

run around and play with other children and go to school have had an attack, they are immune to it. Then there follow one or two years in which so few children are susceptible to the disease that not many cases are reported. But as more children are born and grow into the run-about and school ages, a new large group susceptible to measles develops and the number of cases suddenly increases greatly over the previous year or two.

The present epidemic is centered in New York, New Jersey, Ohio, Illinois and Michigan. Experience in previous epidemics leads public health officials

to expect the peak of the epidemic by the middle of April.

Measles is a dangerous disease and the younger the child the greater the danger. Children under three years are especially likely to have fatal complications, such as pneumonia. Parents are therefore warned to keep young children from contact with those who have measles or may be coming down with it. The first symptoms may be easily confused with those of a cold.

Injections of the blood serum of someone who has recently recovered from measles are likely to avert an attack or make it less severe.

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thought these babies got the sickness from their mothers, although the mothers themselves did not have it.

Because the two adults who died of toxoplasmosis had lung involvements, the St. Louis doctors point out that the ailment might be transmitted directly from person to person, as the common cold is.

The infection is probably relatively rare, Dr. Sabin says, although there is "yet no indication how frequent such infection is." The St. Louis doctors, however, pointing out the similarity in the adults to recently reported cases of atypical pneumonia of unknown cause, state that it is not justifiable to assume that toxoplasmosis is a rare disease.

Treatment so far has been directed to relief of symptoms, but Dr. Sabin's report indicates that the newer sulfa drugs may prove effective. He gave sulfanilamide to one of the little boys, but without success. Later tests with mice showed that sulfa-pyridine and sulfathiazole have a curative effect on the infection in mice, but that sulfanilamide "only delays death but cannot prevent it" in this condition.

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MEDICINE

New Disease Mystery Caused By Toxoplasma

In Adults, Ailment Might Be Mistaken for Rocky Mountain Spotted Fever; Possibly Spread by a Tick

DOCTORS have a new disease mystery to solve. It concerns the ailment or ailments caused by a large, one-celled parasite known as *Toxoplasma*. The deaths of two adults and one six-year-old boy from infection with *Toxoplasma*, and a non-fatal case in another little boy, are reported (*Journal, American Medical Association*, March 1). The ailment may or may not be rare. How often it occurs is one of the unknowns in the problem.

The two little boys had "atypical encephalitis," Dr. Albert B. Sabin, of the Children's Hospital Research Foundation and the University of Cincinnati College of Medicine, reports. Encephalitis means "sleeping sickness" to most laymen, but the little patients did not have typical sleeping sickness. Convulsions, fever, disorientation, and an increased number of a certain kind of white blood cells in the spinal fluid were the chief features of the disease.

In the adults, the ailment might have been mistaken for Rocky Mountain spotted fever or endemic typhus fever, according to the report of these cases by Dr. Henry Pinkerton and Dr. Richard G. Henderson, of St. Louis University School of Medicine. Rash, fever and lung involvement were the outstanding features in these cases.

Toxoplasma, the "germ" that caused these quite different ailments, was first

discovered in 1908 in the gondi, a North African rodent. Since then it has been found in many animals, such as guinea pigs, rabbits, rats and mice and has been reported as causing disease in man. Scientists generally, however, rather doubted that *Toxoplasma* could or did cause sickness in man because the evidence in the earlier reports, with one exception, was inconclusive.

Now, however, the proof is more definite. Dr. Sabin and Dr. Pinkerton and Dr. Henderson report laboratory tests, including transmission of the disease to guinea pigs by inoculation with blood or spinal fluid from the patients, which are pretty convincing evidence that the *Toxoplasma* caused the illnesses.

How the patients got the infection is part of the mystery that remains to be solved. In the cases of the two adults, there was a suggestion that ticks, such as transmit Rocky Mountain spotted fever, might have given it. A cat in the home of one of the little boys became sick and had convulsions about the time the child got sick. This was suggestive, but the cat had been disposed of, so no tests could be made to determine whether it also was infected with *Toxoplasma*. Mosquitoes had been troublesome around this home, but no ticks had been seen.

Some cases of *Toxoplasma* infection have been reported in infants and it was

PSYCHOLOGY—GENETICS

Sensitivity to Noise Is Perhaps Inherited

CERTAIN individuals may be advised to stay away from noisy occupations such as riveting, pneumatic drilling, the tank corps in the Army if recent psychological research is found to have human applications.

Abnormal sensitivity to noise in rats, which makes some animals go wild with activity and even have an epileptic-like fit at the sound of jingling keys, is hereditary, Dr. Norman R. F. Maier and Nathan M. Glaser, of the University of Michigan, have found.

Of 18 rats tested, all of whom were offspring of normal parents, not a single one was found to have the "neurotic" sensitivity to noise, these scientists report in the *Journal of Comparative Psychology*. (October)

But among 25 offspring of one "neurotic" and one normal parent, more than half were thrown into fits by the key jingling.

When both parents were noise sensitive, the proportion of the offspring who showed the "neurotic" tendency was increased to nearly 75 per cent.

The evidence of the experiments is that the noise sensitivity is inherited as a dominant trait, the psychologists con-

clude. This means that the trait is likely to show up in the young even when one of the parents is entirely normal.

Whether humans inherit in a similar way a tendency to get the "jitters," or other nervous ills from exposure to such violent noises as bursting bombs, gunfire, shrieking sirens or industrial noises,

cannot be deduced from these experiments. The nervous system of humans differs from that of rats, and noise probably does not have a comparable effect on even susceptible individuals. It is known, however, that excessive noise does make some people jumpy.

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PSYCHOLOGY

Familiar Sightings and Acts Regarded as Mental Armor

In Times of Danger of Death, Comfort Is Found in Simple Act of Buckling on a Belt or Equipment

ARMOR plate against attacks of "war nerves," has been invented by a British psychologist. The new protection consists of the presence of familiar things:

Sight of a policeman's blue uniform, known and trusted since childhood.

Going through with some simple act made familiar by constant drill.

Definite orders to report at a certain place and do a certain set thing.

These are the civilian's protection for his sanity in time of great fear.

Lessons for building up home defense units in America are seen in a discussion of how to prevent tragic mental effects of the war of nerves, contained in a new book of British origin just published in the United States on *The Neuroses in War*. Dr. W. R. Bion, who has been psychiatrist in the Emergency Medical Service and captain in the Royal Tanks Corps, contributes the report on civilian morale and mental protection. (*Reviewed, SNL, this issue.*)

So far as possible, familiar organizations—the local police and fire departments — should be expanded and entrusted with duties of home defense in place of building up new and strange organizations such as England's A.R.P., Dr. Bion advises.

In time of danger of death—the great unknown—a real need is filled and comfort and strength obtained by the presence of authorities familiar since childhood.

Organization should be thorough and complete so that every man, woman and child has a task that must be done and is a part of some unit. For the aged and infirm this may be some very simple act which has its greatest value in

relieving fear. Dr. Bion recalls "the satisfying feeling that was produced on one occasion during the last war, when the objective situation appeared desperate and the enemy commenced an attack, by the simple act of having to buckle on belt and equipment before standing to arms."

The alarm, Dr. Bion emphasizes, must not be just a signal to take shelter, but a call to action. And there must be an action, however trivial, to which everyone is called.

Methods for protecting the morale of soldiers have been worked out through practical experience over many years. Similar devices must be found for civilians who now must bear the brunt of immediate contact with war fears.

The soldier is a member of a close unit. He knows that his name is on a certain roll, and his whereabouts kept track of. If anything happens to him, he is sure that his absence is not going to go undetected for long.

The soldier is in uniform. From the days of schoolboy thrillers, we become used, Dr. Bion says, to the idea of blood, or of wounds on a uniformed body. But the sight of blood on civilian clothes is unnerving.

The soldier lives by rules and manuals of drill.

The civilian should not only have his place in some defense unit, but he should be a part of some organization at home as well as at work. It is particularly terrifying to feel that you must face danger alone at night when the imagination naturally tends to run riot, magnifying dangers.

Going to school has its value in protecting the mind by returning the individual to the safe scenes of his childhood. For this reason, courses of adult education have a special value in time of national emergency.

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BOW-AND-ARROW BRANDING

Arrows tipped with sponge-rubber balls dipped in vari-colored paints are being used in the Gunnison National Forest for marking deer, to learn to what extent they move from one feeding area to another. The deer are not injured—not even seriously alarmed. And so tame are the herds that a marksman can stand on the same spot and "shoot" several animals before the rest of them scatter.