

commended that it remain the "Related Art Section."

The nominating committee reported the choice of Miss Joanna M. Hanson of our own department as chairman for the coming year. She was unanimously elected.

### Student Club Delegates

By Miss Anita Andrews

Pins which are to be offered to affiliated home economics club members were introduced and put on sale at the convention. The small bronze pin with the letters A. H. E. A. bears the symbol of the betty lamp. This pin is to be worn by all affiliated members including both high school and college girls.

Students at the convention were much interested in Miss Sadie Stark's report of the questionnaire which had been sent to all student clubs during the year. The report is to be printed and a copy will be sent to all affiliated clubs.

In the large group of students who attended the convention, there were representatives from many of the high school clubs. Because of the difference in objectives, it seemed necessary to separate the high school from the college clubs. The high school section chose its own officers who are to work with those of the college section.

In order to make it possible for all officers to be present at the next convention, the college section voted to choose its officers from the middle west. Those elected were Lucile Love, Ohio State University, Columbus, chairman; Mary Wilkenson, University of Wisconsin, Madison, secretary; and Estelle Morris, University of Michigan, Ann Arbor, news gatherer.

### Committee on Child Development

Miss Anna E. Richardson, field worker for the national committee on Child Study and Parental Education, presided at the round table on "Child Development and Parental Education, a Responsibility of Public Education in Home Economics."

The program for teaching some phase of child care and training in high schools was presented by Miss Birdie Vorhies, state supervisor of Home Economics of Nebraska. The plan for training teachers to function in this high school program was presented by Miss Cora B. Miller, head of the Home Economics Vocational Education Department at Iowa State.

The program outlined for adult training in public schools and in college extension service was presented as a second phase of the problem.

### Business Women's Section

By Miss Zorada Titus

Perhaps it would not be quite fair to say that the meetings held by the Business Section of the American Home Economics Association were the most interesting of any held at the convention, but certainly they were full of enthusiasm and a spirit of "looking forward."

From a very small beginning only a few years ago, the membership of the Business Section has grown to include 250 members.

One of the most important meetings of the group was held Wednesday evening at the Battery Park hotel. The theme of each speaker's report was "What of the Future?" Each speaker was optimistic for the success of the Business Section.

The report given by Miss Ina Lindman of Ball Brothers, Muncie, Indiana,

on fellowships was especially interesting because many of the commercial firms are sponsoring fellowships in our colleges and universities. Miss Lindman reported that these commercial firms, for the most part, are enthusiastic about the results they are obtaining through their fellowships, and that money so invested brings good returns.

Miss Marjorie Hesseltine, of Hill Brothers, New York, was elected chairman of the section for the coming year.

## Preparation for Nutrition Research

By MELBA NISEWANGER

**S**PECIAL Problems, F & N 359, will be offered for the first time, in the fall quarter, to undergraduate home economics students who are classified as seniors, according to Dr. Rosseien M. Arnold, director of research in Foods and Nutrition.

The purpose of the course is to develop in the student an understanding of the methods used in research work in nutrition, an appreciation of the library and the need for acquaintance with the literature, and to suggest possible problems of research.

Heretofore the course has been open only to graduate students, serving as an introduction to the choice of their individual research problem for the master's thesis, and especially conducted to develop correct technique, as well as initiative in planning and carrying on research problems. No outline was used in the course, but a few references which would furnish the girls with some background and methods of work were given at the beginning of the course, and the students permitted to plan their own experiments, with suggestions they might wish to adopt from the literature.

None of the problems taken up are new, but each class member makes her own selection of a problem from standard problems previously worked out in animal experimentation. As soon as each student has a plan in mind for her problem, she presents it to the director, and if satisfactory she proceeds with it. Throughout the course, reports are made to the class by each student as her experiment progresses, so that the entire group follows the work and benefits from the accomplishments of the individual members.

This course involves the study of two types of special problems:

(1) Those concerned with animal experimentation.

(2) Those concerned with human metabolism.

The animal experimentation problems include:

(a) Development and cure of vitamin deficiency conditions in the rat and in the guinea pig.

(b) Comparison of rates of growth in rats on diets of varying protein composition.

The human metabolism work is carried on by each student upon herself or upon a "willing subject." Weighed amounts of food are eaten; urine and feces collected. Nitrogen determin-

ations are made on foods and excreta, and the nitrogen balance is calculated.

With eight graduate girls in the class the past year, it was possible to carry on four experiments—two girls working independently on the same problem, so that results in each experiment were checked. During the work of the course seven of the students decided upon the problem they wished to work out for their master's theses, of which the two following are representative of the very interesting studies made:

(a) The effect of lettuce in the diet of underweight college girls, with special reference to hemoglobin, red corpuscles, and urinary acidity.

(b) The effect of grape juice on the nitrogen retention and urinary acidity of normal adults.

In the latter study, carried on by Louise Pickens, M. S., '27, six experiments of eight to ten days' duration were conducted on two young women to study the effect of grape juice on nitrogen retention and urinary acidity.

A diet of crackers, cheese, apple butter and almonds was used in the three basal experiments. Grape juice supplemented this diet through three other experiments.

A small but not significant change was demonstrated in the urinary acidity where grape juice was used. A slight nitrogen retention was observed in all experiments. A greater nitrogen retention was noted during the grape juice experiments. This increase is thought to be the result of the protein sparing action of the sugar in the grape juice. Further research to confirm these findings is now in progress.

None of the graduate students who enrolled in this course had previously taken any training in research methods, and consequently the course was necessary as an introduction to the individual work for the thesis. It is, therefore, the hope of the department, in offering the course to undergraduate students, to give those girls who intend to take up graduate work later, opportunity to acquire a background in research methods and technique before entering the graduate school. "It is also desired, however," said Dr. Arnold, "that a large number of other home economics students will be interested in taking the course, since in this way the individual might discover whether or not she ever would care to do research work."