the Bureau of Standards, on Saturday, April 23. If the length of the program requires it, there will also be sessions on Friday, April 22. Other meetings for the current season are as follows: August 4, 5, Pacific Coast Section at Berkeley; November 25, 26, Chicago, December 27–31, Toronto, annual meeting.

PENIKESE ISLAND, Buzzards Bay, was abandoned as a leper colony on March 10. The thirteen lepers on the island with three from Bridgeport, Conn., and two from Richmond, Va., were transferred to the federal leprosarium recently established at Carville, La.

UNIVERSITY AND EDUCATIONAL NEWS

A BUILDING plan for its medical school in Chicago has been adopted by the University of Illinois in cooperation with the state department of public welfare. What was formerly a ball park, just south of the Cook County Hospital, Chicago, is to become the campus. The buildings now under construction are a clinical institute, a new building for the Illinois Charitable Eye and Ear Infirmary, a psychiatric institute and an institute for crippled children. Later, the clinical institute and the orthopedic institute will be enlarged and additional buildings will be erected for infectious diseases, venereal diseases, a research institute, a library, class rooms, research laboratories and a dental institute. The Elizabethan style of architecture has been selected.

THE Senate of the University of London has adopted a resolution to continue the physiological laboratory at South Kensington until the end of 1923.

DR. L. EMMETT HOLT, Carpentier professor of the diseases of children at the College of Physicians and Surgeons, Columbia University, has resigned this chair and the administrative conduct of the department, and has been appointed chemical professor of the diseases of children.

AT the Harvard Medical School Dr. Philip Drinker, of the Buffalo Foundry and Machine Co. and Dr. Douglas A. Thom have become instructors of applied physiology and psychiatry, respectively. Dr. Frederick L. Wells, director of the Psychological Department of the Psychopathic Hospital, Boston, has been given an appointment as instructor in experimental psychopathology.

MR. F. C. THOMPSON, Sorby research fellow of the Royal Society, has been appointed to the chair of metallurgy in the University of Manchester.

DISCUSSION AND CORRESPONDENCE

POSITIVE RAY ANALYSIS OF LITHIUM

APPLYING the method of positive ray analysis previously used[1] to the element lithium, I have recently found that it is composed of two isotopes. With positive ions from heated lithium salts G. P. Thomson and F. W. Aston have also obtained two components.[2] In my experiments the metal itself was evaporated in a small iron capsule, heated electrically. The two rays corresponding to atomic weights 6 and 7 were widely separated and appeared simultaneously as the heating current was increased. The absolute atomic weights could be checked by comparison with hydrogen atoms which were driven off from the metal; the setting on the maxima of the two components was so accurate that assuming a molecular weight of exactly 6 for the lighter, the heavier atomic weight was 7.00 within 2 units in the second decimal place, thus excluding the possibility of a simple element with the chemical atomic weight 6.94. Any further isotopes at 4, 5, 8 or 9 must be less than 2 per cent. of that at 7.

It was also observed that the proportion of the two components varies with the experimental conditions. The lighter at 6 is sometimes one quarter as strong as that at 7, but under other conditions of heating and pressure, it appears weaker and sometimes is only one twelfth as strong. To obtain a mean atomic weight of 6.94 the lighter should be only one sixteenth as strong as the heavier,

[1] SCIENCE, December 10, 1920.

[2] *Nature*, February 24, 1921.

but it has always been found stronger than that. This variability is of interest as showing that there are differences in the properties of the two isotopes, and of course the effect of mass differences should be specially evident, on account of the large mass ratio 6 to 7, in the case of lithium.

A. J. Dempster
Ryerson Physical Laboratory,
University of Chicago

A REMEDY FOR MANGE IN WHITE RATS

A simple method of keeping white rats for experimental work free from mange has been successfully used for some time in this laboratory. Sore ears, noses and tails are quite common in rat colonies and are not caused by deficient rations, as is often thought, but by a parasite known as the *Notoedres alenis*.[1]

The lesions on the ear, due to the mange produced by this parasite, are very characteristic, causing the whole ear to swell and become inflamed with the outer edge of the ear fringed with a cauliflower-like incrustation. On the tail the lesions resemble those on the ear, while on the nose they frequently take the form of horn-like protuberances. These lesions can be readily differentiated from other lesions by the application of insecticides. We have found that pine oil[2] applied with a soft brush will heal affected parts very quickly. This oil has not only very healing properties, but also strong antiseptic and anesthetic properties. Because of the latter care must be exercised in its application.

Since learning of the effectiveness of this oil it is the custom in this laboratory to wash our animal cages once a week with hot water and soap and to spray the sawdust used on the floor of the cages with the oil. In this way all lice and parasites which are ordinarily troublesome pests in animal colonies are kept down to minimum. If an individual rat becomes infested with lice it can be sprayed with the oil. An atomizer is used for this purpose.

Cornelia Kennedy
Minnesota Agricultural Experiment Station

[1] Private communication of Dr. B. H. Ransom, Bureau of Animal Industry, to Dr. J. E. Foster, formerly with the Mayo Clinic.

[2] The pine oil used for the experiments was furnished by the Newport Company of Pensacola, Fla., through the courtesy of R. C. Palmer, chief chemist.

IMPOSSIBLE (?) STORIES

Dr. Campbell's astonishment at the actual occurrence of the Mark Twain incident (March 4) "reminds me." I had looked upon the Irishman's astronomy as related by DeMorgan[1] as a good "manufactured" story.

Long life to the moon for a dear noble cratur
Which serves for lamplight all night in the dark,
While the sun only shines in the day which by natur
Wants no light at all as ye all may remark.

I was astonished to hear Dr. W. C. Farabee, of the University Museum, relate that in his South American expedition he found the Shipibos Indians worshipping the moon and that upon inquiry they gave the same reason as the Irishman.

Samuel G. Barton
University of Pennsylvania

[1] "Budget of Paradoxes," p. 242, 2d ed.

QUOTATIONS

INTERNATIONAL SCIENTIFIC ORGANIZATION

There is much to be said in favor of "teamwork," the concentration of many experts on a single problem or on one aspect of a problem. Some inquiries are so vast in scale that progress on any other lines can not be expected.

The modern telescope has made known the existence of myriads of stars beyond those visible to the unassisted eye. The counting and classification of this multitude can be achieved only by the concerted patience of many men in many countries, and may yet form the basis of some new conception of the order of the universe. Meteorology and geodesy, the attempt to plot the shape of our earth from a number of long base lines, must be international. The determination of standards is of little use unless it lead to universally agreed methods and results. The development and control of fisheries, the ap-