declared in his presidential address that science and religion are "more incompatible than ever," when viewed from the standpoint of modern psychology.

Vehement protests from fellow physicians and religious leaders immediately followed.

Charges and counter-charges in the theological battle are reviewed for the benefit of American physicians by the London correspondent of the *Journal of the American Medical Association* (March 9).

Dr. Forsyth declared in his address that the mysterious business of gods and spirits is an example on a colossal scale of a hang-over of childish thinking. Religious thinking is "pleasure thinking, not reality thinking," in his terms. Christianity, he charges, is often cruel and sadistic: in other aspects it manifests a perverted enjoyment of being cruelly treated.

The "voice of conscience," according to this prominent psychologist, is merely the voice of the father remembered from childhood. The sense of guilt, which begins to be felt around the age of seven, is always a conflict between the child's inclinations and the parents' wishes. Belief in a soul and the hope of immortality have simply been taken over by Christianity from primitive religions, and science has failed to discover a foundation for belief in the supernatural which Dr. Forsyth declares is the chief characteristic of religion.

Six medical psychologists and several other physicians have publicly disputed Dr. Forsyth. More largely than any other department of medicine, psychology rests on theory and speculation, they say. They deny his charges of sadism and masochism in Christianity—sexual perversions leading to cruelty and enjoyment of being cruelly treated.

The dean of St. Paul's, Dr. Mathews, also replied to Dr. Forsyth, admitting his argument that fantasy plays a part in some religious experience, but declaring that this is an aberration of religion.

Science News Letter, March 30, 1935

MEDICINE

Cancer Now Linked To Beginning of Life

CANCER brings to most minds a picture of suffering and death. Far different are the thoughts associated with the process that starts life, so that it is very strange to find the two processes—one so gloomy and the other so bright—linked together. But scientists are finding more and more links between them.

The latest discovery suggests that a product of the female sex glands may directly or indirectly produce in the body natural resistance to cancer. This does not mean that the gland product can be used as a remedy or preventive of cancer. The discovery of its possible role in prevention was made on animals and so far there is no human application. But the possibility of the gland product playing a part in building up resistance to cancer finds support from experience with human cases.

If this sex gland product or hormone is in some way responsible for natural resistance or immunity to cancer, one would expect the disease to occur most often when production of the sex hormone ceases, Dr. J. Argyle Campbell of the National Institute for Medical Research, London, points out (*Nature*.) This is the case at any rate in women, since cancer is most prevalent in the age period after sexual activity has ceased.

The idea that the sex gland product is a factor in the development of natural immunity to cancer arose when Dr. J. B. Murphy of the Rockefeller Institute found that the embryonic skin of mice is equally with placental tissue the most powerful agent in making mice immune or resistant to tumors. It is possible that this skin which covers the mouse before birth manufactures "immune bodies"—substances which give the body power to resist disease—as the result of sex hormone and uterine activity, Dr. Campbell says.

Another interesting link between cancer and the reproductive process is the discovery of British scientists, Prof. E. C. Dodds and J. W. Cook, that this female sex gland product is chemically related to a cancer-producing substance derived from coal tar.

Other experiments have led to the opinion that the sex gland product may in certain circumstances produce cancerous tissue.

Here is another new-found link: Breathing carbon monoxide in certain concentrations make mice sterile; in the same concentration, the gas slows the rate of growth of two kinds of cancer in mice.

What it all means and whether the links can be forged into armor strong enough to protect humanity against the dread foe, cancer, cannot yet be told, but these discoveries may well be the first links for such a coat of mail.

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ETHNOLOGY

"Wandering Gipsies" Becoming Stay-At-Homes

THE life of the wandering gipsy has been described by the story-writers as carefree, picturesque and highly attractive, although actual contact with a tribe quickly rubs off the glamour. It is only between the pages of a book or on the screen that a Lady Babbie is to be found.

Now science tells us that the gipsy tendency to wandering about the countryside, romantic or shiftless according to how you look at it, is not really the inherent characteristic of gipsies that fiction writers would have us believe. Three-fourths of the gipsies would not be gipsies if they had been trained to be anything else, although here, as in most cases, the training to be successful must start early.

This statement may be too optimistic but it is suggested by a study of the gipsy situation in Norway which has been reported by a Norwegian physician, Dr. E. Gisholt, who has been medical officer to one of the homes for children organized by the Gipsy Mis-

sion in Norway. (*Lancet*, Dec. 29, 1934).

Gipsy children over four years old are rarely admitted to the homes and the extreme age limit is six. The children live in these homes until they are eleven or twelve years old, enjoying the benefits of a religious education and physically and psychically sound surroundings. About 75 per cent. of them become self-supporting without adopting the vagrant life of their parents.

The traditional mental superiority of gipsies was disproved by intelligence tests of these children. "A certain low-grade nimbleness of wit" is all they have as a class.

The outdoor life of a gipsy child does not contribute as much to his health as might have been expected. Instead of being rare, rickets was found in a third of the children examined. This is attributed to the faulty diet the children have been fed and to their being kept in the sunless, airless cabins of gipsy boats.

Although Norwegian authorities have had trouble with gipsies since far back in European history, the signs point to a future without gipsies in that country.

In the nineties of the last century there were some four thousand gipsies in Norway, according to reports, but in 1927 there were only about half that many and at present only 1,800 are found living as gipsies. Norwegian gipsies are apparently becoming stay-at-homes and will probably soon be absorbed by the rest of the population.

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SEISMOLOGY

Central American Quake Centered on Sea Bottom

THE EARTHQUAKE reported from several American seismograph stations on Monday, March 18, really occurred on St. Patrick's Day—though not in any Hibernian part of the world.

Its epicenter was traced to a spot on the bottom of the sea, south of Antigua, Guatemala, by scientists of the Jesuit Seismological Association, St. Louis, after studying wire reports relayed from Science Service, Washington, D. C. The time of origin was about 4:32 p. m., Eastern Standard Time, on Sunday, March 17.

Stations reporting the quake were those of Georgetown University, Washington, D. C., Canisius College, Buffalo, N. Y., and St. Louis University.

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CHEMISTRY

Active Principle of Ergot, Childbirth Aid, Isolated

THE ACTIVE principle of ergot, a drug once widely used in childbirth, has been isolated by H. W. Dudley, biochemist of the Medical Research Council, and Dr. Chassar Moir, London University gynecologist.

Scientists have long sought to find the substance in ergot which is responsible for its effect on the uterus. The success in this search, just reported by Dr. Moir and Mr. Dudley to the *British Medical Journal*, marks the culmination of a three-year alliance of chemistry and clinical medicine.

Ergometrine is the name of the newly-isolated substance. When given by mouth, it produces strong contractions of the uterus after eight minutes. Hypodermic injections start the contractions in four minutes, on the average.

An Alkaloid

Ergometrine belongs to the class of drugs known as alkaloids. It differs markedly from and is probably simpler than other alkaloids isolated from ergot which were thought previously to be responsible for the drug's action on the childbearing organ. These are now finally proved not to be responsible for the drug's action.

The results obtained by the English scientists are said to be in accord with the findings of an American scientist, Dr. A. K. Koff of Johns Hopkins Medical School.

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ENTOMOLOGY

Chinch Bug Menace Unabated by Winter

CHINCH bugs in the grain belt states have overwintered successfully—from their own point of view. Field investigators of the bureau of entomology, U. S. Department of Agriculture, have found that winter weather has reduced their ranks by only about ten per cent., which makes no difference at all, practically speaking. Heavy infestation must therefore be expected during the coming summer.

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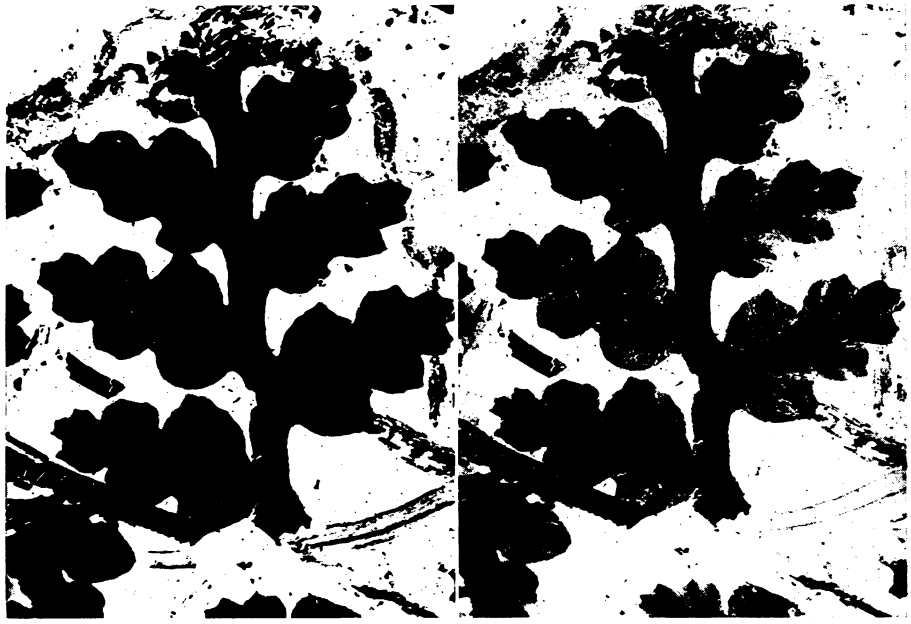

DARK IN THE LIGHT: MADE VISIBLE IN DARKNESS

Fine details of structure, hidden in photomicrographic studies of coal plants taken by ordinary light (left) stand out clearly when invisible infra-red radiation is seen through them into the camera. Photos by Prof. John Walton, Glasgow University. (See Nature, Feb. 16; SNL, March 16, p. 172)