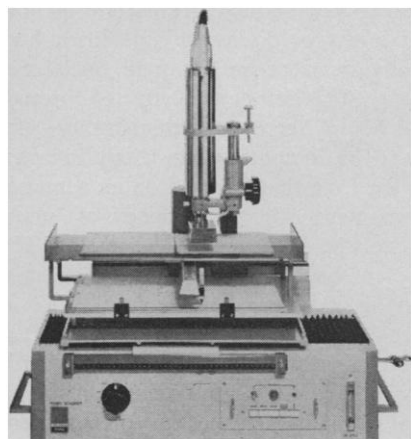


# unequalled sensitivity for scanning radio-labeled TLC plates



MODEL 6000-2  
RADIOCHROMATOGRAM SCANNER

For rapid, nondestructive, and highly sensitive separations of compounds labeled with radioactive isotopes, for either analytical or preparative purposes, nothing can compare with the Varian/Berthold Radioactive Scanning System.

As little as 100 dpm of  $^{14}\text{C}$  and 3000 dpm of  $^3\text{H}$  per spot can be detected easily. If the material is present in a 2-mm zone, the sensitivity is 20 dpm for  $^{14}\text{C}$  and 600 dpm for  $^3\text{H}$ . We can detect even smaller amounts of isotopes with higher energies.

More than 700 of your colleagues use the Varian/Berthold TLC Scanner. They just put the plate on and scan. They obtain directly and simultaneously the activity profile and the corresponding integrals. Automatically. No fuss. No bother.

varian aerograph



2700 MITCHELL DRIVE  
WALNUT CREEK/CALIFORNIA/94598  
Circle No. 61 on Readers' Service Card

supply of pregnant baboons is waning, and in order to complete the research, I need more than our breeding colony can supply. Would anyone with baboons in the early stages of pregnancy, who would be interested in selling them, please contact me. All inquiries should be directed to my address below.

WARREN M. CROSBY

*Department of Gynecology and  
Obstetrics, University of Oklahoma  
Health Sciences Center,  
800 Northeast Thirteenth Street,  
Oklahoma City 73190*

## Coal Workers' Pneumoconiosis

Despite Joseph Pichirallo's attempt to be impartial, there are several half-truths in his account (News and Comment, 8 Oct., p. 132) of the present dispute over coal workers' pneumoconiosis (CWP). This is a disease caused by the inhalation and retention of particles of coal, and a definition of the disease has been agreed upon by both the International Labor Office and the World Health Organization—the retention of coal dust in the lung and the tissues' reaction to it. Furthermore, it has been shown that there is a strong relationship between the amount of coal dust in the lungs and x-ray category. Since the onset of complicated CWP is directly related to the dust content of the lung, and since this form of CWP is universally accepted as both disabling and as a cause of premature death (in contrast to simple CWP), the x-ray remains the only way of quantifying dust exposure and hence the likelihood that complicated CWP will develop.

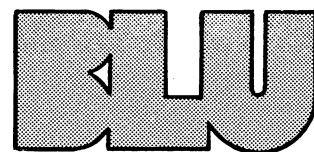
Simple CWP leads to only minor impairments of pulmonary function that are not associated with respiratory disability and cannot be diagnosed from a chest film. However, the issue is confused by the fact that chronic bronchitis and emphysema probably occur more frequently in coal miners than in the general population and likewise cannot be recognized in a chest x-ray. The major cause of these diseases in miners is cigarette smoking, although it is likely that dust exposure has an additive effect.

The chest x-ray is used by the Social Security Administration to determine dust retention in the lungs, and there would seem to be much justification for their policy. However, under the

# Some rats may perform well on short space probes, but back on earth, it's longevity that counts.



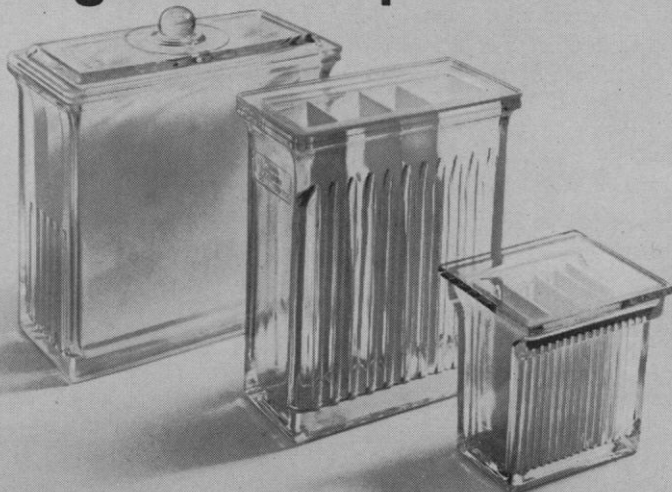
Research laboratories have experienced as high as 80% or better survival in two-year studies with BLU:(LE) Long-Evans descent hooded rats. This is a result of a careful selective breeding program that makes the BLU:(LE) rat highly resistant to respiratory diseases. The BLU:(LE) has been proven to be superior in breeding performance, intelligence, behavior and general health. If you are engaged in down-to-earth experimentation—the kind that often takes two years to show significant results—try the BLU:(LE). Blue Spruce Farms is the only source of the BLU:(LE) rat. For information write or phone:



BLUE SPRUCE FARMS, INC., Dept S  
Gardner Road  
Altamont, New York 12009  
Telephone: (518) 861-8583

LARGE ENOUGH TO SERVE YOU  
SMALL ENOUGH TO NEED YOU  
Circle No. 63 on Readers' Service Card

## Great TLC development... Our glass multiplate tanks.



Developing numerous TLC plates simultaneously is a snap with these all-glass multiplate tanks from Brinkmann.

Our large tank accepts five home-made or pre-coated 20x20 cm plates and is available with optional stop-cock or regular cover. The middle tank holds ten 5x20 cm plates up to 6 mm thick. The small tank will

handle sixteen 5x10 cm plates or sheets up to 1 mm thick.

Need literature? Just write: Brinkmann Instruments, Cantiague Road, Westbury, New York 11590. In Canada, write: Brinkmann Instruments (Canada) Ltd., 50 Galaxy Blvd., Rexdale (Toronto), Ontario.

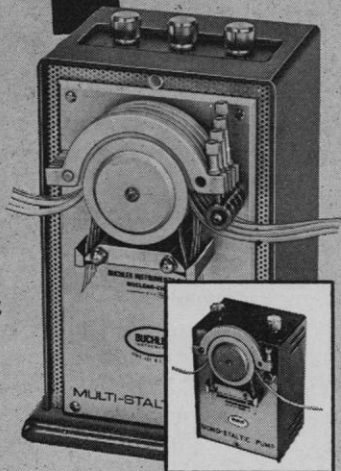


Circle No. 62 on Readers' Service Card

## NEW METERING PUMPS from BUCHLER MONO-STALTIC & MULTI-STALTIC PUMPS

**For Accurate Metering, Sampling, Layering, Transfer and Withdrawal of Liquids at a Fixed or Variable Speed**

Available with single, four or eight veins. Adaptable to organic solvents or corrosive liquids. Other features include: instant reversible flow; various sized tubing may be used together; individually adjustable flow rate; flow rates from 3.0 ml to 3500 ml/hr/vein; Tygon, rubber or Teflon tubing; and long tubing life without creeping or stretching. Solid state speed control.



**BUCHLER INSTRUMENTS DIVISION  
NUCLEAR-CHICAGO CORP.**

A SUBSIDIARY OF G. D. SEARLE & CO.

1327 SIXTEENTH STREET, FORT LEE, NEW JERSEY, 07024

Circle No. 65 on Readers' Service Card

Request Bulletin SC 2-6200B

Federal Coal Mine Health and Safety Act, coal miners have a separate disability award that is based on the assumption (known to be erroneous) that simple CWP is a disabling condition. Moreover, the disability criteria on which awards are based are the same as those for chronic bronchitis and emphysema. That this is unfair to non-miners should be apparent to all.

If a man has a disease or injury which precludes his working, society has a responsibility to him. Compensation should be paid irrespective of how his injury or disease originated or how many quarters he has paid Social Security. This can best be effected through the Social Security Administration. Let there be a contribution from industry to the fund that is based on an actuarial assessment of the frequency of industry-related injury and disease. The present haphazard system of each state having its own workmen's compensation laws is grossly unfair and is often discriminatory. In some states, awards are inadequate and difficult to obtain, and in many instances up to 50 percent of the award finds its way to the pocket of a lawyer. A federally administered system would ensure that the disabled man, rather than a third party, receives the benefits.

W. KEITH C. MORGAN  
CHARLES E. ANDREWS

*School of Medicine,  
West Virginia University,  
Morgantown 26506*

### Newton and the Mint

The danger of relying solely on aging classical histories is illustrated in L. A. Segal's letter "Newton, the politician" (21 Jan., p. 255). Sir John Craig (1) gives the following description of Newton's tenure as Warden of the Mint: "The credit given to Newton . . . is doubly wrong. The Great Recoinage was a social crime, and its principles had not been advocated by him." Examination of the chronology indicates that the laws were passed and issuance of the new coin and collection of the old begun before Newton assumed his new post. Craig quotes Montague's description of the position to Newton as not having "too much business to require more attendance than you may spare." Craig concludes that Newton managed "varied business with diligence and a moderate efficiency . . . but . . .

SCIENCE, VOL. 176