

other 100 years' liquid fuels supply." Fuel can also be extracted from coal "and U. S. coal deposits contain enough energy for perhaps 1,000 years at the present rate of consumption," he added.

To the industry that supports it, research pays big dividends, Mr. Viland said. He cited one company which "has realized a profit of \$15 for each \$1 spent."

Science News Letter, October 8, 1949

MEDICINE

Childhood Ills Hit Aged

► CHILDHOOD diseases, so called because they primarily attacked infants and children, are now shifting their attack to the oldsters in our population.

This paradox of an increasing infectious disease death rate among the aged at a time when such deaths are becoming almost rare among children is most dramatically emphasized by a series of cases of diphtheria. They are reported by Dr. Henry D. Brainerd of the University of California Medical School in *GERIATRICS*, scientific journal on diseases of old people.

Diphtheria from time immemorial has been considered a childhood disease. In the past it has been widely believed that 80% of diphtheria cases occur among children less than 10 years of age.

Yet among 147 unselected cases of diphtheria treated in the San Francisco City and County Hospital, almost one-third were over 45 years of age. This, the physicians pointed out, is only one instance of accumulating evidence that diphtheria is increasing proportionately as well as numerically among the aged.

This increase can be accounted for by surveying recent medical history, the physician said. Until 20 years ago diphtheria immunity was acquired by exposure to the disease, either with or without subsequent illness. After that time immunity was acquired by artificial immunization of children.

But many people who grew up before artificial immunization must have failed

to gain natural immunity, and they are now contracting the disease in their later years.

Further, diphtheria is more deadly to the elderly than to younger people, though the infection itself appears not to be more serious. The difference seems to be that elderly people are more susceptible to the toxins which cause death. Mortality among the San Francisco group was 29.9% among those over 45, and 17.3% among the younger group.

The physicians also included a group of patients with pneumonia and one with meningitis. Again, the infections appeared not to be more severe among the aged; and the antibiotics were able to knock out the infections among the aged as readily as among the young.

But the handicap of damaged hearts, lungs, kidneys and other organs which accumulate among the aged appears to make survival more difficult for this group. In lobar pneumonia only 4.8% of those below 45 years of age succumbed, in contrast to 29.3% over 45 years of age. The contrast was even greater in broncho pneumonia, the mortality being 60.8% for those over 45 and only 9.6% for those under 45.

Dramatic contrasts were presented also among the meningitis groups. Five times as many persons over 45 died of meningococcal meningitis as in the younger group; while in pneumococcal meningitis the ratio was two to one.

Science News Letter, October 8, 1949

GENERAL SCIENCE

Famous Mansion Given To Scientists

► ONE of New York's famous mansions just off Fifth Avenue is the new home of the New York Academy of Sciences.

Given to this 133-year old science body by Norman B. Woolworth, it is expected to become an important center of science.

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