

PSYCHIATRY

**When to Call
A Psychiatrist**

► THE PUBLIC should be taught to spot the signs of mental illness as quickly as mothers recognize a child's fever, Dr. Ivan C. Berlien, chairman of the committee on preventive psychiatry, reported to the National Health Forum meeting in Cincinnati.

Here is his list of eight warning signals that mean it is time to see a psychiatrist:

If you are "not yourself" for a month or so.

If your ideas obviously do not make sense when you express them.

If you act, for a day or so, as if not knowing where you are or what day it is.

If, for a period of months, you consistently make people around you unhappy, upset, or worried without an understandable reason.

When your drinking interferes with work, school or decent social relationships.

When you lose your appetite and weight over a period of a month or so with no apparent physical illness or need for losing weight.

When you have trouble sleeping at night to the extent that it shows in poor work or excessive irritability.

This list of symptoms was suggested as a "starter" to which others could undoubtedly be added. If mental illness is to be dealt with effectively, everyone must be thinking in terms of prevention and early treatment, the psychiatrist said.

Science News Letter, April 27, 1957

MEDICINE

**Describe Blood Disease
Overlooked in Infants**

► A "FREQUENTLY MISSED" blood disease of newborn children that can cause permanent brain damage if left untreated was described by Drs. Sanford L. Leikin, Jack J. Rheingold and James Nelson of George Washington University School of Medicine to doctors attending the American Academy of Pediatrics' Washington meeting.

The blood disease, known medically as ABO Erythroblastosis, occur when an unborn child has either A or B type blood and his mother has type O. The mother builds up antibodies to the blood of the developing child and these antibodies impair the function of the child's own blood system. Babies who have been affected by the antibodies are born in a jaundiced and anemic condition and often require a complete transfusion of blood.

RH factors can cause the same type of sensitivity between mother and child, but in a study of 1,148 pairs of mothers and infants Rh trouble was only half as common as the ABO disease, the doctors reported.

The ABO condition is generally a milder disease than that caused by Rh sensitivity

but it can still cause kernicterus, a complication in which the brain is irreversibly damaged.

In general, infants suffering from the ABO condition are more alert, active, and appear less affected than their Rh counterparts. However, the ABO disease frequently affects a mother's first child while Rh disease rarely does.

Doctors should suspect the condition in any jaundiced infant with A or B type blood who is born to an O type mother, the doctors warned. The existence of the disease can be easily determined by blood tests.

Science News Letter, April 27, 1957

CHEMISTRY

**Engine's Knock Due to
Flame on Piston Walls**

► THE KNOCK of an automobile engine is due to the impact of flame on the piston's walls, which produces an effect similar to that of a projectile smashing into an object, a scientist in London reports.

Dr. Elwyn Jones, research department of Imperial Chemical Industries, studied the impact of flame on the closed end of pipes. He found that energy is absorbed when a flame is created and released when a flame expires.

When the flame reaches the walls of its containing vessel and dies, a sudden flush of heat, referred to as the "afterglow," passes through the combustion products. The faster the flame travels, the quicker it is extinguished at the surface of the vessel, and the more rapid is the subsequent release of energy.

Dr. Jones confirmed that high-speed flames "produce a mechanical effect similar to that of a projectile." Dr. Jones suggests in *Nature* (March 16), that the familiar phenomenon of "knock" in an internal combustion engine is due to this cause.

Science News Letter, April 27, 1957

METALLURGY

**Chromium Produced by
Long-Sought Process**

► A SUCCESSFUL process for producing pure chromium metal electrolytically was announced by the Bureau of Mines of the Department of the Interior. The method for producing the high-purity metal for use in new superalloys is already being employed commercially.

The key to the discovery, long sought by Bureau scientists, is the use of a special cell, or reactor tank, in which the electrolytic depositing takes place. Also, the cell is charged with an aluminum complex of chromium which aids recovery of chromium from its treated ores and iron-chromium complexes.

Output from the commercial use of the new process is being used primarily in superalloys for jet engines.

Science News Letter, April 27, 1957

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