

1938, 9 out of 10 in 1942, and 1 in 2 in 1947.

On the subject of marriage, the youths were as optimistic in 1947 as in 1942. The conviction that "If people really want to, they can always establish a home and family without any great sacrifice, even in bad times" increased from 1938 to 1942 and remained strong in 1947.

Science News Letter, September 18, 1948

PSYCHOLOGY

Home Babies Are Brighter Than Ones in Institution

► EVEN young babies in a good institution do not score as bright on mental tests as do babies in a private home.

Two hundred infants from six weeks to 12 weeks old were given infant intelligence tests in a study reported to the American Psychological Association in Boston by Dr. A. R. Gilliland of Northwestern University. Half the babies lived in a good institution. Half are in private homes.

The average IQ of the institution babies was 97.5; that for those in private homes 109.5.

Apparently whether the parents are rich or poor does not have any effect on the mental development of such young babies. Those in the finest homes did not score higher than those in the poorest families.

The oldest child in a family tends to think differently from his younger sisters and brothers, the same meeting learned from Dr. Joan Kalthorn, of Fels Research Institute, Antioch College.

The first child in the family is likely to excel on abstract thinking. The younger child is superior on more realistic tasks. The younger child also tends to have a higher total intelligence score than his older brother or sister.

A possible explanation offered by Dr. Kalthorn is that the older child received more intellectual stimulation and companionship from adults. The younger child is less protected and has more freedom to explore and develop his own capacities.

Dr. Kalthorn studied 39 pairs of first and second children. They ranged in age from 30 months to 12 years.

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MEDICINE

Refuge from Hay Fever Possible in Park Areas

► IF YOU ARE seeking a refuge from your sniffles and sneezes during the hay fever season, go to the national parks of the Rocky Mountain, Cascade, Olympic, and Sierra regions.

Thirteen years of pollen testing have shown that these regions are excellent ragweed refuges, Dr. O. C. Durham of the Abbott Laboratories said in the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION* (Sept. 11).

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NEW LIGHT-WEIGHT "IRON LUNG"—This cat is breathing artificially in the new Yale cloth respirator. It was developed by Dr. Harold Lamport, left, and Dr. Ralph D. Eichhorn, right.

MEDICINE

Collapsible Cloth "Lung"

Polio patients would benefit from this inexpensive, light-weight respirator, if it can be produced commercially. Successful tests were made with a cat.

► PARALYZED polio victims may soon have available a cloth type of "iron lung" that is inexpensive and can be folded to fit into a suitcase.

This rubberized cloth respirator was tested successfully at Yale University on an experimental animal, its designers, Drs. Harold Lamport and Ralph D. Eichhorn, reported in the journal, *SCIENCE* (Sept. 10).

An experimental man-size model has been made for commercial use but several technical problems exist which the manufacturer must still solve. These are: how to provide proper portholes for patient care; how best to get a person in and out of the respirator; and whether to use it with a standard hospital bed or as a self-contained unit.

This new model uses the same principle as the "iron lung." It subjects the paralyzed patient to rhythmic negative pressure to help him breathe. It is cylindrical in shape and weighs less than two pounds when fully inflated.

Comparing its structure to a thermos flask, the doctors said it has air-tight inner

and outer walls with sustained air pressure between. Partitions extend the length of the cylinder but are not attached at the ends so that air under pressure can be introduced from a single inlet.

The end where the head protrudes is sealed off by a plywood disk with a sponge-rubber neck piece. This contains tubes to measure the pressure and to permit evacuating the chamber. To induce the rhythmic respiration, standard methods such as bellows, diaphragm, or vacuum pump with a flexible hose, can be used.

They also designed another model made of plastic sheeting which has so far proved unsatisfactory. However, they feel that this one has considerable promise because of the possibility it offers of having a completely transparent respirator which would aid in nursing and medical care.

The idea for the respirator was conceived by Dr. Lamport when he was working at Yale during World War II on the pneumatic lever suit which prevents black-out of pilots maneuvering at high speeds.

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