obtain code numbers and get duplicate keys on motor cars. A copy-proof lock whose keys can be obtained from a central manufacturer after scrutiny of credentials should, it is hoped, reduce crime. While figures vary, police officials have good reason to feel that a majority of burglaries are committed with the aid of stolen cars.

Science News Letter, March 16, 1935

INVENTION

Razor Blade That Lasts Six Months Shown

A RAZOR blade that lasts six months, a piano an invalid can play in bed and radio for the deaf are the features of this year's British Industries Fair now in progress at London's two largest exhibition arenas—"Olympia" and the "White City."

The razor blade which lasts six months is exhibited by an American, Alfred Schmidt of New York City. Its blade consists of five feet of stainless steel ribbon wound up like a watch spring. A twist of the knob brings a new section into place for shaving.

The "invalid" piano makes it possible for a bedridden person to play the instrument providing he or she can be propped up just a little. Secret of the device is a highly-extensible and adaptable keyboard which comes out over the bed to the hands of the patient.

Science News Letter, March 16, 1935

PHYSICS

Scientists May be Searching Vainly for Negative Proton

ALTHOUGH perhaps vainly, because they live in the wrong part of the universe, scientists are hunting for another fundamental particle—the negative proton—out of which atoms, and hence all matter, may be constructed. To explain and simplify present concepts of how the cores of atoms are composed which need protons, electrons and neutrons to fill the picture, scientists hope to find the negatively charged counterpart of the positively charged protons.

This, in substance, is the conclusion of Prof. George Gamow, world-famous Russian scientist, now visiting professor of theoretical physics at George Washington University, Washington, D. C.

Dr. Gamow who first predicted the levels of energy now found within the atom nucleus also predicted such negative protons still to be found.

Asked at the meeting of the Chemical Society of Washington why the negative proton is still unfound in spite of sensitive experiments to find it, Dr. Gamow said:

"The search for the negative proton is difficult because man and the planet on which he lives may be in the wrong part of the universe. We live in a world where protons and electrons exist. Yet if the universe as a whole is electrically neutral there must be other regions and worlds where the opposite is true; regions where negative protons and the newly-discovered positrons make up atoms.

"One can think," he continued, "of the splitting of some giant star into two parts. One component might be like our sun and its planet earth. The other half might have charges of the opposite sign. The first part would be a region like that found on earth where protons and electrons predominate. The latter might be the negative proton world."

Science News Letter, March 16, 1935

COSMOLOGY

Man Just an Accident Says Sir Arthur Eddington

THE universe was apparently designed for other purposes than man, Sir Arthur Eddington, Cambridge astronomer, concludes in his latest book (*New Pathways in Science*—Cambridge U. Press).

Admitting that the scientific picture of the universe misses the point in that it does not include the senses, beauty, morality, the presence of God, etc., Sir Arthur nevertheless emphasizes the idea that man is an accident.

Matter normally collects in big masses with excessively high temperatures, but, he said, "by a trifling hitch not of serious consequence in the development of the universe some lumps of matter of the wrong size have occasionally been formed."

These lumps, one of which is the earth, lack "the purifying protection of intense heat or equally efficacious cold of space."

"Man is one of the gruesome results of this occasional failure of antiseptic precautions," Sir Arthur said.

The universe will end in "one stupendous broadcast" and will come when all matter is dissolved.

"About every 1500 million years this ball of radio waves," Sir Arthur explained, "will double its diameter and will go on expanding forever. I may describe the end of the physical world as one stupendous broadcast."

Science News Letter, March 16, 1935

PSYCHOLOGY

Long Radio Blurbs Hard to Remember

HOPE for radio listeners who are bored by long detailed advertising announcements comes in the report of Drs. F. H. Lumley and C. H. Calhoon, of Ohio State University, that short radio talks with few ideas are remembered best.

Long lists of addresses, prices, telephone numbers and facts about merchandise cannot be remembered by the average listener and speaking slowly will not help much to "put them over," experiments conducted with 946 grade and high school children revealed. The results are disclosed in the current issue of the *Journal of Applied Psychology*.

Most familiar words were used in the tests, and memory was tested immediately after presentation. The average number recalled by each child ranged from 2.1 words for third graders to 4.7 for high school seniors. They remembered the same number of words from a list of six and from a list of ten, it was found.

If radio messages are to be remembered, it appears to be more important for the advertiser to limit the number of ideas included than it is for the announcer to speak slowly. Slow speech seemed to make memory easier for the