

CHEMISTRY

New Acid Indicator May Be Better Than Litmus

CHEMISTRY has been presented with a new chemical which is said to have advantages over litmus for indicating the difference between acid solutions and alkaline solutions at very low concentrations.

It is 2,4-dinitrobenzene-azo-1-naphthol-3,6-disulfonic acid, a name which tells the chemist exactly what it is composed of, but the inventor has offered "nitrazine yellow" as a shorter alternative.

Nitrazine yellow is distinctly blue in a solution of alkali such as soap or ammonia. If an acid like muriatic or vinegar is added, the solution remains blue until the alkali is neutralized. Then if a little more acid is added the solution turns gray, at an extremely low acid concentration defined by chemists as pH 6.6, and beyond that point on a rising acid concentration the nitrazine yellow in the solutions turns bright yellow.

Dr. Henry Wenker, an independent chemist working in his private laboratory, discovered nitrazine yellow. He says its advantages over the well-known litmus indicator lie in the fact that it is slightly more delicate and that the color contrast is somewhat sharper.

Nitrazine yellow can also be used in the preparation of a test paper like litmus paper. This is a more convenient form for getting an accurate idea of whether a liquid is base or acid.

Science News Letter, June 2, 1934

GENETICS

Scientists Advised to Study Circus Side Shows

SCIENTISTS have at last found themselves a good alibi for taking in the circus side-show freaks.

"College teachers of eugenics courses," advises *Eugenical News*, "will find ample excuse as 'a purely scientific expedition' in accompanying their students to the side-show or Coney Island."

With just a suspicion of a twinkle in his eye, perhaps, the writer of this scientific advice argues persuasively that the student of human heredity must study the abnormal as well as the normal. Therefore, to see the abnormal at its most starkly exotic, students and teacher may now follow the crowd, as a scientific duty, to the tent where the "strange people" hold forth.

The extraordinary things they find called to their attention there are mostly hereditary—the giants, midgets, skinny and fat folk, albinos, the man with the revolving head or the extra leg, the pathetic microcephalic.

To be sure, carrying away a vivid mental picture of the pathological possibilities in heredity does not make a "scientific expedition." The eugenics student is expected to go further, and probe into the text book reasons for such abnormalities—whether diet, defective glandular mechanism, pre-natal injury or some other cause.

Additional light can be shed on the conditions that produce freaks by looking into the family history of any individuals who are willing thus to assist science. Not merely in the father and mother, but in thirty or forty of the nearest blood-kin, the eugenicist hunts for the traits, and perhaps certain environmental influences, that play their role in making a human strange enough for a side-show curiosity.

The rules of heredity are nowhere more impressively revealed than in the side-show.

Science News Letter, June 2, 1934

EVOLUTION

Hippopotamus Not Descended From Pig

THE hippopotamus is probably not the grandchild of a prehistoric pig, as many zoologists have believed. As four-toed members of the great cloven-hoofed group of animals, pigs and hippopotami have generally been considered fairly close relatives.

Examination of many hippo fossils from the late Tertiary deposits of India by Edwin H. Colbert of the American Museum of Natural History indicates that they were possibly descended, instead, from an ancient group of cloven-hoofed mammals called Anthracotheres.

Resemblances in the structure of the skull, teeth and skeleton are the main points upon which the relationship is traced. This is borne out by detailed dissections of pigs and hippopotami which show very little resemblance in their internal anatomy. The origin of the hippo has been one of the mysteries of paleontology, since the big-mouthed Behemoths appear in the fossil records very late and in essentially the same shape as we now know them. Intermediate forms, that would give evidence of what group of creatures they sprang from, have never been found.

Science News Letter, June 2, 1934

IN SCIEN

OCEANOGRAPHY

Iceberg Crop Big But Tourist Thrills Unlikely

IT IS a big year for icebergs in the North Atlantic, but ocean travelers are not likely to get the thrill of sighting these treacherous monsters of the sea.

The U. S. Coast Guard thus sums up the situation as the iceberg season nears its peak.

The forecast for the season was that about 700 icebergs would appear off the Grand Banks of Newfoundland. The average crop of these huge chips from the glaciers is around 500.

Latest reports from Coast Guard cutters patrolling the danger zone tell of bergs sighted about 44 degrees north latitude. This is 200 miles north of the track followed by steamers plying between the United States and Europe.

Ocean currents which determine the fate of the icebergs are keeping the bergs from drifting south into traffic lanes this year. Coast Guard officials say that while experienced sea captains try to keep as far from the drifting bergs as they can, many passengers look forward to seeing an iceberg as a thrill.

Science News Letter, June 2, 1934

CERAMICS

Cobalt Gives Pottery Silver-Like Coating

DAZZLING, silver-like coatings for pottery, which will not wear through or tarnish as pure silver does, are now possible at a moderate price.

By means of a special process recently discovered of producing "sharpfire" cobalt, a brilliant and extremely hard glaze, at a moderate price, the pottery industry has done an about face from the older method of using silver.

This gleaming substance has long been known, but it has been of little use as a coating due to its prohibitive price. Now it will appear on the market in all colors. It is even possible to combine it with burnishing gold or silver which will give the new coatings all the advantages of the pure metal.

Science News Letter, June 2, 1934

CE FIELDS

ETHNOLOGY

Mexican Indians Used Gourds for Duck-Hunting

BIG calabash gourds were an essential part of a duck-hunter's costume among the Indians of Northern Mexico, at the time of the Spanish Conquest. When a band of hunters harbored designs on a flock of ducks feeding in the shallow water, they first set a lot of calabashes afloat for several days until the birds became accustomed to them.

The hunter then donned a similar calabash hollowed out to admit his head and perforated so that he could see. With just the calabash above the water, the Indian moved among the ducks, and seizing them by the legs, drew them under, wrung their necks, and fastened them to his belt.

Dr. Ralph L. Beals, ethnologist of the University of California, found this method described in early Spanish chronicles of Mexico.

Science News Letter, June 2, 1934

PSYCHOLOGY

Fear of Capital Punishment No Deterrent to Murderers

FEAR of capital punishment apparently does not stop a murderer, Dr. John A. Larson of the Institute for Juvenile Research, Chicago, reported to the American Psychiatric Association.

Dr. Larson studied the personality make-up of 800 murderers in Illinois prisons for crimes ranging from assault with intent to kill to actual homicide. He found capital punishment apparently no deterrent to the group.

Almost half of the murderers studied were found to be emotionally unstable. In contrast, in the general prison population emotional instability is present on the average in only 14 per cent., or a little over one-tenth of the prisoners. Dr. Larson also found a marked increase in acute mental disease and breakdown. Over half of this occurs in the group of first offender murderers and accidental offenders.

"The women negro offenders of

American birth show the best promise of reclamation as they become good workers and trusties under the proper educational influence," Dr. Larson said.

Psychiatric treatment and re-education can accomplish much with the assault-murderer type of offender, he asserted.

In many cases the underlying factor which caused these prisoners to turn into murderers could be found in deteriorated neighborhoods and in alcoholism which brought about disorganization of the home.

Science News Letter, June 2, 1934

PUBLIC HEALTH

AAA Watching Health As Well As Economics

HEALTH considerations in the milk supply are not being disregarded by officials of the AAA, in working out the new marketing agreements denounced by some of the distributors.

One of the witnesses recently appearing before the House Agricultural Committee relative to these matters, Mrs. W. E. Frisbley, asked for the resumption of the old marketing agreements containing retail price fixing provisions. As president of the Chicago Housewives League and representing consumer groups in Chicago, Mrs. Frisbley said the old type agreements were necessary because they insured health safeguards.

Statistics showed, she said, that total milk consumption decreases when store sale of milk increases.

As a matter of fact, the "chiseler" who buys milk cheaply from dairies where standards of cleanliness are not enforced, is just the man whom the AAA wishes to catch. Under the present type of license and marketing agreement, it is believed quite practicable to "crack down" on him because jobbers who are obeying the agreement will report his activities, particularly his failure to pay the producer the established wholesale price.

Also the Department of Agriculture is proceeding constantly in an effort to clean up herds in cooperation with state governments. The aim is to eliminate all tuberculous cows and those suffering from Bangs' disease or contagious abortion. A considerable sum of authorized money may shortly be made available for this work, in connection with the establishment of beef cattle as a basic commodity.

Science News Letter, June 2, 1934

ZOOLOGY

First Chimpanzee Twins Pictured With Mother

See Front Cover

THE first chimpanzee twins born in captivity, and the first occurrence of such a double birth among the great apes, for which there is any scientific record, was reported recently by Dr. Robert M. Yerkes, of the Laboratories of Comparative Psychobiology, Yale University. (See SNL, May 26, p. 327).

A camera was trained on the rare infants by M. I. Tomilin, of Dr. Yerkes' staff, obtaining the very excellent portrait shown on the front cover of this week's SCIENCE NEWS LETTER.

The twins were born at the Anthropoid Experiment Station in Orange Park, Florida. When photographed they were exactly four months and one day old.

Science News Letter, June 2, 1934

PSYCHOLOGY

Voices Show Personality, Radio Test Indicates

WHEN you speak over the phone or radio, the voice transmitted electrically "gives away" more of your personality than you may think.

Harvard University psychologists, who feel that the problem of judging personality by the radio voice has received very little attention, have made ten experiments at their psychological laboratory and at a Boston radio station.

The voice does convey correct information as to personality, is the general conclusion reached by Dr. G. W. Allport and Dr. Hadley Cantril from the experiments. Inner qualities can be more correctly judged from voices than physical appearance or other outer signs, the psychologists report in the *Journal of Social Psychology*.

No particular trait has been found to show up consistently in normal speaking voices, so that listeners can regularly identify it. Nor is it true that certain types of individuals are always to be recognized by their voices, and other types not at all.

But in matching to voices various personality features, such as age, vocation, emotional type, interests, force of character, it was found that the judgments were successful often by large margins over chance.

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