handling the situation. Well-balanced programs of work, sleep and recreation are suggested. Some kind of recreational extracurricular activity is urged, even in their first year. These students are advised to go in for glee-club work, dramatics, or activity among students in the local churches, since most of the Berkeley churches have student pastors who cooperate closely with us in handling such problems. The statistics that have been compiled show that the bulk of these students are non-fraternity men."

Typical of this situation was the case of a nineteen-year-old boy who might be called Tom. He came to the psychiatrist complaining that he could not sleep.

Curing Insomnia

Tom had had an excellent school record and had been a "big man" of his year at the rural high school he had attended. He came to the university without enough money to see him through his course, so he got himself a job washing dishes for his room and board in a fraternity house. He was barely passing in his classes and the first mid-term examinations worried him greatly. He was given a "cinch" notice in chemistry. He didn't go out for any of the teams, and limited his exercise to the least possible amount of work in the gymnasium. He had not been to a single party or student gathering since coming to the university, and did not know more than twenty-five students on the campus, and not any of them well.

Feeling that he was out of his depth he began looking around for help and so came to the psychiatrist. The first thing that was done to arrange a change of work, so that he could meet other students at meal times and gain more acquaintances in that way. Next he was put in contact with an PLANT PATHOLOGY

understanding member of the faculty in the department in which he expected to major. He was given a note to the student pastor of his church affiliation.

Then he was helped to get a minor part in one of the university dramatic productions.

Finally, he was given advice and help in planning for himself a well-balanced program of study, exercise, food and recreation. In this way Tom was helped to find friends and a place for himself in the complicated university life.

Tom's problem was apparent, even to himself, and the treatment consisted largely in practical advice and bolstering of his self-esteem. The causes of some of the other students' difficulties were not so easy to find, and required more elaborate psychiatric treatment.

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Giant Cactus Afflicted With Plant Tumors

THE SOUTHWEST'S giant tree cactus, or sahuaro, is susceptible to crown gall, a tumorous growth caused by bacteria, that afflicts many species of plants. Some of the growths on the cacti become very large, Prof. J. G. Brown and M. M. Evans of the University of Arizona, have reported to *Science*. One, found attached to the root of a huge cactus by a short stalk, had a diameter of ten inches and weighed eight and one-half pounds.

The discovery of these gall-afflicted cacti in areas far from any human cultivation, present or past, is taken by Prof. Brown as evidence against the theory that crown gall was introduced by pioneer Spanish missionaries.

Science News Letter, October 7, 1933

ZOOLOGY

Scientists to Probe Private Life of Hibernating Bear

THE PRIVATE life of a black bear during the period of hibernation is to be the object of study next winter by Frank Childs, district ranger of the Old Faithful District of Yellowstone National Park, with the assistance of Ranger Ed O'Donnell.

Mr. Childs says one of the favorite questions of Yellowstone visitors is "What do the bears do in the winter?" So he plans to lure a yearling bear into an artificial den in which, like the gold-

fish of publicity fame, he will be under observation. The hibernating period in the Yellowstone usually is from November to March.

To make possible this study, Ranger Childs is burying a 50-gallon barrel in the ground, putting straw and hay in it to make an inviting bed, and completely closing it except for a den leading into the barrel. Into this the yearling black bear will be enticed.

From the top of the barrel nearest the surface an oblong slit has been cut which will be accessible from the surface. Throughout the winter Ranger Childs plans to make regular trips to the artificial bear den to observe his sleeping protegé. He believes that in this way he will get material regarding bears in their native state which can not be obtained from a study of the hibernating habits of bears in captivity.

Ranger Childs also has rigged up two smaller barrels in similar fashion for the prospective use of a male and a female marmot so that the hibernating habits of these animals also may be studied. He used two barrels as he says is not sure that Mrs. Woodchuck allows company during the winter.

Science News Letter, October 7, 1933

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