



#### LIKE BEARDS OF THE DWARFS

*These are barley roots raised from seeds dusted with chemicals and then grown two weeks in non-nutritive sand. Left to right: roots from undusted seeds, roots from seeds dusted with 2.5 parts per million of naphthylacetic acid, roots from seeds dusted with higher, but less effective concentrations.*

there are some curious parallelisms between California woodpeckers and human beings—even rather “advanced” human beings. Unlike other woodpeckers, the California species is decidedly socialized—almost a communist in some respects.

The bird is an acorn-storer, jamming the nuts into holes which it drills into trees, telephone poles, and buildings. But the enterprise is communal: the woodpeckers all store their acorns in the same tree trunk, and help themselves at will when they are hungry. They act together to drive off marauding squirrels that would steal the stores.

Instead of working strictly in pairs to chisel out holes for nesting, they labor in little groups of threes and fours. Even in feeding the young, there may be supernumerary adults on the job. Also, they excavate a different type of hole, not used for nesting but for “residence,” into which as many as half-a-dozen may occasionally crowd themselves.

For all their prudence in gathering into barns, the California woodpeckers are by no means always wise. They will drop acorns into hollow places where they can't recover them. They will lay up far more food than they are ever

likely to use. And they will carefully store such things as pebbles—which they can no more eat than we can eat gold bars.

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#### HYGIENE

### New Health Phrase: Vocational Hygiene

**A** NEW phrase and a new viewpoint about health have put in their appearance. The phrase is “vocational hygiene,” which is the title of a new book by Daniel Caplin, assistant director of health education for New York City, and S. G. Ocean, acting chairman of the health education department of the Murray High School in the same city.

The point about this phrase and the book itself is that the innumerable discussions and studies of industrial hygiene and occupational diseases have nearly all been undertaken from the viewpoint of having outside agencies—health departments and industrial concerns—protect the worker's health.

The Caplin-Ocean book, while not minimizing the importance of this type of health protection, approaches the sub-

ject from a different angle and tells what the worker himself can and should do to protect his health. The book is designed as a text for vocational schools, but seems worth even wider reading and study.

Diet, fatigue, posture, personal cleanliness, recreation, outdoor exercise and safe working habits are health factors which no employer, however well-intentioned, and no health officer, however vigilant, can do as much about as the worker himself.

Safety devices and protective appliances—goggles, for example, and respirators—do not protect the worker nor prevent accidents if they are not used, or are used incorrectly. When first aid kits and medical departments are provided, it is still up to the worker to use them to prevent infection if he cuts his finger or gets a cinder in his eye.

Part of vocational hygiene, it appears from the book, is the proper use of tools to prevent accidents. Another part is the wearing of suitable clothing while on the job. Both a loose cuff and a dangling necktie seem obvious hazards but probably their very obviousness causes them to be forgotten at times.

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#### AVIATION

### Device Shows Dispatchers Direction of Incoming Planes

**A** NEW device which, by determining the direction from which an approaching airplane's radio transmitter is sending signals, enables airplane dispatchers to know the direction of approach of incoming planes though weather conditions may make the planes invisible has been developed by scientists of the Bell Telephone Laboratories.

Intended as an additional safeguard for private and commercial radio-equipped aircraft, the new device locates a tiny green light speck on a frosted glass screen in accordance with the direction from which the plane is coming. The points of the compass are marked around the screen's edge.

The system provides for indications on any ten wavelengths which may be selected remotely. As each pilot talks to the control tower at his destination, the spot of light waves moves instantly to its correct position on the screen of a cathode ray tube. A pick-up antenna of special design is employed; this may be situated at any remote point. A single telephone line connects antenna and dispatcher.

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