

excellent, the nearly life-size picture of a bullfrog that forms the frontispiece being particularly fine.

THE special feature of the *Zoological Society Bulletin* for October is the announcement of the reception at the park of a young African elephant of the small-eared species, from West Africa known as *Elephas cyclotis*. Few realize that specimens of the African elephant are far more uncommon in this country than mastodons and it is quite probable that this specimen is the first of the species seen in the United States. Other interesting animals on exhibition are the great anteater, echidna, crested screamers and ruffs.

*The Museum News* (Brooklyn) for October has for its longest article an account of the rearrangement of the insect room at the Children's Museum, to better adapt it to the needs of teachers and children. The collections comprise a very considerable number of the local insects, examples of the largest and smallest insects in various orders, and instances of striking differences between the males and females. These are supplemented by small groups showing life histories, interesting habits, protective coloration and mimicry. There is an extended series of lectures at the Children's Museum for pupils. Various changes are noted at the Central Museum, in the main already announced in SCIENCE. An interesting addition to the collection illustrating variation is a group of eleven ruffs, *Pavoncella pugnax*, in full breeding plumage, showing the striking differences found among these birds.

#### SOCIETIES AND ACADEMIES.

##### THE AMERICAN CHEMICAL SOCIETY. NEW YORK SECTION.

THE first regular meeting of the season was held at the Chemists' Club, Friday evening, October 6, 1905. The program of the evening was as follows:

R. H. WILLIAMS and H. C. SHERMAN: *The Detection, Determination and Rate of Disappearance of Formaldehyde in Milk.*

Using a method which permits approximate estimation of any amount of formaldehyde

greater than 1:160,000, it was found that even aqueous solutions of formaldehyde of 1:10,000 to 1:40,000 lose strength steadily on standing at room temperature, the loss being due to an actual destruction, and not merely to polymerization, of the formaldehyde; while when added to milk in the same proportion formaldehyde disappears ten to twenty times as rapidly as from water.

The hydrochloric acid and ferric chloride test is capable of showing 1 part of formaldehyde in 250,000 parts of milk. Sourness of the milk does not in itself diminish the delicacy of the reaction, but when milk is preserved by means of formaldehyde the latter will have largely disappeared before the milk becomes sour. Considerable data regarding the time required for the disappearance of the reaction is given.

The gallic acid test, applied to the distillate obtained from the milk after acidulation with sulphuric acid, is much more delicate than the hydrochloric acid and ferric chloride test, and gives more conclusive results with samples which have stood until the formaldehyde has largely disappeared.

J. B. WHITNEY and S. A. TUCKER: *Observations on the Preparation of Metallic Calcium by Electrolysis.*

The method used was that of J. H. Goodwin, and the attempt was made to improve the yield of the metal. The electrolyte was molten calcium chloride. The apparatus used at first was similar to Goodwin's and the results obtained agreed satisfactorily with his. It was found that the proper temperature limits were so difficult to maintain that a new form of cathode was devised, in which the temperature of the iron rod was kept down by water cooling. With this improvement the yield of calcium was increased to sixty per cent.

A modification of the cathode was tried in which the iron cathode was inclosed by an insulated graphite bell, the object being to prevent the oxidation and chlorination of the calcium as formed, but it was not found to work well in operation. F. H. POUGH,

Secretary.

SAN FRANCISCO SECTION OF THE AMERICAN  
MATHEMATICAL SOCIETY.

THE eighth regular meeting of the San Francisco Section of the American Mathematical Society was held at the University of California on September 30, 1905. During the morning session the following officers were elected for the ensuing year:

*Chairman*—R. E. Allardice.

*Secretary*—G. A. Miller.

*Program Committee*—E. J. Wilczynski, D. N. Lehmer and G. A. Miller.

Seventeen members of the society were in attendance; in addition to these there were present a number of high school teachers of mathematics who are not members of the society. The following papers were read and discussed during the two sessions of the section.

PROFESSOR C. A. NOBLE: 'Note on Loxodromes.'

DR. W. A. MANNING: 'Groups in which a large number of operators may correspond to their inverses.'

PROFESSOR M. W. HASKELL: 'A new canonical form of the binary sextic.'

PROFESSOR A. O. LEUSCHNER: 'On a new method of determining orbits.'

PROFESSOR ARTHUR RANUM: 'The representation of linear fractional congruence groups with a composite modulus as permutation groups.'

PROFESSOR E. J. WILCZYNSKI: 'On a system of partial differential equations in involution.'

PROFESSOR G. A. MILLER: 'The groups which contain only three operators which are squares.'

PROFESSOR R. E. MORITZ: 'On logarithmic involution, the commutative arithmetic process of the third order.'

PROFESSOR L. E. DICKSON: 'The abstract group simply isomorphic with the general linear group in an arbitrary field.'

PROFESSOR L. E. DICKSON: 'The abstract group simply isomorphic with the symmetric group.'

PROFESSOR M. W. HASKELL: 'On a class of covariants which give rise to birational transformations.'

The next meeting of the section will be held at Stanford University on February 24, 1906.

G. A. MILLER,  
*Secretary of the Section.*

DISCUSSION AND CORRESPONDENCE.

STEGOMYIA AND YELLOW FEVER—A CONTRAST.

THE magnificent work done in New Orleans this summer and autumn in fighting the yellow fever outbreak on the sole basis of the transfer of the disease by *Stegomyia fasciata*, and which has resulted in the practical extirpation of the epidemic long before the first frost, has convinced the most stubborn among the citizens of New Orleans and many other cities and towns throughout the south of the fact that only in this way can an epidemic successfully be handled. The acceptance of what has been termed 'the mosquito theory' is now almost universal, and this brings us to the contrast.

In the *New Orleans States* of May 2, 1902, appeared an article with the following scare headlines: 'Taxpayers to Protest Against Passage of Anti-mosquito Ordinance. Has been Resurrected. A Meeting To-night. Property Holder Discusses Taxation without Benefit.'

In the body of the article the following statements are made:

An effort will be made to resurrect the anti-mosquito ordinance at the next meeting of the committee on police and public buildings to which are entrusted for consideration all questions pertaining to public health. The measure was introduced last November by Mr. Cucullu at the request of Dr. Q. Kohnke, president of the city board of health. The measure was not popular, as the taxpayers contended that its enactment was but another form of enforced taxation. \* \* \* Because of its evident unpopularity, the promoters of the ordinance requested that it be not pressed, and for that reason it has remained untouched before the committee ever since.

In the meantime the endorsement of medical men and organizations has been sought with more or less success, so that now Dr. Kohnke feels that the chances are more favorable to call the measure up. \* \* \*

But there are many taxpayers who are determined to resist the passage of the ordinance, and should it be defended by the committee on police and public buildings at its meeting next Monday evening \* \* \* there will be taxpayers present who will strive to prove to Dr. Kohnke that the arguments in favor of this new venture are not so strong and convincing as he believes.