CUT IT OUT!

FOR ANY TYPE OF GRADIENT — that is all you have to do when you program the LKB ULTROGRAD® gradient mixer. A pair of scissors is all you need to cut the gradient profile for exactly the type of gradient you require. Our technician has just cut three, and he now indicates that he will use the one in the scanning window. When he has set the scanning rate and the duration of the run, he will switch on and the ULTROGRAD will take over—automatically producing the gradient. He can program any type of gradient you like to name, from as many as three liquids at once. With an optional level sensor, you can also monitor absorbance levels in an eluate and automatically vary the gradient, to provide greater separation of eluted components.
Spencer
THE PHYSICS AND CHEMISTRY OF DNA AND RNA

With minimal reference to biologic function, and maximum attention to areas of current and potential research interest to chemists and physicists, Dr. Spencer examines the nucleic acids as macromolecules considers their physico-chemical properties discusses the macromolecular phenomena they exhibit details the physico-chemical methodology used in their study. Synthetic polynucleotides are also discussed. In delving into current research on nucleic acids, Dr. Spencer considers the resultant findings and speculates on future findings and applications.


Barbosa & Peters
READINGS IN ENTOMOLOGY

Between the covers of this book are some of the most influential, revealing articles on the study of insects written within the last twenty years. There are concise, lucid discussions in such current interest areas as ecology, behavior, and economic entomology as well as highly informative selections on such classical topics as morphology, physiology, and taxonomy. This invaluable set of readings gives a systematic look into entomology, demonstrates the number and diversity of its subdisciplines, and fully shows it as an area of dynamic exploration.

By Pedro Barbosa, Rutgers University; and T. Michael Peters, University of Massachusetts. 450 pages, 303 illustrations. $6.50. Published April, 1972. Order Code 1541.

Ford and Hazen
READINGS IN AQUATIC ECOLOGY

Timely readings on aquatic and marine ecology! A collection of some of the most significant writings on the subject, this book is ideal for studies in aquatic and marine ecology, limnology, and biologic oceanography. The 29 articles are organized into six sections: physiological and behavioral ecology, small-scale distribution and sampling problems, population ecology, community and ecosystem ecology, biogeochemical cycles, and aquatic pollution problems. The papers have been carefully chosen to represent problems common to all water-borne ecosystems, whether fresh, brackish, or saline.


Porter
HERPETOLOGY

The major aspects of the biology of amphibians and reptiles is given broad coverage in this new Saunders book. Dr. Porter provides rigorous, definitive discussions of such topics as taxonomy, phylogenetic relationships, and physiology. He describes the anatomical and functional characteristics of herpetiles and traces their origins and development. He also delves into their environmental adaptations, moisture and temperature relations, reproductive isolations, population dynamics, and man's interactions with herpetiles. Some 300 illustrations, many original, underscore this superb overview of herpetiles and their place in the animal kingdom.

If you worry that airborne contamination might wipe out your animals, research, investment, hopes, and good humor... consider a reasonable alternative.

What is that "reasonable alternative"?
Our laminar flow STAY-CLEAN™ cage rack.

What does it do?
It "bathes" animals with a continuous stream of ultra-clean laminar flow air.

Why?
To reduce microbial or other airborne contamination of the colony.

What's the major gain?
It helps minimize interruption of research due to animal infection. And, of course, it helps protect the animal colony itself.

Is it too late to ask what "laminar flow air" is?
Hardly. The government describes it this way: "air flow in which the entire body of air within a confined area moves with uniform velocity along parallel lines, with a minimum of eddies." We think of it as: "unidirectional, non-turbulent air flow."

You say this laminar flow air is ultra-clean too?
Yes, it's been filtered to remove all potentially harmful particles 0.3 microns or larger.

This sounds like a practical way to reduce the hazards and frustrations of working with small laboratory animals.
It is. It is.

Are people now using this laminar flow cage rack for these reasons?
Yes, indeed. You'll find the STAY-CLEAN rack at NIH, Merck, the VA, Cornell Medical College, and MIT, to name a few.

How do I learn more?
Simple. Write "Stay-Clean" on a postcard and then add your name, address and zip code (please). We'll send a folder. Carworth, New City (Rockland County), New York 10956.

Carworth
Division of Becton, Dickinson and Company

Circle No. 15 on Readers' Service Card
There's a new IR family on the block that's making the old residents jealous.

It's going to be pretty tough keeping up with the Beckmans. These new infrared spectrophotometers—the AccuLab Series—outperform anything in their price class. And they've got features like the Beckman AccuSet™ meter that makes running of spectra easy and virtually foolproof.

AccuSet lets you make precise setting of slit and gain. Tells you right now if the setting needs correcting. Quickly and surely, you make adjustments so the needle centers smoothly in AccuSet's yellow zone. Then, start the run. No guesswork, no errors, no wasted scan.

In about 90% of solids and liquids work, these five spectrophotometers match the performance and reliability of many instruments costing much more. They're all remarkably simple to operate. Few controls, few adjustments. And the modestly priced AccuLab VI even extends into the far-IR range.

All optics are nonhygroscopic. So you won't get costly fogging even if the instrument is stored or unused for long periods of time. All models have continuous strip-chart recording, large cell compartment, and excellent microsample analysis without a beam condenser. Some also feature ordinate scale expansion using an external recorder.

Each model is automatic, too. Ideal for routine operations. The instrument runs a scan, lifts the pen, advances and syncs with a new chart—ready to run when you are. (Try finding those features in anything close to our prices.)

We've even helped with your housekeeping. You can have a sliding drawer-type “hot tray” that keeps cells warm to prevent fogging and also stores such items as dies and attenuators. So you don’t need those in-the-way desiccators.

Like the AccuSet meter, every feature designed in an AccuLab spectrophotometer results in (1) highest performance in the instrument's price class, and (2) fast and simple operation. That's because our designers have turned engineering into a science... and a service to you.

So, get to know our AccuLab family. You may grow to love one of them. Write for Data File 207, Scientific Instruments Division, Beckman Instruments, Inc., 2500 Harbor Blvd., Fullerton, Calif. 92634.

Circle No. 4 on Readers' Service Card
Announcing the Fleaker, the Fleaker Tool Kit, and a really great introductory offer!

Here's the PYREX® brand Fleaker—a versatile new tool for your lab.

We think the Fleaker can help you do more jobs, more easily, more conveniently. And we really want you to try the Fleaker, and see for yourself.

So we have put together the Fleaker Tool Kit, an assortment of nine Fleakers in three sizes, along with some handy accessories, to introduce you to the Fleaker and what may become a whole new lab lifestyle—"Fleakerocracy."

And we offer you the Fleaker Tool Kit now at a special dollar-saving introductory price. Send us the valuable Fleaker-Fiver Certificate with your order today.
Fleaker at work
Precise pouring, built-in filter cone support, are yours.

Fleaker in motion
Tight gripping stopper caps let you mix liquids with fervor.

INTRODUCTORY OFFER $5.00 OFF REGULAR PRICE

The Fleaker Tool Kit — look at all you get:
- Nine Fleakers — three each in 50-, 300-, and 500-ml sizes
- Six Fleaker cap borers
- One Fleaker gripper, for one-handed pouring
- Box of filter paper
- One 60" short-stem Pyrex® brand fluted funnel

Send this Fleaker-Fiver Certificate with your purchase order now to:
Corning Glass Works,
Fleaker Dept. 421,
Corning, N.Y. 14830

CORNING
Makers of PYREX® labware

You'd normally pay $29.50 for all those goodies. But you can get the Fleaker Tool Kit for only $24.50 plus applicable local sales tax when you send this Fleaker-Fiver Certificate with your order. Save $5!

What's more, this Fleaker-Fiver will save you $5 on each and every Fleaker Tool Kit that you order now. Order five — save $25. Or order even more — there's no limit.

Circle No. 16 on Readers' Service Card
If you're not an engineer, scientist or technician, don't read this page.


Programming: Choose either 128 or 256-step models.

Accessory card reader available for automatic entry of programs and additional functions not available through keyboard.

Dynamic range of $10^{-99}$ to $10^{98}$ in either preset or scientific notation.

10 completely separate storage registers with complete entry, recall, transfer and accumulation flexibility.

Automatic special functions for:
- $\frac{1}{x}$
- $\sqrt{x}$
- $\sin^{-1}$
- $\cos^{-1}$
- $\ln$
- $\Sigma x$
- $\pi$
- $e$
- $\sigma$
- $x!$

Complete program library covering every scientific and engineering discipline available to Monroe users.

Monroe. The Calculator Company.
550 Central Avenue, Orange, New Jersey 07051
81 Advance Road, Toronto 18, Ontario, Canada
After all the tough preparatory work, you owe it to yourself to photograph specimens with products specifically designed for electron microscopy. You'll get better results, have to do less after-the-fact print manipulation.

Kodak gives you a choice of plates and films that lets you tailor your photography to subject and equipment stability. For transmission electron microscopes—Kodak Electron Image Plates and Kodak Electron Microscope Film 4489 (Estar Thick Base). If you're using the SEM, we suggest using Kodak Commercial Film 4127 (Estar Thick Base).

For print processing, look into the Kodak Ektamatic Processor. It occupies only 12 × 30 inches of table space, and delivers ready-to-use prints on Kodak Ektamatic SC Paper in 15 seconds. Filters give you a choice of paper contrasts from one box. Less paper to stock. You never run out of the grade you want.

Send for details. Make your own judgment. If you see it, you can keep it.

Circle No. 12 on Readers' Service Card
We regretfully announce that we were system into our old calculator box.

All we could get in were a lot more statistical functions, 52 times as many memory registers, 16 times as many programming steps, and a magnetic card reader. The rest of the stuff we had to leave outside.

Our box still weighs 22½ pounds, but it now holds

Statistical functions for summations \((n, x, x^2)\) of single and grouped entries, standard deviation and mean, summation of two-variable and three-variable data \((n, x, x^2, y, y^2, z, z^2, xy, xz, yz)\) linear regression, normal distribution, chi-square, z-statistic, independent and dependent t, permutations and combinations. A key for correction of errors and removal of unwanted data.

Mathematical keys for logs, antilogs, \(a^r\), square root, pi and e, invert, factorial.

Up to 522 memory registers, in increments of 64. There's 4-rule arithmetic and special key functions into and out of all registers, and you won't destroy the contents when you turn off the machine.

Up to 4,096 steps of programming, in increments of 512. You can do an entire program from the keyboard and see all your steps printed out for debugging. Symbolic addressing makes branching and jumping very simple. You can backspace, correct errors, and insert steps without having to re-enter the program. You can program the decimal-point printing format, do 16-level nesting.

A magnetic card reader/writer that lets you input programs, write programs, put data into memory, save programs and memory contents.

Fully algebraic keyboard, with nesting of parentheses. You enter problems the way you write them out, not the way the machine wants them.
It doesn't hold

An input/output typewriter
(your choice of brands.)

An XY plotter.
A cassette tape recorder.
A punched-card reader.
A mark-sense card reader.
A Teletype.

You have to plug those in.

We're talking about the new 400 series of desktop computers that complements and extends our Compucorp calculator line. The Model 445 is for statistical folks, the 425 is for trigonometric types.

We've made more than 30,000 of our other models in the last couple of years. They come in little boxes that sit on a corner of your desk. Each one has an array of powerful one-punch keys that solve the problems of a particular kind of user. They have up to 20 storage registers and 256 steps of programming.

There's a wide range of prices so you can buy enough power to do your job without having to pay for more than you need.

But many customers have said, "That's not enough machine for me." Hence the 400's.

The 400's are as easy to operate as our other models (easier, in fact.) They're enormously powerful and versatile, they interface with an array of peripherals, and they come in the same little box.

The 400's start at $3,750, our other models a lot lower.

Write down what you need on your letterhead. We'll show you a calculator or a desktop computer that fits your problems and your pocketbook.
Our New Model 20 Programmable Calculator. Latest In the Series 9800.
It speaks and understands English. It speaks and understands Algebra. It really understands your problems. It was designed for instant programming right at your desk. The Model 20 will take you from concept to final solution of your problems faster than any other system on the market.

Incredibly Natural Language. You'll quickly grasp the operating concepts of the Model 20, because it uses a natural but powerful language that lets you work with algebraic symbols, formulas, and English language instructions. And, if you already know how to program, you'll appreciate features that once were exclusive to languages like FORTRAN or BASIC: Enter and Format statements, function subroutines, and callable subroutines with parameter passing.

Talk out a problem with your Model 20. Key in your problem exactly as you would write it on paper. Press EXECUTE and there's your answer. It's deceptively simple.

With the Model 20 you always know where you stand. Its alphanumeric display and printer give you operating instructions, show your formula as you key it in, and
completely label your input and output data.

**Easy To Get Along With.**
One of the nicest things about the Model 20 is that it doesn't bite. If you make a mistake, your display not only tells you there's an error—but precisely what and where the error is. Then it's a simple matter to insert, delete, or replace anything from one symbol to an entire line with just a few quick strokes on the editing keys. It adds up to this: You don't have to be an expert to operate the Model 20. Because of its error detecting and correcting techniques, the Model 20 is the fastest and easiest programmable calculator available.

**A Word About Power.**
What really counts is not that our calculator will solve up to 36 simultaneous equations, but what you can do with that power. With the Model 20 you'll spend less time getting answers and more time building ideas. Another thing. Our keyboard is modular. So if you don't like our setup, you can build your own.

The Model 20 can be plugged into our hardworking Series 9800 Peripherals: X-Y Plotter, Type-writer, and Card Reader, to name a few. An added plus—it interfaces with test instruments. The basic unit, including our built-in alphanumeric display and printer is $5,475, with immediate delivery.

For more information or a "hands-on" demonstration, write: Hewlett-Packard, P.O. Box 301, Loveland, Colorado 80537. In Europe: 1217 Meyrin-Geneva, Switzerland.
AMINCO'S NEW
UV-VIS
SPECTROPHOTOMETER
PROVIDES
UNEQUALLED VERSATILITY

The AMINCO-CHANCE DW-2 UV-VIS SPECTROPHOTOMETER is a completely new instrument providing total sample handling capability with unparalleled flexibility of operation.

TOTAL SAMPLE HANDLING CAPABILITY:
Flexibility built into the cell compartment permits optimum positioning of turbid samples or solutions and allows easy insertion of the Diffuse Reflectance Attachment for opaque or solid samples.

SIX MODES OF OPERATION: SPLIT BEAM MODE — A single monochromator is used to scan entire usable range (200 to 850 nm) or as little as a 75-nm increment of that range. The beam is time-shared through a reference and sample cell.
DUAL WAVELENGTH MODE — One monochromator is set at a reference wavelength, the other scans a preselected wavelength increment. Beams are time-shared through a single cell.
DERIVATIVE MODE — The two monochromators are locked together at slightly different wavelengths and scanned. Beams are time-shared through a single cell.
RAPID KINETICS MODE — High speed chopper allows use of the Aminco-Morrow Stopped-Flow Apparatus to monitor rapid reactions in the single beam or dual wavelength mode.
SINGLE BEAM MODE — Operates in energy mode.

ALSO FEATURES:
ORDINATE EXPANSION to 0.005 Absorbance full scale
RESOLUTION Better than 0.3 nm
BASELINE COMPENSATION via 11 or 31 potentiometers
BUILT-IN REPETITIVE SCAN
TEMPERATURE CONTROL of sample is possible in all modes.
DIGITAL READOUT
PUSHBUTTON CONTROLS

AMERICAN INSTRUMENT COMPANY
DIVISION OF TRAVENOL LABORATORIES, INC.
8030 Georgia Avenue, Silver Spring, Maryland 20910

Circle No. 11 on Readers' Service Card
Look what's happened to frozen-tissue technique

1. New, quick-freeze method (AMPO® disposable CRYOMOLD™) to embed specimens completely in a frozen matrix... minimizes distortion (or "soft spot") at the cutting surface... makes sectioning of tissue—even in ribbons—relatively easy.

2. Efficient new systems maintain the work area frost-free, the viewing window fog-free and automatically defrost the unit periodically.

3. Enlarged cold chamber with storage areas, plus additional work space on top of the instrument, makes working easier and more efficient both inside and outside the unit.

new Ames™ Microtome/Cryostat II
...gives you 3 innovations you've been missing

For detailed information and/or to arrange for a demonstration, please fill out and mail the coupon below.

Ames Company
Division Miles Laboratories, Inc.
Elkhart, Indiana 46514 Dept. 1490
☐ Please send detailed information on your new Microtome/Cryostat II.
☐ Please have your representative call to arrange for a demonstration of your new Microtome/Cryostat II.

Phone No. ____________________________

Name ________________________________

Address ______________________________

City ______ State ______ Zip Code ______

Circle No. 14 on Readers' Service Card
For laboratories weighing costs as well as samples, a precision top-loader for only $395.

Today more than ever before, cost is a major consideration when purchasing new laboratory equipment. If your lab needs a modern, efficient top-loading balance, the Sartorius 1104 is your best answer from every standpoint, including price.

The 1104 is a precision-made torsion balance with 1,000 g capacity/0.1 g accuracy, ideally suited for a wide variety of student, research and industrial applications. Design-wise, it incorporates many advanced features: all-digital readout, full-range optical scale, built-in mechanical taring, readings in less than 3 seconds, no beam oscillation, and no weights to handle or dial in. A non-fatiguing torsion band system eliminates the need for knife edges.

At only $395, there is no better balance buy than the 1104. Greater accuracy, if needed, is available with the Sartorius 1106 (200 g capacity/0.015 g accuracy) at $430.

To find out more about these models, send for our free balance catalog. Just write: Sartorius Division, Brinkmann Instruments, Cantiague Road, Westbury, New York 11590.

Sartorius balances

Circle No. 2 on Readers' Service Card
NICOLET OFFERS... NEW PLUG-INS FOR YOUR SIGNAL AVERAGING PROBLEMS

... problems like averaging ultrafast transients, simultaneously counting pulses from four sources, averaging signals occurring before a trigger, and averaging with respect to non-linear independent variables.

SD-78 High Speed Buffer Interface plug-in interfaces the 1070 System to a Biomation transient recorder which accumulates data at rates up to 100MHz (10 nanoseconds per point). Up to 2048 data points are then transferred to the 1070 memory where the signals from each sweep are averaged. Applications include pulsed NMR, radar, fluorescence decay studies, high speed reaction kinetics, explosion monitoring, and shock tube tests.

SH-73 Four Input Multichannel Window Discriminator/Scaler plug-in simultaneously counts pulses from one, two or four separate signal sources at pulse rates up to 10 MHz. Typical applications include: generation of post-stimulus time histograms in neurophysiology where each input counts single cell nerve firings per unit time; and, counting radioactivity from multiple detectors or at different energy levels in nuclear medicine isotope uptake studies.

SW-78 Signal Delay Sweep Control plug-in permits inspection of a portion of a signal which occurs prior to the trigger. A typical use is inspection of an ECG where the R-wave is the trigger but the preceding P-wave is also of interest. Another application is in NMR spectroscopy where the start of the spectrometer sweep does not remain time-locked with respect to the irradiation energy.

SW-79 Parametric Sweep Control plug-in permits signal averaging in those applications where the independent variable changes at an unknown or non-linear rate with respect to time. The averager's address advance is controlled by monotonic amplitude changes in the independent variable. Typical applications include averaging temperature as a function of pressure, voltage as a function of current, or absorbed energy as a function of magnetic field intensity.

NICOLET INSTRUMENT CORPORATION

5225 Verona Road, Madison, Wisconsin 53711
Phone 608/271-3333 TWX: 910-286-2713
(formerly Fabri-Tek Instruments, Inc.)


Circle No. 21 on Readers' Service Card
ment as a categor'ical assertion, with no recognition of the fact that legal opinion on the question is divided, conveys a false sense of finality and uniformity.

In an excellent review of the law that has been and might be applied to control of population growth, Montgomery (1) concludes, "If the problem is not solved voluntarily, there will be no constitutional bars to compulsory population control." Colorado State Representative Richard Lamm is of a similar opinion (2).

In the 1965 National Fertility Study, respondents reported that one-third of all children born in the previous 5 years were "unwanted." Jaffe, therefore, contends that, "The reduction of unwanted pregnancy . . . provides a tangible objective for national policy. . . ." Before we undertake such a policy, we should first pause to consider the implications of other findings of social science research.

When respondents are asked to label their children as wanted or unwanted, the researcher has little alternative but to accept their replies as valid, for there are no validation criteria available. It is possible, however, to reason by analogy from those studies in which objective validation has been obtained. If those studies demonstrate the inaccuracy of self-reported data, then we may feel little confidence accepting such measures of unwanted pregnancy as valid.

Green (3) reported responses and actual behavior in a study of contraceptive usage in East Pakistan. Using interview data and clinic records, he found that people underreported both their use and knowledge of contraceptives. Approximately 20 percent of all males and 25 percent of all females who knew about contraceptives (according to education program records) denied any knowledge of them. Of all couples who had used contraceptives (according to clinic records), about 20 percent of husbands and 33 percent of wives denied ever having used them. Other studies have also found significant discrepancies between self-reported data and objectively measured indicators of the same behavior (4).

It would be a mistake to make the elimination of unwanted pregnancy a major objective of U.S. population policy until we know what we are talking about. What does labeling a child "unwanted" mean? To what extent is the verbal behavior of the parent an indication that they will willingly take preventive action?

EDGAR R. CHASTEEN
Department of Sociology, William Jewell College, Liberty, Missouri 64068

References

The objectives of women's liberation cited by Weis are totally consistent with a national policy to reduce unwanted pregnancy. Indeed, the Commission on Population Growth and the American Future recommends several related efforts—ending sex discrimination in employment and education; changing the content of education that our schools offer both women and men; legitimizing roles for women, alternative to or supplementary to mother-

---

Bausch & Lomb's 35mm Micro/Macro System for Technical Photography saves you time and money. The Canon through-the-lens spot-metering system assures convenient and accurate exposure measurements under all conditions. Most correction calculations have been eliminated. Time and film used in bracketing exposures are saved for more productive work. It surely is a "one shot" operation.

With extension tubes, rings or adjustable bellows you can get down close to your subject for 1:1 same size images on the film. Or, you can back off for an infinite number of magnifications, up to 15X without a microscope.

The right angle viewer makes for convenient observation of the specimen with the camera in the vertical position. For extreme, low-light level conditions there's a Light Meter Amplifier for exposures longer than one second. In effect, this optional attachment amplifies the available light by a factor of sixty-four.

Suggested list prices start at approximately $500. Compare Bausch & Lomb with other less complete systems. Your checkbook will love you.

Get the complete information in our new catalog 42-2326. Write today.
hood; and providing adequate child-care services—both because they increase personal freedom, and because, in aggregate, they are likely to reduce fertility (1). The interrelation between women's liberation and successful control of fertility seems obvious—without the latter, there is not likely to be much of the former. Some of these efforts, for example, child care and discrimination in employment, are beginning to be conceptualized in specific enough terms to become actual national programs; those which depend on changes in basic values and attitudes continue to lack the specificity necessary for programming. If I "underrated" anything, it was skepticism about our collective capability to induce changes in values directly as a matter of national policy. The more vocal advocates of "beyond family planning" measures rarely confront this problem explicitly, but implicitly they express more confidence in social intervention to change individual motivations directly than is justified by history. Modification of institutional arrangements and priorities seems more tractable, particularly when the institutions involved are in some measure dependent upon public funds and thus more readily influenced by public policy and programs.

The program I outlined stressed the need for various kinds of research to answer unanswered questions, including the "unconscious motives, life-style pressures, and other social and personal factors not always clearly identifiable" that Fein describes. Until they are identified by competent research, it will not be possible to formulate programs that can cope with these factors. I am not familiar with the projects with teenage mothers that Fein cites, but I wonder if they emphasize the provision of contraceptive services as strongly as they stress contraceptive education; according to an internal evaluation made by the Department of Health, Education, and Welfare of all such comprehensive programs for pregnant teenagers extant in 1968, of all possible services, contraceptive services were least likely to be provided in these programs. The problems of already pregnant teenagers, however, are not necessarily identical to those of all sexually active teenagers, many of whom might well be able to utilize contraceptive services effectively if they were made available. It will be interesting to see what effect the availability of safe and dignified abortion has on the number of both initial and subsequent out-of-wedlock births in New York in the next several years.

Chasteen's discussion of the limitations of survey research ignores the basic fact that, in the surveys in question, respondents were required to characterize children already born as unwanted or wanted at the time of their conception. In view of the natural propensity of parents to feel affection for their children and retrospectively to rationalize unwanted conceptions as wanted, the directors of the 1965 and 1970 National Fertility Studies concluded that there was probably error in those findings, but on the side of underestimation of the incidence of unwanted births that could have been prevented by more effective fertility control (2). A comprehensive set of programs to achieve such control, at relatively modest social cost, has been recommended by the Commission on Population Growth and the American Future (3), not out of certainty that they will by themselves produce replacement-level fertility, but out of the conviction that they are likely to take us pretty far down the road to that goal. Reputable legal scholars believe that laws or programs to prevent parents from having wanted children would be deemed unconstitutional in the light of the Griswold case (4) and other rulings. The basic constitutional rationale—the right of the woman to determine whether or not she bears a child—is both implicit and explicit in those recent rulings that invalidate restrictive abortion laws because they violate personal freedoms. Unless the factual circumstances become vastly different from what they are today, it does not seem likely that the same court will interpret the same Bill of Rights as holding state intervention to prevent the birth of wanted children constitutional and antiabortion laws unconstitutional.

FREDERICK S. JAFFE
Center for Family Planning Program Development, Planned Parenthood—World Population, 515 Madison Avenue, New York 10022

References
Water this perfect deserved a name.

This water is sterile and pyrogen-free. It has a high specific resistance and less than 1 ppm total dissolved solids. It's been used in biological and biochemical research because of its excellent qualities. And it's never had a name.

Until now. Last year we introduced a little book called The Barnstead Basic Book On Water. In it we named this perfect water "biopure".

This water is now being looked at by a lot of people who should be concerned about the water they're using.

In laboratories and hospitals where instruments are sensitive to even minute traces of contamination. And by pharmaceutical companies who make products that people use internally and externally.

We're all going to hear a lot more about biopure water and the means for producing it.

You'll know a little more a lot sooner if you send for our free Biopure Water Systems booklet.

We're sure of that. And we're the people who know everything you need to know about water.

Barnstead

225 Rivermoor Street/Boston, Mass. 02132.
(617) 327-1600.
Mr. Norman McLellan

☐ Please send me information on your systems to produce BIOPURE water.

Name_________________________ Title_________________________

Company________________________ Address________________________

City________ State_________ Zip________

☐ I've also enclosed my dollar for my copy of The Barnstead Basic Book On Water.
Now you can install the HP Automatic Sampler
...the reliable one...
on most popular makes of gas chromatographs

More than a thousand labs have already taken a
dramatic yet inexpensive first step toward auto-
mation by installing the 7670A/7671A Automatic
Sampler on their HP gas chromatographs. New low-
cost adaptor kits now extend the benefits of
the HP Automatic Sampler to most other popular
makes of GC's.

There are three good reasons why you should
consider making this step too. First, the 7670A/
7671A completely automates the injection of as
many as 36 consecutive samples, letting you
operate your GC completely unattended
overnight and on weekends, more than tripling its output. Second, the Automatic
Sampler is consistently more precise in
measuring sample volume and injection
time than even a very careful skilled
technician. Finally, the 7670A/7671A
has been proved in scores of labora-
tories around the world to be an amaz-
ingly reliable precision instrument, even
when it is used around the clock. In
our own laboratories, we have dem-
onstrated that it is capable of oper-
ating reliably for 40,000 injection
cycles—the equivalent of more than
two years of continuous use—without
serious malfunction or deterioration in
precision and with amazingly little wear.

HP Automatic Samplers cost $3250 and are
installed directly on most HP GC's. Adaptor
kits for most other popular makes cost $100 to
$200 depending on GC model. For complete infor-
mation, call your nearest HP sales office or write
for literature. Hewlett-Packard, Route 41, Avon-
dale, Pa. 19311. In Europe: 1217 Meyrin-Geneva,
Switzerland.

HEWLETT PACKARD
ANALYTICAL INSTRUMENTS
The KL-14 clinical microscope proves there's no double standard at Zeiss.

A sturdy and inexpensive clinical microscope from Zeiss. That's the KL-14 you see on the left below—and on the right. We show it twice to prove it's not just another lab microscope. It's designed for the day-to-day work of a clinical laboratory...but its optics are exactly the same as those of our larger research instruments. So there is no compromise either of your image or ours.

It can grow on you. Interchangeability is a by-word at Zeiss. And that could be important to you. Because it means that the KL-14 can accept the complete line of quality Zeiss objectives, condensers, cameras, light-sources and attachments...and can be expanded into the sophisticated research microscope you see on the right. And even if you never have that need, you have the confidence all along that you're not getting second-best. There is no second-best at Zeiss.

Send for detailed literature. We have a new booklet that gives details on, among other features, the new in-base low-voltage compact illuminator that permits Koehler illumination and use of darkfield and phase contrast techniques.


Nationwide Service.