

that after repeated doses of hormone from the anterior pituitary gland, the body builds up a resistance to the hormone, an anti-hormone effect. They were trying to find whether this anti-hormone effect would also be produced by repeated injections of the female sex

hormone when they discovered that excess amounts of the hormone did produce tissue changes similar to the beginning stages of cancer. In their experiments they used a hormone prepared by Dr. A. Girard of Paris.

Science News Letter, March 2, 1935

POPULATION

Number Aged Over 65 May Double in Next 35 Years

One Out of Every Ten Persons Will Be in This Group By 1970, is Estimate; Half Will be Dependent

THE NUMBER of persons over 65 years of age which will be affected by the legislation for old-age pensions now before Congress is expected to increase greatly in the next few years, doubling in number in 35 years.

America is rapidly growing older. Thirty-five years ago, at the beginning of the century, about 4,000,000 people in the United States were 65 or older. Today 7,500,000 persons are in that age group. By 1970, the aged will be increased to more than 15,000,000. This outlook for a rapidly aging population is revealed in figures presented to President Roosevelt by the Committee on Economic Security.

Thus, the report indicates, the problem of old-age security is one not of immediate relief alone, but of provision for a growing need in the future.

Not only are the numbers of old people increasing, as one might expect in a growing population, but the proportion of old people is also becoming magnified. In 1900, America had just a fraction over 4 per cent. in the age group over 65. By 1930, this proportion had increased to 5.4. But by 1970 the Committee expects the percentage to

have reached 10. Of every hundred men, women, and children in the United States 35 years from now, ten will be 65 years old or older.

If you are now a young man of 30, what are your prospects for the future? If you live for the next 35 years, you will then be one of the 15,000,000 people in the United States in the "old age" group. The chances at present are about 50-50 that you will be dependent, either on relatives, friends, or public charity.

Not so many people over 65 are finding employment as they did in the past. If you have been a long time with one firm, a survey has revealed, you are less likely to be dismissed than a younger worker. If you have drifted about a good bit from job to job, you will not have that advantage. In case you do lose your job, you are far less apt to secure new employment than younger workers are.

The Committee estimates that although 31.6 per cent. of the men over 65 were unemployed in 1900, that high figure has increased to 41.7 per cent in 1930. And the tendency is still upward.

Will you have saved enough to take care of yourself during your old age? That depends upon your present income. Five and three-quarter million families in the United States had in 1929 an income of \$1,000 or less. They were not able to put aside anything for approaching rainy days. Ten and a half million families, the most representative American group, made between \$1,000 and \$2,000 dollars. These families saved a total of \$750,000,000. A little manipulation of a calculating machine will show you that that seemingly large sum, when divided ten and a half million ways, gives a sum for each family of but \$71. How long could you live on less than a hundred dollars?

The man who lives to be 65 years old may reasonably expect to live 11 or 12 years longer. Women, at the same age, may expect to live 15 years. If you should be among the 15,000,000 who are 65 in 1970, and you wish to have an income of \$25 a month for the rest of your life, you should have saved, the Committee estimates, about \$3,300 or \$3,600, not \$71.

Only families having incomes larger than \$10,000 a year save as much as this amount on the average.

"If only this amount of income is allowed to all of the people of 65 years and over, the cost of support of the aged would represent a claim upon current national production of \$2,000,000,000 per year," the Committee reports. "Regardless of what may be done to improve their condition this cost of supporting the aged will continue to increase. In another generation it will be at least double the present total."

Science News Letter, March 2, 1935

PSYCHOLOGY

Children's Nicknames Merely Lead to Fights

CHILDREN'S nicknames, in 95 cases out of 100, have no value and merely lead to resentment, ill feeling, fighting and quarreling, Drs. Samuel Z. Orgel and Jacob Tuckman of New York City reported to the American Orthopsychiatric Association.

These scientists studied the nicknames of 235 boys and 75 girls, of average normal intelligence and ranging in age from 8 to 16 years, who live at a child-caring institution of the cottage-plan type sponsored by the Hebrew Sheltering Guardian Society of New York.

Only 3.5 per cent. of the boys and 4 per cent. of the girls had no nicknames. Girls use nicknames of the affec-

Canadian and Foreign Extra Postage Charge Reduced to Science News Letter Subscribers

Effective immediately with this issue, SCIENCE NEWS LETTER reduces its postage charge on Canadian subscriptions to 50 cents extra per year, and on foreign subscriptions to 75 cents extra per year.

tionate form and avoid those which are derogatory or which deal with the obscene or with personality defects, the investigators found.

More than a third of the boys had nicknames referring to personality defects, nearly a third had nicknames referring to physical defects, and the rest either had no nicknames or had one falling into one of the following cate-

gories; endearment or affectionate contraction; sweetheart's name; nationality or place of birth; name of animal; distortion of name, and miscellaneous.

Of the girls, nearly a third belonged in the "affectionate" classification, about the same number in the "physical defects" category and 15 out of a hundred in the "distortion of name" category.

Science News Letter, March 2, 1935

ance, temperament, and hereditary background. Of these, both twins were affected in only 11 instances, while in 56 instances only one twin of each pair was manic-depressive. In one case, one of the twins was manic-depressive while the other was an imbecile.

Women are more susceptible to manic-depressive insanity than are men. This fact may be one reason why so many of the unlike twins had only one of each pair affected; many unlike twins are brother-sister combinations.

First among the causes of manic-depressive insanity is what the scientists call a "cyclothymic" factor, which is widely distributed by heredity among humans and has to do with the emotions of mankind. It does not cause mental disease unless it is combined with another hereditary factor called the "activating" factor.

The activating factor is present in the X-chromosomes which determine sex, and is therefore more likely to appear in women than in men, because women have two of these chromosomes. It may be this factor, the investigators say, that accounts for the somewhat richer emotional life of women.

Like the cyclothymic factor, the activating factor alone is not capable of producing mental disease.

Finally, some unfortunate experience is needed to "set off" the hereditary factors and produce the disease. This "last straw" that breaks down the patient may be physical, such as an illness, a birth injury, or even a blow on the head. But in the majority of cases, it is a psychological experience such as loss of employment, financial loss, disappointment in love, or a death in the family.

The unfortunate combination of two hereditary factors plus one or more environmental conditions, produces the manic-depressive insanity, the investigator showed.

Science News Letter, March 2, 1935

PSYCHIATRY

Heredity Shares Blame For Ecstasy-Despair Insanity

Richer Emotions of Women Also Linked To Inheritance by Study of 180 Twins

THE KIND of insanity that swings a person from exalted ecstasy to despondency and despair is the "most hereditary" of all the common types of mental ailments.

Examination of 90 pairs of twins by scientists at the Los Angeles Diagnostic Clinic in Los Angeles, revealed this information about what is known to physicians as manic-depressive insanity.

The richer emotional life of women may be due to the same inheritance, which, combined with other hereditary factors and life experiences, leads to the manic-depressive state, the scientists theorized.

The hereditary make-up of the individual must share the blame for his mental breakdown, it was found. What happens to him during life is also important. Two heredity elements, called "cyclothymic" and "activating" by the scientists, are concerned. Both of these are widely distributed among human beings. Any person may have his share of either one of them. But neither one, acting alone, can produce the disease, nor can the results of experience when the hereditary factors are not present.

It is only when both hereditary factors are present that an experience such as a severe illness or a mental strain may bring it on.

One or both members of each of the 90 pairs of twins studied suffered from manic-depressive insanity. Study of the frequency with which the other members were also affected led to the new theory of the cause of this mental illness presented by Dr. Aaron J. Rosanoff, Leva M. Handy, and Isabel Rosanoff Plesset.

(*American Journal of Psychiatry*, Jan.)

Twenty-three pairs of twins studied were identical twins, the type that are so much alike that they are commonly mistaken for each other and have their origin in a single egg cell with identical heredity. Of these, both twins were affected in 16 instances, and only one of each pair in but 7 cases.

If one of such identical twins develops manic-depressive insanity, the other is more likely than not to develop the same kind of mental disease, it was found. But it was never observed that one member of identical twins would develop manic-depressive insanity and the other feeble-mindedness, epilepsy, schizophrenia, or some other form of mental ailment. Always if both twins were mentally ill and one was manic-depressive, the other would be manic-depressive, too.

A different picture was shown by the other 67 pairs of twins. These were not identical. Some were not even of the same sex. All were different in appear-



SUBSCRIPTION ORDER COUPON



To Science News Letter, 2101 Constitution Avenue, Washington, D. C.

Please start renew my subscription to SCIENCE NEWS LETTER for 2 years, \$7 1 year, \$5

Enclosed find check. Please send bill

Name.....

Street Address.....

City and State.....