Two views of the laboratories of electrical engineers under the supervision of Prof E. R. Page are at right, while below is Prof. F. G. Tappan, director of the school of electrical engineering. On the opposite pages are the studio and control room of WNAD, university broadcasting station. At the piano is Miss Marian Mills, queen. Bernard Doud is at the mike, Byron Cole and Charles Ludwick are lending ear

## Electrical engineering

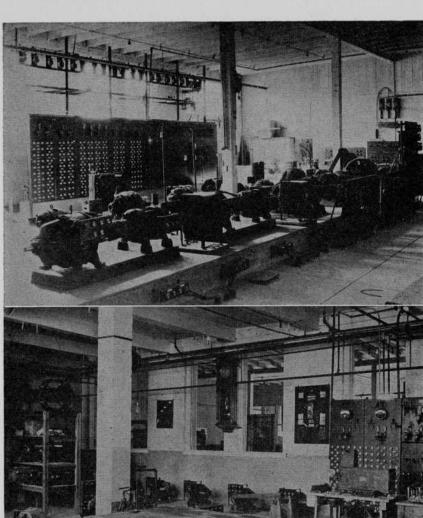
THE school of electrical engineering was organized in 1908, and was one of the four charter member schools of the engineering college. The first B. S. in electrical engineering was awarded in 1910. From one graduate in 1910 our school grew until twenty five men received their B. S. degrees in electrical engineering in 1930. More men have received a B. S. in electrical engineering than any other engineering degree, since electrical engineering got off with a flying start, about twenty years ago.

Electrical engineering as a profession dates back to 1869 when Edison and Pope put out their shingles with the title, "Electrical Engineers," after their names. They were telegraph engineers. This was the only division of electrical engineering at that time. Now, scores of fields continually expand, such as research, design, development, manufacturing, installation, operation, servicing,

sales, transportation, generation and transmission of power, and communication by wire and radio, code, speech, music, and sight. Each of these specialties is increasing in complexity and in scope more and more rapidly with the mechanization and electrification of every day life. Electricity is a medium for the transmission of energy and not a primary source of power, and thus is tied up with mechanical engineering for primary sources of hydro-electric, steam, gas, and gasoline power, and with civil engineering for construction, transportation, and transmission. In the same way that mechanical engineering was an offshoot from the much older mother profession of civil engineering, so electrical engineering is an off-shoot from mechanical engineering. All electrical engineering schools emphasize the foundation courses in their curricula.

At the beginning of 1932, Mr C. V. (TURN TO PAGE 225, PLEASE)

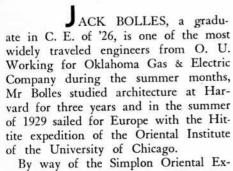




Jack Bolles, '26 eng. (civil) has served on the Hittite Expedition, has done restoration work for the Carnegie Institute at Washington, D. C., and has completed the arduous work of mapping the mountainous city of Yaxchilan, Mexico. The photograph shows Mr Bolles, comfortably clad, at work in Alishar in Anatolia

## Jack Bolles

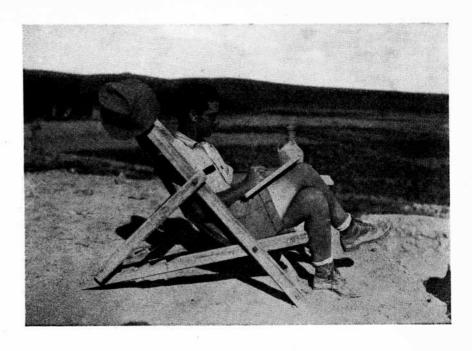
BY WYATT HENDRICKS, '32



press he went directly from France to Constantinople, later to Ankara, the capital of Turkey and Malatya on the Euphrates river. At Malatya he engaged in a survey of the remains of an old Hittite village. Here his work was interfered with by the governor of Malatya placing a guard around his camp under the pretense of protecting him in the frequent uprisings there, but with the apparent purpose of seeing that the sculpture was not carried to the Museum in Ankara. An old Turkish custom that did not impress the Oklahoman so favorably was the washing out of one's mouth with soap and water before taking food. The host is seriously offended when this is not done.

Near Alishar a mapping of the house levels of ancient civilization was made. Returning to Ankara Mr Bolles attended the presidential ball given in honor of Mustapha Kemal Pasha.

His next work took him to Luxor, Egypt where he was assistant architect to Professor Uvo Hoelscher, a prominent German archæologist, in making restoration drawings of the Temple of Medinet Habu, which was built by Rameses III. While in Egypt, an attempt was made to travel from Aswan, up the Nile in a sail boat.



But luck was against them for on the third day a sand storm wrecked them on the rocky shores of Nubia. By constant bailing they were able to return to Aswan.

After a short visit with a friend in Syria Mr Bolles hurried to Cluny, France by way of Athens, Rome, and Milano, where he worked during the summer of 1930 for Professor Kenneth Conant of Harvard in the excavation of the famous cathedral and monastery there. His job was to measure all the existing structures and to make a one-eighth inch scale plan of the site showing the remaining portions of the buildings.

Returning to Harvard to resume his studies, he received an appointment from the Carnegie Institute of Washington, D. C. to make a restoration drawing of the Observatory So at Chicken-Itza, Yucatan. Completing his work there in March, he was assigned the task of mapping the mountainous city of Yaxchilan, Mexico.

As Yaxchilan had never been mapped, it was a laborious job cutting line and finding buildings covered by dense jungles but the resulting map showed one hundred structures that were not known to exist. The return trip from Yaxchilan was very exciting. With thirteen men in one dugout canoe the rapids on the Usumacintla river, between Yaxchilan and Pidras Neyras were shot without a mishap.

Mr Bolles is now completing his thesis for the degree of master of architecture at Harvard and after a few months work in Yucatan and New Mexico will return to Oklahoma where he will take up the practice of architecture in Oklahoma City.

## **ELECTRICAL ENGINEERING**

(CONTINUED FROM PAGE 222)

Bullen, who was associate professor of electrical engineering, and who had been with us for four and a half years, resigned to become head of the department of electrical engineering at the Texas Technological college at Lubbock, Texas. With the beginning of the second semester of this year, Mr C. L. Farrar, who had been connected with the University of Arkansas and the engineering experiment station there, came to carry on the work which Professor Bullen had been conducting. Professor Farrar has had some very valuable and extensive experience in power transmission, talking movies, electrical engineering research, and radio broadcasting. His duties are very much the same as those of Professor Bullen since he is technical director of WNAD, in charge of undergraduate electrical engineering research work, and teaches a graduate course in radio communication and several undergraduate courses.

Mr O. W. Walter, who was associate professor of electrical engineering at the University of Oklahoma for a number of years but left to go with the Hall Electric Heating Company of Philadelphia, resigned his position there in September to become head of the department of electrical engineering at the College of the City of New York.

During the month of January, 1932, after the departure of Mr Bullen and before the arrival of Mr Farrar, C. K. Ittner, 1930, left his filling station temporarily and helped us out while keeping a watchful eye on the electric sign.