

were created instead of a single big one because of the disturbing pull exerted by the near-by giant planet Jupiter, which likewise was being formed from the cosmic cloud about that time.

Sometime within the past three billion years two of these minor planets bumped into each other, Dr. Kuiper reasons. Numerous tiny planets were thus created. Collisions between these baby planets became increasingly frequent until thousands of asteroids, flying mountains known to exist in this region today, had formed.

The nearest any of us will ever come to a minor planet is a meteorite, fragment broken off one of the baby planets. These cosmic bits flash through our atmosphere as fireballs, almost as bright as the sun and easily seen in the daylight. Thousands of these souvenirs of small neighboring planets have been found here on earth, and some actually have been seen to fall.

Science News Letter, June 9, 1951

Bread baking is one of the most ancient arts.

Raisins are good food for turkeys, California experts claim.

SNOOPERSCOPE TUBE

SUPPLY LIMITED—These are government released British snooperscope tubes which employ the special simplified design, making construction of experimental models possible with simple hand tools. Highly sensitive, they provide a bright clear image of invisible infra red rays. Also useful as infra red (invisible) photocells. With complete hook-up instructions.



SEE IN THE DARK

Special Price \$14.95

GE OZONE LAMP

Generates short ultraviolet radiation (1849A & 2537A) which produces ozone by converting the oxygen of the air (O₂) into ozone (O₃). Useful for fluorescent & phosphorescent materials. Uses only 4 watts of power. Lamp supplied with socket and instructions.



Your Price \$1.95

FLUORESCENT PIGMENTS

Brightest glowing, concentrated phosphors, available in many colors. Red, White, Blue, Green, Yellow and Orange. Mix with clear lacquer for painting. **SAMPLE SIZE** (specify color).....35c each
COMPLETE SAMPLE KIT (6 colors).....\$1.75 each
One Ounce Bottles (specify color).....50c each

No. 2444 POCKET DIFFRACTION

SPECTROSCOPE

This is a very convenient pocket spectro-scope for general purposes and students' use, having a dispersion of 20°. The slit is of a fixed width, protected by a glass cover to prevent dust from entering. An adjustment for accurately focusing the spectrum is provided. Not a toy but a scientific instrument. Available for the first time in small size. No. 2444. Pocket spectroscope, in leather case. **Special Price \$9.95** (while they last)



SNOOPERSCOPE BOOK

Shows in detail Army and Navy snooperscopes, sniperscopes and infra red telescopes. One of the few books of its kind. Circuit hookups for practical instruments are given. **Special Price \$1.50**

8 Page Illustrated Catalog and Infra Red Technical Data 10c. FREE with purchase of any above item.

PRECISE COMPANY

942 KINGS HIGHWAY BROOKLYN 23, N. Y.

MEDICINE

Polio Progress Report

Research in fight against infantile paralysis includes studies of vaccines, diet and ACTH, bacteriologists' meeting told.

➤ **ADVANCES** IN the fight against infantile paralysis range from studies of diets and vaccines to cockroaches and one of the famous anti-arthritis remedies, ACTH.

Here is the box score, as reported at the meeting of the Society of American Bacteriologists in Chicago.

1. Vaccination against either whooping cough or diphtheria or the combined vaccination now generally used does definitely lower the resistance to polio.

Laboratory evidence for this, from 19 experiments involving over 450 mice, was presented by Drs. Albert Milzer, Molly A. Weiss and Katherine Vanderboom of Michael Reese Hospital and Research Foundation, Chicago. This is expected to strengthen advice doctors have been giving to postpone whooping cough and diphtheria vaccinations until after the polio season each year.

2. Cockroaches are more likely to be spreaders of polio than flies. Laboratory evidence that they can "acquire, maintain and excrete" two strains of human poliomyelitis virus and one strain of Coxsackie virus was presented by Drs. Robert G. Fischer and Jerome T. Syverton of the Universities of North Dakota and Minnesota.

"The most probable explanation" of the way these viruses spread naturally, in the opinion of these two scientists, is from intestinal wastes to food or drink, as typhoid fever is spread. This suggests flies as spreaders of the disease but, the scientists point out, in many parts of the world cockroaches are more constantly and intimately associated with man's intestinal wastes and food than flies. Moreover, the long life, gregariousness and nocturnal habits of cockroaches give them opportunities flies do not have for acquiring viruses from excreta and transferring them to food.

3. Depriving mice of the protein building block, tryptophan, by feeding them a closely related chemical increases their resistance to polio, Drs. A. F. Rasmussen, Jr., P. F. Clark, Sam C. Smith and C. A. Elvehjem of the University of Wisconsin reported. While humans are not likely to get a tryptophan-deficient diet, the mouse studies seem to give a clue to the polio virus' nourishment requirements which may lead to a polio-fighting medicine. A similar clue comes from the Wisconsin group's finding that mice with underactive thyroid glands were less resistant to polio than normal mice.

4. ACTH, the pituitary gland hormone

which stimulates the adrenal glands to produce cortisone, failed to increase resistance to polio in monkeys and in fact made the animals more susceptible to the disease, Drs. J. D. Ainslie, T. Francis, Jr., and G. C. Brown of the University of Michigan reported. Their study was an attempt to learn more about the relation between the polio virus and the animal or human it invades. The possibility of glands playing a role in this relationship appears from their studies and those of the Wisconsin group with underactive thyroid mice.

5. Hope for an anti-polio vaccine seems to get some encouragement from studies reported by Drs. Hilary Koprowski, Thomas W. Norton and George A. Jervis of the New York State Department of Mental Hygiene at Letchworth Village, Thiells, N. Y., and the Lederle Laboratory, Pearl River, N. Y. These scientists adapted a monkey strain of polio to Swiss albino mice by injecting it into a mouse brain, recovering it from the first mouse, injecting it into a second, and so on for seven transfers, or passages. The same strain was also adapted to cotton rats.

When this rodent-adapted strain was used to vaccinate monkeys, it showed a very low degree of virulence for the animals and markedly increased their resistance to the original, unadapted strain of polio virus.

Science News Letter, June 9, 1951

TECHNOLOGY

Housewives Will Be Able To Cook on Glass Soon

➤ **HOUSEWIVES WILL** be cooking on glass in the future as the result of the development of a new infrared stove lamp that can be fitted into the standard space on electric stoves.

Very tough and heat-shock resistant glass of high silica content is used in the 1250 watt infrared lamp. Lead can be melted easily on the flat upper surface of the lamp and an ice cube can be vaporized quickly without danger of breaking the unit.

A red glass plate above the actual lamp with its gold reflector gives visual warning the instant the lamp is turned on.

Corning glass is used by Sylvania Electric Products which has just begun supplying this new lamp to range manufacturers.

Science News Letter, June 9, 1951