

tion, doctors now know, is due either to too little acetylcholine or a too rapid destruction of it, resulting in inability to use the voluntary muscles. Patients suffering from this disease are now be-

ing helped by a medicine which preserves the acetylcholine from too rapid destruction. It is normally broken down into other chemicals after it has performed its function of nerve messenger.

Science News Letter, May 29, 1937

PHYSICS

Birth Notice of Particle Appears in Physics Journal

NOBEL prize physicist, Dr. Carl D. Anderson of California Institute of Technology, and his colleague, Dr. Seth H. Neddermeyer, have the scientific "birth notice" of their new atomic particle in the *Physical Review* (May 15).

Yet unnamed, the new particle is considered as intermediate in weight between the two simplest particles hitherto known: the electron and the proton. The electron has a negative charge of electricity while the proton has a positive charge of electricity and known to be the nucleus of a hydrogen atom.

A footnote in the scientific report entitled "Note on the Nature of Cosmic-Ray Particles," indicates that the claim

for priority as to who should be the scientific "parents" of the new atomic baby particle was a close race.

Notice is there made that the report of Drs. J. C. Street and E. C. Stevenson of Harvard University at the Washington meeting of the American Physical Society on April 29 gives "excellent experimental evidence showing the existence of particles less massive than protons but more penetrating than electrons. . ."

The Anderson-Neddermeyer paper was submitted for publication just a month earlier, on March 30. (See SNL, May 8)

Science News Letter, May 29, 1937

MEDICINE

Abortions Common Among Women Using Birth Control

RESORT to intentionally induced abortion is much more common among women who practice birth control than it is among women who do not. The abortionist is called upon to rectify the inadequacies of birth control.

Birth control is practiced more widely, although less effectively, in Chicago than in New York City.

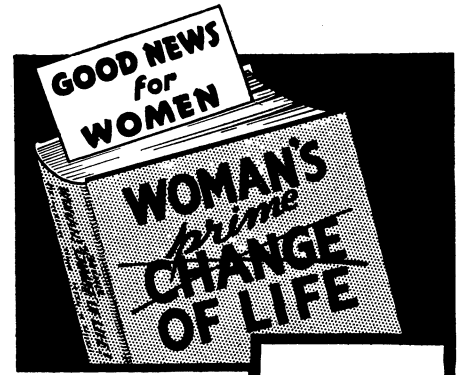
These are two facts that Dr. Raymond Pearl, Johns Hopkins University biologist, uncovered in his studies of the reproductive life of some 31,000 women delivered of babies in the hospitals of the East and of the Mississippi Valley.

From this study he makes a report on fertility and on contraception as practiced by New York and Chicago women. (*Journal, American Medical Association*, April 24)

What the biologist calls "reproductive wastage"—those pregnancies that terminate in miscarriages, abortions or stillbirths—constitute an outstanding part of Dr. Pearl's findings.

The 1,328 New York women studied who have experienced two or more pregnancies admit that one in every twenty-four pregnancies they have experienced in their aggregate reproductive lives has been terminated by a successful criminal abortion.

Furthermore, on their own admission,



Doctor Tells How to Make the "Change of Life" A CHANGE FOR THE BETTER—by following a few simple rules.

Are YOU prepared to meet the important changes that every woman must face? Or, are you just trusting to luck? Are you living in dread of the "Change"? Do you blindly believe "old wives' tales" concerning this important period? OR ARE YOU MAKING USE OF THE LATEST FINDINGS OF SCIENCE?

In the pages of this vital volume you are told exactly what to do before, during and after the "change-of-life."

ARE YOU WORRIED ABOUT—

- "Nerves"?
- Abnormal Symptoms?
- Growing Irritability?
- Insomnia?
- "Blushings"?
- Faintness?
- Dizzy Spells?
- Palpitation?
- Stomach Troubles?
- Women's Complaints?
- Your Husband?
- Losing your Figure?
- Mental Upsets?
- Menstrual Problems?
- Strange Symptoms?

Instead of running away from Life, as some women do, you are shown how to convert the "Change" into the "Prime" of life.

This phase of development requires a series of adjustments,—physical, mental and spiritual. You can be happier if you know HOW TO MAKE THESE ADJUSTMENTS! Dr. Hutton tells you what to do, what not to do! If you do not have this vital information you may find yourself irritating your family and friends, without being aware of it.

Choose The Road to Happiness!

The choice is yours: Will you, through ignorance, become a "difficult" person, or will you make the *most* of the years before, during and after the "change"? Let Dr. Hutton take you by the hand and guide you past the perils shoals that often beset the "change," as she has done for hundreds of her patients. In the pages of "Woman's Prime of Life," this famous specializing physician shows how you can retain your charm, how to avoid premature old age, how to safeguard health and feminine attractiveness and hold the love and affection of those you cherish.

SEND NO MONEY



FREE OFFER!

Mail this coupon to your bookseller or to EMERSON BOOKS, INC., Dept. 24-S, 251 West 19th Street, New York City.

Write your name and address clearly in margin of this announcement, to receive "Woman's Prime of Life" by Dr. I. E. Hutton for 5 days free reading. This vital volume will come to you in plain wrapper, marked "personal." Simply deposit with postman \$2.00 and a few cents postage—then if you do not care to keep it, return the book within 5 days for full refund of purchase price.

() To save postage, check here and enclose only \$2. (Same money-back guarantee, of course.)

Books

SCIENCE NEWS LETTER will obtain for you any American book or magazine in print. Send check or money order to cover regular retail price (\$5 if price is unknown, change to be remitted) and we will pay postage in the United States. When publications are free, send 10c for handling.

Address Book Department

SCIENCE NEWS LETTER

2101 Constitution Ave. Washington, D. C.



approximately one in every eight of them has had at least one induced abortion. Finally they admit that approximately 30 per cent. of the aggregate reproductive wastage they have experienced has been due solely to criminal abortions induced by themselves or by somebody else.

"It is probable that the admitted figures are short of the truth," writes Dr. Pearl.

All of the women studied are living in wedlock, have been married only once and are free from gynecologic disease. In other words, they are not persons of loose morals.

"These are records of families, living together and rearing children, on the whole representative of the most substantial sort of the traditionally typical American family from the 'very poor' through 'well-to-do and rich,'" states Dr. Pearl.

"They are voluntarily taking one of the most serious risks to their very lives as well as to their future health and well-being that a woman can take short of suicide or major self-mutilation."

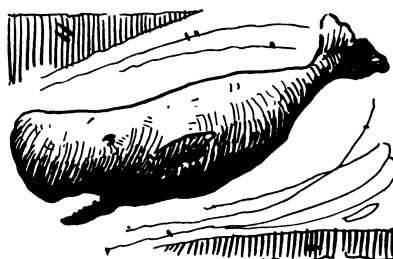
The white women of Chicago appear to be somewhat less fertile on the average than the white women of New York City, whether measured by pregnancies or by live births produced, the study shows.

Among the 3,451 white women studied in Chicago, 64 per cent. have practiced birth control either consistently or irregularly. Of the 3,420 white New Yorkers, 53 per cent. have made attempts at contraception.

As indicated by the average lapse of time between marriages and the beginning of the first pregnancy, contraception as actually practiced is more effective among New York women than among Chicago women.

Attempted contraception was less frequent and less effective among Negroes than among whites in both cities.

Science News Letter, May 29, 1937



Survival of the Fattest

FAT would seem to be par excellence the chosen form for the storage of energy against a time of future need. In the animal kingdom it is ubiquitous: the whale's blubber, the camel's hump, the layers of lard and bacon on the back and sides of the hog.

Man turns this animal storage of fat to his own advantage in many ingenious ways. The whole vast old-time whaling industry was founded principally on the whale's blubber aforementioned; the even vaster meat-packing industry of today rides on the backs of fat hogs, fat cattle, fat sheep. Savages burn the dried bodies of "oil-birds" as torches. The poor penned geese of Strasbourg are forced to be gourmands so that men may be gourmets, savoring the fatty delicacy of *paté de fois gras*.

To be sure, animals do not store all their reserve energy-food as fat. Principally in the liver a unique carbohydrate, glycogen, is laid up. This apparently converts into the ultimate muscle-food, dextrose, more readily than the more complex fat. It is the little heap of broken coal right down in front of the bunker, easiest to shovel into the furnace when needed. But it is worth noting that the

liver is also one of the prime storage-places for fat, as witness the liver oils of cod and other kinds of fish.

Fats and oils, by the way, have no sharp boundary between them. A fat is a solid oil; an oil is a liquid fat.

Plants as well as animals store a good deal of fatty-oily reserve food, although they tend to favor carbohydrates in far greater volume than animals. This may possibly be a consequence of the plant's sessile life; rooted fast in one place, it does not find the bulkier starches and sugars the handicap they would be to the actively motile animal.

Certainly it is worthy of note that in the very parts of plants that are likely to travel, that is, the seeds and other propagating bodies, one is most likely to find stored fatty foodstuff. Not only that, but if a seed has both starch and oil, the droplet of oil is nearest the folded-up embryo plant within the seed. Corn, wheat and other grains offer good examples on this point.

In oilier seeds, such as cottonseed, linseed, cacao beans, castor beans, coconuts—indeed nuts of all kinds—the stored oil may be more widely distributed. Some plants even endow the flesh of the fruit with oil, as witness the olive of the Old World and the avocado of the New.

Science News Letter, May 29, 1937

BIOLOGY—PSYCHOLOGY

Twins Don't Stay Alike If They Don't Stay Together

TWINS don't stay alike if they don't stay together. This is the general conclusion derived from a study of many pairs of twins, both identical and non-identical, by a three-man research team at the University of Chicago, representing the sciences of biology, psychology, and statistics.

Some of the twins had been reared together, others had been separated in infancy by various chances of life, and brought up apart. It was found that if the two members of a pair of identical twins grew up in strongly different social and educational surroundings, they "grew apart" as the years went on, and came to be quite unlike each other.

The three Chicago researchers are Profs. Horatio H. Newman, Frank N. Freeman, and Karl J. Holzinger. Their results are published in book form by the University of Chicago Press.

Science News Letter, May 29, 1937

Diabetes is increasing throughout the world, but is more prevalent in the United States than anywhere else.

→ SUBSCRIPTION ORDER COUPON ←

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

Please start my subscription to SCIENCE NEWS LETTER for 1 year, \$5
 renew 2 years, \$7
 Enclosed find check. Please send bill.

Name.....

Street.....

Address.....

City and State.....

Extra postage charges: 50c a year in Canada; 75c a year in foreign countries.