## Studies Race Mixture

Providing the original stock is sound, inbreeding among human beings results in no deterioration, physical or mental. Nor does mixture of widely differing races produce an inferior type.

Such are the conclusions of Dr. Harry L. Shapiro, ethnologist of the American Museum of Natural History, from recent study of the inhabitants of Norfolk Island, a small island north of New Zealand. They are Tahitian-English half-castes, whose history dates back to the mutiny of the crew of the ship Bounty in 1789. At present there are more than 600 of these islanders and they are the descendants of twelve Tahitian women and nine Englishmen, part of the mutinous crew.

In 1789 the crew of the Bounty, a vessel sailing in the southern Pacific, mutinied, casting the captain adrift in a small boat and making for Tahiti. Here nine of the crew, fearing capture, sailed to Pitcairn, a small unin-habited island east of Tahiti. They took with them twelve Tahitian women and nine Tahitian men. On Pitcairn the women were divided among the Englishmen as wives. The Tahitian men were allowed no women. This led to jealousy and the Tahitian men were killed, leaving no descendants. The Tahitian women and the Englishmen, all of them sound stock, established a line of half-castes. were completely isolated and they multiplied rapidly.

By 1856 the population was too great for the small space of Pitcairn. More than 150 moved to Norfolk Island, which was at that time uninhabited. Today there is a population of 600 on Norfolk Island and 175 on Pitcairn, all the descendants of the original Tahitians and English. It is of the Norfolk Islanders that Dr. Shapiro has made a study.

Dr. Shapiro has found these islanders to be of sound physique, taller than the average English and Tahitians, and of good mentality. There is only one feeble-minded person, he said, on Norfolk Island. Their education has of necessity been rudimentary for generations, but they are now provided with teachers by the Australian government under the jurisdiction of which they come. And the teachers are getting excellent results.

Thus, according to Dr. Shapiro, the Norfolk Islanders prove that, when the stock is sound to begin with, intensive in-breeding makes for no de-

(Just turn the page)

PHYSICS

DAYTON CLARENCE MILLER

# Physicist and Flutist

Like many great scientists, Dr. Miller has another side to his character. He is a musician. His specialty is the flute and the organ. But he is more than merely a skilled performer, for if you visit him at Cleveland, he is just as likely to show you with equal enthusiasm the phonodeik, the interferometer, or his collection of flutes

The first is an instrument of his own invention for photographing sound waves, including those from his precious flutes. The second is the instrument which others have used to attempt to measure the motion of the earth through the ether. The failure of Prof. Michelson to detect any such ether drift when he performed the experiment many years ago was one cause which led to the theory of relativity. And lately Dr. Miller has repeated the experiment, at Mt. Wilson and at Cleveland, to see what it does give, if one does it without any previous expectations of what he might

Finally, the third of his treasures, the collection of flutes, may really be the most important in the back of his mind, for that is his hobby. Who doesn't think his hobby a bit more important than his work, even if he won't admit it? The chief of the collection is a flute of gold.

Dr. Miller was born in Strongsville, Ohio, on March 13, 1866. He is a graduate of Baldwin University and Princeton, for he took his D. Sc.

(Just turn the page)

## Freud Still Active

By SANDOR FERENCZI

Dr. Ferenczi is a noted psychoanalyst of Budapest, and associate of Sigmund Freud.

Sigmund Freud, who has devoted forty years to psychoanalysis in the face of opposition from all sides, is now past his seventieth birthday, but he is as hard at work as ever. Many false reports have been circulated in America regarding his illness. The fact is, that three years ago he was successfully operated on for a malignant condition of the jaw. Recovery has been complete and most satisfactory, and now, in spite of advanced age, he is in full vigor of body and mind.

Each year he publishes a new scientific work. Lately he has tried to sum up, to synthesize, the enormous quantity of his psychoanalytic observations. Freud is never narrow or orthodox, as are some of his former pupils. He does not hesitate to alter his conceptions freely, provided new experiences and observations compel him to do so.

No recent intellectual movement has been so badly misunderstood and distorted as the psychoanalytic movement originated by Professor Freud. Quite by accident of circumstance it fell to the lot of Freud to revise our knowledge of the sexual life of man and its development, a field of science neglected for generations. Freud, by his extensive experience in clinical psychology and by the introduction of new methods of observation, such as dream interpretation and free-association, was able to place it on a firm foundation.

As a consequence of these endeavors everybody identified psychoanalysis with sexuality, i. e., accusing it of pan-sexuality. This is entirely false. Freud has from the beginning referred the origin of nervous disorders to a conflict between the instincts and ethics. In this conflict he found the ethical force to be the stronger.

The last five years he has devoted to a more close analysis of the ethical forces. From this study has arisen what he calls the "Ego psychology," by which he demonstrates the source and significance of the feeling of guilt, the social fear and mass psychology. These he has explored to a heretofore unsuspected depth after having completed his sexual theories. And throughout all his studies he has never neglected to point out the relationship of the psychoanalytic field of activity to those concerning theology, art, pedagogy, character study and all those more or less elaborated phases

(Just turn the page)

#### Freud Still Active

(Continued from page 21)

of applied psychology. All of these were enriched in unanticipated ways by psychoanalysis. Finally, he has also succeeded in finding for the first time points of contact between introspective psychology and the natural sciences, especially biology.

It is true that he had to attach a higher significance to the sexual instincts than had been hitherto permitted by the prudery of earlier generations, from which prudery no science escaped. But still, his conception of sexuality is broader than those preceding him, and he has been able to connect Platonic ideas to Eros, and so to bring the most tender and high spiritual relationships of human beings and things to the "pleasure principle."

Until 1909 Sigmund Freud worked

Until 1909 Sigmund Freud worked practically alone—only a small group of less than a dozen members gave him support. He thanks America for his first official recognition. This occurred in 1905, when Dr. G. Stanley Hall, president of Clark University and founder of the American Society of Psychology, invited him to the foundation festival of his university. Several of Freud's pupils, with whom I was included, accompanied him to that festival. The impression left by his series of five lectures was deep and enduring.

Now, after 20 years have passed, I have again visited the United States. I have been agreeably surprised to note that knowledge of the principal ideas of psychoanalysis exists in much wider circles here than in Europe. This understanding is quite superficial in America, while in Europe it is more solidly founded, owing to the existence of several special institutions devoted to the deeper study of this science. In 1910 we founded the International Psychoanalytic Association, which now has branches in Vienna, Berlin, Budapest, London, the Hague, Paris, Moscow, New York City, Calcutta and Zurich. In Vienna and London we have our own publishing firms engaged in printing reliable psychoanalytic literature and three journals.

Science News-Letter, July 9, 1927

An investigation among monks in England who eat no meat indicated that vegetarians are not immune to cancer.

A new machine to test the wearing qualities of paper when it is wet has been devised at the U. S. Bureau of Standards.

#### Physicist and Flutist

(Continued from page 21)

degree at the New Jersey institution in 1890. Since 1893, he has been professor of physics at Case School of Applied Science in Cleveland. Recently he was made chairman of the Division of Physical Science of the National Research Council for the next year, and so during the coming winter Washington scientists will have the pleasure of having him in their midst a large part of the time.

Science News-Letter, July 9, 1927

#### **MEMORANDUM**

This blank space serves a dual purpose. It allows you to clip out the article on the reverse of this page without destroying any other article. It can also be used for notes and the recording of your own observations.

### Studies Race Mixture

(Continued from page 21)

crease in stamina. Likewise, race mixture, in his opinion, brings no deterioration.

The idea that the half-caste is inferior, he maintained, comes largely from the fact that pure races have always looked down on the half-caste. In Norfolk Island, he said, the half-caste has a chance to show his worth, for there is no discrimination against him, as the entire population is half-caste. And Norfolk Island, he pointed out, is one of the only places in the world in which no stigma is attached to half-castes.

Science News-Letter, July 9, 1927

Camphor can be made artificially from turpentime.

The Eiffel tower in Paris contains 7.000 tons of steel.

The fastest growing vine is said to be the moonflower.

A single peony may produce 3,500,-000 grains of pollen.

Rubber floor mats are made from old automobile tires.

The Philippines had a university before the Pilgrims came to America.

Bats are the only mammals that can make sustained flights in the air.

A huge airtight tank in which an entire railroad car can be disinfected is used in Germany.

So-called "waste lands" of Ceylon are now sold for as much as \$180 an acre to tea planters.

Grasshoppers fried in lard with cloves or garlic are eaten by people in some parts of the Near East.

A dinosaur from Africa now being assembled in London is expected to be over 90 feet long and 20 feet tall.

A new ceramic material which can be heated up to 700 degrees and then immersed in cold water without cracking has been produced in Germany.

A French scientist, Charles Perez, has been honored by the French Academy for discovering the process by which a caterpillar turns into a butterfly.

If workers in tobacco fields smoke or chew they may infect the crop with the tobacco mosaic disease, unless they use heat-sterilized tobacco.