

# Bone Density Measuring Valuable Tool—Schraer

The accurate measuring of bone density may become a valuable tool to the medical profession in diagnosing various human skeletal ailments, Dr. Harald Schraer, research associate in physics, believes.

Dr. Schraer is heading a research program that is designed to establish the scientific validity and accuracy of a unique bone density computer. The machine was devised by the late Dr. Walter N. Brown Jr., who was a research associate in applied physics. Dr. Pauline Beery Mack, formerly director of the Ellen H. Richards Institute at the University, initiated the bone density work.

**Schraer Receives Grant**  
To continue the work during the coming year, Dr. Schraer has received a \$7,958 grant from the public health service.

"Once its accuracy is established, the machine probably will be the best means of determining mineral content of bones, in living subjects," Dr. Schraer predicts. "So far there has been no way of measuring the exact loss of calcium the body suffers except by metabolic balance tests, a tedious and expensive method that is impractical for general use."

Accurate bone density measurements will be particularly valuable in assessing bone mineral content of the aged who are prone to bone disorders, and in diagnosing many diseases.

Small laboratory animals will be used to establish the accuracy of the bone density computer. Through special diets varying in calcium content, changes will be caused in the mineral content of the animal's bones.

**Factors Affect Film**  
The bone density computer is a machine which extracts information from an X-ray film. This information can be translated in terms of bone content. The X-rays are taken according to a prescribed procedure which in-

cludes placing an aluminum alloy wedge, which serves as a standard, next to the bone being X-rayed.

Any number of factors can affect the film itself. Different X-ray machines blacken film in varying degrees and film development can not be precisely controlled.

Although the wedge image appearing on the film is subject to film changes, the wedge itself remains a constant standard against which film variables can be checked.

When an X-ray film is taken, the bone absorbs X-rays causing the film to become lighter where the absorption occurs. The more transparent the film, the more dense the bone is.

**Einstein Center**  
Dr. Schraer's research is a continuation of work he and his wife, Dr. Rosemary Schraer, started two years ago at the Albert Einstein Medical Center in Philadelphia. He came to the University last February.

Dr. Schraer and Dr. James M. Lawther, a part-time research associate at the University, have a one year \$5,624 Public Health Service grant to work on the development of a new bone density evaluation technique based on the planigraphic technique, a means of selecting in a subject a layer of tissue or a structure which will be more clearly seen on the X-ray film than the tissue above or below the selected layer.

Pearl divers of the Polynesian islands are able to hold their breath for as long as five minutes.

# Hospital—

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body makes use of the service. This is higher than the 35 to 40 per cent average for good health services at other schools. However, he said, this may be attributed partly to the fact that the University is in a non-urban area and other facilities aren't as easily available to students here as they are at schools situated in metropolitan areas.

Dr. Glenn expects the east wing, containing 30 beds and a new kitchen, to be ready for occupancy for the second semester. He also expects to receive the ambulance, a gift donated by last year's senior class, at the same time.

**Benefits Available**  
Many students are not aware of the free benefits they are entitled to. These include, a complete physical examination upon entrance in the University, routine medication, surgical dressing, four x-ray examinations and any standard laboratory test ordered by a member of the staff, and seven days free treatment in the infirmary each semester. There is a charge of \$3 for each extra day. Students also must pay for unusual drugs and needles.

Students may also secure the aid of the psychiatric service. This is done by appointment and can also be arranged through other counseling services and the dispensary. Since establishment of the counseling service in 1947, more than 2246 students have been given treatment or advice.

**Dental Exams Given**  
Routine dental examinations are given to new students and foodhandlers at the beginning of the year. The purpose of these is to check for diseased teeth and mouths. The student is warned of these conditions and told to see his own dentist. Some cancerous growths have been detected during these examinations.

It would not be feasible, according to Dr. Daniel M. Lonberger, University dentist, to attempt a full time dental program unless there was a school of Dentistry at the University.

# Harnett Authors Magazine Article

Dr. Arthur L. Harnett Jr., professor of physical education, is the author of an article, "Ten Years of Community-School Health Education Workshops," published in the September issue of the American Journal of Public Health.

The article is a discussion of the health education workshop held in Pennsylvania, starting in 1945 at the University and expanding until at present six are offered each summer at Pennsylvania colleges and universities.

# Prof Will Study German Engines

Dr. Paul H. Schweitzer, professor of engineering research, will spend December in Germany.

He will study engine developments of interest to Army Ordnance, represent the Society of Automotive Engineers in coordinating engine nomenclature between the Society and the German Dinorm standardization body, and study the Meurer system of diesel combustion at the MAN plant in Nuremberg.

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# HAPPY TALK

As we all know, conversation is terribly important on a date. When lulls in the conversation run longer than an hour or two, one's partner is inclined to grow logy—even sullen. What, then, does one do?

If one is wise, one follows the brilliant example of Harlow Thurlow.

Harlow Thurlow prepares. That is his simple secret. Before the date, he goes to the library and reads all 24 volumes of the encyclopedia and transcribes their contents on his cuffs. Thus he makes sure that no matter what his date's interests are, he will have ample material to keep the conversation alive.

Take, for example, Harlow's first date with Priscilla de Gasser, a fine, strapping, blue-eyed broth of a girl, lavishly constructed and rosy as the dawn.

Harlow was, as always, prepared when he called for Priscilla, and, as always, he did not start to converse immediately. First he took her to dinner because, as everyone knows, it is useless to try to make conversation with an unfed coed.

So he took her to a fine steak house where he stoked her with gobbets of Black Angus and mounds of French fries and thickets of escarole and battalions of petits fours. Then, at last, dinner was over and the waiter brought two finger bowls.

"I hope you enjoyed your dinner, my dear," said Harlow, dipping into his finger bowl.

"Oh, it was grandy-dandy!" said Priscilla. "Now let's go someplace for ribs."

"Later, perhaps," said Harlow. "But right now, I thought we might have a conversation."

"Oh, goody, goody, two-shoes!" cried Priscilla. "I been looking everywhere for a boy who can carry on an intelligent conversation."

"Your search is ended, madam," said Harlow and pulled back his sleeves and looked at his cuffs to pick a likely topic to start the conversation.



"I thought we might have a conversation!"

Oh, woe! Oh, lackaday! Those cuffs on which Harlow had painstakingly transcribed such diverse and fascinating information—those cuffs were nothing now but a big, blue blur! For Harlow—poor Harlow!—splashing around in the finger bowl had gotten his cuffs wet and the ink had run and not one word was legible! And Harlow broke out in a night-sweat and fell dumb.

"I must say," said Priscilla after several silent hours, "that you are a very dull fellow. I'm leaving."

With that she flounced away and poor Harlow was too crushed to protest. Sadly he sat and sadly lit a cigarette.

All of a sudden Priscilla came rushing back. "Was that," she asked, "a Philip Morris you just lit?"

"Yes," said Harlow.

"Then you are not a dull fellow!" she cried and sprang into his lap. "You are bright! Anybody is bright to smoke such a perfect doll of a cigarette as today's rich, tasty Philip Morris, which is brimming-full of natural tobacco goodness and fresh unfiltered flavor.... Harlow, tiger, wash your cuffs and be my love!"

"Okay," said Harlow, and did, and was.

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