th annual, Lafayette, Ind. (C. L. Porter, Stanley Croulter Hall, Purdue Univ., Lafayette.)
5. Institute of Microbiology, 4th annual, New Brunswick, N.J. (E. R. Isaacs, Inst. of Microbiology, Rutgers Univ., New Brunswick.)
9–11. American Assoc. of Spectrographers, 9th annual symp., Chicago, Ill. (H. J. Hettel, Armour Research Foundation, 10 W. 35 St., Chicago 16.)
9–11. Canadian Federation of Biological Societies, 1st annual; with Canadian Assoc. of Anatomists, Canadian Biochemical Soc., Canadian Physiological Soc., and Pharmacological Soc. of Canada; Kingston, Ontario. (E. H. Benley, Montreal General Hospital, 1650 Cedar Ave., Montreal 25, F.Q.)
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Microscopy Symposium, 5th, Chicago, Ill. (W. C. McCrone, Jr., 500 E. 33 St., Chicago 16.)


Astronomical Soc. of the Pacific Annual, Los Angeles, Calif. (S. Einarsson, Leuschner Observatory, Univ. of California, Berkeley 4.)

Vacuum Techniques, 1st internatl. congress, Namur, Belgium. (E. Thomas, c/o CSN/ERM, 30, avenue de la Renaissance, Brussels 4, Belgium.)


National Soc. of Professional Engineers, St. Louis, Mo. (P. H. Robbins, NSPE, 2029 K St., NW, Washington, D.C.)

American Soc. of Medical Technologists, annual, Milwaukee, Wis. (Miss R. Matthael, Suite 25, Hermann Professional Bldg., Houston 25, Tex.)

American Soc. of Mechanical Engineers, semiannual, Detroit, Mich. (O. B. Schier, II, ASME, 29 W. 39 St., New York 18.)


American Physical Therapy Assoc., annual, Seattle, Wash. (Miss M. E. Haskell, APTA, 1790 Broadway, New York 19.)

Neurological Assoc., 83rd annual, Atlantic City, N.J. (C. Rupp, 133 S. 36 St., Philadelphia 4, Pa.)


Photochemical Apparatus Symp., Upton, N.Y. (R. C. Fuller, Biology Dept., Brookhaven National Laboratory, Upton, L.I.)

American Soc. for Engineering Education, annual, Berkeley, Calif. (W. L. Collins, Univ. of Illinois, Urbana.)

Association of Official Seed Analysts, annual, Montreal, Quebec, Canada. (L. G. Shenberger, Seed Lab., Dept. of Agricultural Chemistry, Purdue Univ., Lafayette, Ind.)

Molecular Structure and Spectroscopy Symp., Columbus, Ohio. (R. A. Oetjen, Dept. of Physics and Astronomy, Ohio State Univ., Columbus 10.)

Pacific Div., AAAS, annual, Logan, Utah. (R. C. Miller, California Acad. of Sciences, Golden Gate Park, San Francisco 18.)


Statistical Methods in Radio Wave Propagation, intern. symp., Los Angeles, Calif. (W. C. Hoffman, 5116 Engineering Bldg., Univ. of California, Los Angeles 24.)
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18–21. College Physicists, 20th annual colloquium, Iowa City, Iowa. (J. A. Van Allen, Dept. of Physics, State Univ. of Iowa, Iowa City.)

18–22. American College of Chest Physicians, annual, San Francisco, Calif. (M. Kornfeld, ACCP, 112 E. Chestnut St., Chicago 11, Ill.)


19–21. Society of Nuclear Medicine, 5th annual, Los Angeles, Calif. (R. W. Lackey, 452 Metropolitan Bldg., Denver, Colo.)


23–24. Unstable Chemical Species Symp., Los Angeles, Calif. (Directorate of Advanced Studies, Air Force Office of Scientific Research, P. O. Box 2035-D, Pasadena, Calif.)


23–25. American Soc. of Refrigerating Engineers, annual, Minneapolis, Minn. (R. C. Cross, ASRE, 234 Fifth Ave., New York 1.)

23–27. American Soc. of Civil Engineers, Portland, Ore. (W. H. Wisely, ASCE, 33 W. 39 St., New York 18.)

23–28. Low Temperature Physics, 6th international conf., Leiden, Netherlands. (J. van den Handel, Kamerlingh Onnes Laboratory, Leiden.)


25–28. American Assoc. of Physics Teachers, Boulder, Colo. (F. Verbrugge, School of Physics, Univ. of Minnesota, Minneapolis.)


29–4. National Education Assoc., Cleveland, Ohio. (W. G. Carr, NEA, 1201 16 St., NW, Washington 6.)

(See issue of 18 April for comprehensive list)
Equipment

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Science does not assume responsibility for the accuracy of the information. A coupon for use in making inquiries concerning the items listed appears on page 1078.

**FLASH-POINT INDICATOR** for the range 80° to 180°F is automatic in operation. Results do not vary more than ±2°F from those obtained manually. Repeatability is within ±1°F. Test time is 2 to 4 min. (Precision Scientific Co., Dept. 20)

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**DOUBLE-BEAM POLARIZER** for the manufacturer's H-800 infrared spectrophotometer uses selenium films in transmission, which act as plane polarizers when the incident beam is inclined at the Brewster angle. Efficiency of the polarizer varies with wavelength but is always better than 96 percent. (Hilger and Watts Ltd., Dept. 32)

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**CRYSTAL FILTERS** provide four bandwidths at center frequency of 10.7 Mcy/sec. Bandwidths for 6 db are 30, 15, 6 and 3.5 kcy/sec. Specifications include shape factor of 2 to 1, insertion loss approximately 1 db, and size 2¾ by 1 by 1 3/32 in. (Hycon Eastern, Inc., Dept. 19)

**OSCILLOSCOPE** camera operates at a rate of one frame per second. Film size is 35 mm with capacity of 60 exposures in one loading. The instrument uses a 25-mm f1.9 lens or a 40 mm f1.5 lens. Resolution up to 90 lines/min is achieved. (OPTOmechanisms Inc., Dept. 22)

**CONSTANT-CURRENT POWER SUPPLY** switches over automatically to constant-voltage operation when the output voltage reaches a preselected value as a result of build-up of load resistance. Output current is adjustable from 0 to 20 amp, output voltage from 0 to 100 v. (Matthew Laboratories, Dept. 23)

**SHEET-METAL LAYOUT MACHINE** permits rapid placement of holes in chassis fabrication. Positioning of the drill-head, accomplished by means of crank-operated counters on x- and y-axes, is accurate to 0.002 in. in 18 in. A foot-operated switch actuates the drilling of pilot holes. (OPTOmechanisms Inc., Dept. 25)

**CHROMATOGRAPHY CABINET** contains four solvent assemblies accommodating 8 sheets of 18½ by 22½-in. paper. The cabinet is Formica-lined, insulated with glass wool, and provided with a triple-pane window for observation. (Research Specialties Co., Dept. 28)

**HYGROTHERMOGRAP** operates over the relative-humidity range 15 to 95 percent at temperatures from 32° to 130°F. Humidity measurements are repeatable within ±3 percent RH. Temperature
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