

minded person. But the exaggerated case serves to show up absent-mindedness, with all its curious traits, just as a picture thrown on a large screen is easier to study.

Moreover, the average person struck once in a while by absent-mindedness does just as strange things as the genius.

The street car company in the National Capital of the United States, where riders include Congressmen, tourists, government clerks, job seekers, wives and school children, gathers in 12,000 to 15,000 lost articles a year. The assortment includes anything and everything from babies' bottles and bird cages to false teeth.

"Oh, yes," nods the young woman in charge, "people do take teeth out when they hurt, and lay them down on the car seat, and walk right off without them."

### Children Too

School children are particularly absent-minded and can lose things that would do credit to any genius' record. A dozen baseball bats were abandoned by one young ball team, and never even called for.

The Japanese weather man's study shedding light on the weather's role in promoting forgetfulness is not the first scientific attempt to link weather with human conduct. Some years ago, Dr. Edwin G. Dexter made a series of statistical studies, comparing weather reports against police records, against banking clerks' errors, against children's behavior in school. The weather, as he had suspected, does tip the scales in favor of one line of conduct or another. His curves and charts showed it.

### Humidity Causes Errors

Dr. Dexter put his surprising discoveries into a book "Weather Influences," now out of print but still often quoted. He became a physician in the U. S. Veterans' Bureau at Washington, and abandoned his inquiries into what the weather does to nerves, efficiency, energy, and emotions.

To his work, done thirty years ago, the new investigation in Japan adds confirmation of the weather's power to help or hinder. Dr. Dexter found, for example, that bank clerks make more mistakes in their calculations on humid days than on dry ones. Cloudy and rainy weather also yielded a harvest of errors. The strategic factor, he concluded to be attention. The clerk bending over his accounts has trouble in bad weather to keep his mind on his work, just as the wife returning home from shopping is now shown to be extra-likely to lose her head, figuratively, and her umbrella or purse, literally.

*Science News Letter, September 21, 1935*

### ENTOMOLOGY

## 3300 Ants in Single Colony Are Part Male, Part Female

**S**EX mixups of a most fantastic kind, involving at least one-fourth of the population of a large colony of ants, were described by the noted American entomologist, Prof. William Morton Wheeler of Harvard University, before the meeting of the British Association for the Advancement of Science.

The colony was discovered on the British-owned island of Trinidad last spring, by Dr. N. A. Weber, and was studied jointly by Dr. Wheeler and himself. Formal publication of their results will be made in the United States at an early date.

The mixed-up condition consists in each affected insect's being partly male and partly worker-female or "neuter." In many, the front part of the body looks like that of a male and the back part has a female appearance. In others, "islands" of femaleness appear in the midst of male areas, and vice versa. No two of the insects thus far examined are alike in either the degree or distribution of their assorted sexualities.

In the particular species to which this colony belonged, Dr. Wheeler explained, the males have longer legs than the fe-

males. Some of the "sex-assorted" ants had male legs on one side and female legs on the other. The result was that they could travel only in circles, like the famous but fabulous "side-hill gouger" of Western myth.

In all, Dr. Weber has counted some 3300 of these peculiar ants, all of them being offspring of the same queen ant, who was herself apparently normal in every respect. It is the only instance on record of anything like so large a proportion of "mixed-sex" ants in a colony. In fact, during the past 80 years, only 75 such ants have been found among all the hundreds of thousands of specimens that have been examined by entomologists. Only one other instance in the history of modern science can be compared with it, the discovery of a similar phenomenon in a colony of bees near Lake Constance, by the famous German scientist von Siebold in 1864.

Insects and other animals that display such a patchwork of sex characters are known to science as "gynandromorphs." Taken to pieces, this tough-looking Greek word means "female-male-forms."

*Science News Letter, September 21, 1935*

### SEISMOLOGY

## Deep Earthquakes Show Flaws 62 to 180 Miles Below Crust

**D**EEP-focus earthquakes occurring hundreds of miles inside the earth instead of merely in the comparatively thin upper crust of rock are being intensively studied by seismological scientists, Dr. F. J. W. Whipple of Kew Observatory, Richmond, Surrey, told the meeting of the British Association for the Advancement of Science.

Most earthquakes recorded at the seismological stations throughout the world originate, Dr. Whipple said, less than 31 miles below the earth's surface. Quakes at deep foci start many times deeper than this.

In Japan, especially, he pointed out, studies show that these deep quakes are distributed in a very remarkable way, indicating that there exist well-defined flaws in the earth at depths of from 62

to 180 miles and far below the level of isostatic compensation.

Such new findings are among the most spectacular of recent advances, Dr. Whipple stated. The reason is that present beliefs tend to picture the solid rocky crust of the earth as floating on a denser semi-plastic material lower down. As one part of the crust sank down into the material, there was a compensating uplifting somewhere else on the earth. Mountain ranges such as the Himalayas appear still to be undergoing this lifting process.

That the underlying semi-plastic material might itself have well-defined flaws still lower was hardly considered until the recent discoveries based on the way earthquake waves are transmitted through the earth.

*Science News Letter, September 21, 1935*