

PSYCHIATRY

H.T.'s Attackers Not Ill

An assassination attempted by more than one person, especially when they belong to organized group, is not likely to be act of mental illness.

► THE CHANCES are that the attempted attack on the President's residence, the Blair House, was not the act of mentally ill persons.

This is the opinion of Dr. Frederic Wertham, New York psychiatrist and author of a recent book on murder, *THE SHOW OF VIOLENCE*.

When a single person kills or attempts to kill a ruler or leader, that is often the act of a mentally ill person. It is scientifically called "magnicide," meaning the killing of someone big.

But when two persons act together in an attempted assassination, as they did in this case, and when these persons are members of an organized political group engaged in a political uprising, the act should not be viewed as psychiatric but rather a social or political happening.

This is the opinion of Dr. Wertham, expressed to Science Service by telephone. Dr. Wertham was, of course, speaking generally, in the absence of any direct information about the men who tried to shoot their way into the Blair House.

The assassin of former President McKinley was an insane person, as was also the man who made an attempt on the life of the late President Roosevelt before his inauguration. These were men, acting alone, driven by their own abnormal impulses and a desire to kill a big man in the public eye.

Although the President's residence is visited each year by a large number of "cranks," who are all potentially dangerous, they are, with few exceptions, harmless, quiet and well behaved.

A study of the psychotic visitors to the President and to other public offices in Washington was made a few years ago by Dr. Jay L. Hoffman, then of St. Elizabeth's Hospital and reported to the American Psychopathological Association.

"These patients are, in general, a pitiful lot," he reported. "They are frequently of foreign birth or extraction, without friends or family, well along in years, wanderers, unemployed, and completely unaware of the abnormality of their ideas and behavior.

"One may search the stories of their lives without finding much cause for happiness or satisfaction."

Only five out of 53 patients studied were married. Frequently there were no relatives or friends sufficiently interested in the patient to respond to correspondence from the hospital. A number had been raised in orphan asylums or foster homes. Most of those of foreign birth had no relatives in this country.

Their stories form a contrast to that of the two Puerto Rican Nationalist Party members who shot the White House guards defending the President's residence.

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PHYSICS

Extreme Cold Key to What Makes Steel Really Hard

► EXTREME cold has been the key to a new understanding of what makes steel really hard, Dr. James R. Killian, Jr., president of the Massachusetts Institute of Technology, stated at the University Club in Cleveland, Ohio.

Recent studies at M. I. T. have gone a long way toward a solution of the age-old problem of the mechanism of how steel hardens, he said. The same research, he added, has cast uncertainty on many low-temperature theories by showing the possible role of extreme cold in the hardening of steel.

Dr. Killian was discussing cold in the region near absolute zero, which is approximately 460 degrees below zero on the Fahrenheit scale. The recent studies at M. I. T. show that the atoms in steel can rearrange themselves in the process which

makes steel hard even at the extremely low temperatures of liquid helium, 453 degrees below zero.

This discovery, he declared, refutes many ideas of low-temperature behavior. These ideas have assumed that the mobility of atoms decreases as their temperature goes lower and lower. These ideas implied that all atomic movements cease at extremely low temperatures and that no changes such as the hardening of steel may occur.

Instead it appears that steel hardening takes place more completely at low temperatures than at any others, he declared. The new studies indicate that steel hardening is a cooperative shear-like "sliding" in which atoms move in unison. At extremely low temperatures large groups of atoms in steel appear to participate in this sliding motion and thus are transformed from a soft form known as "austenite" to a hard form known to metallurgists as "martensite."

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BOTANY

Tree Production Speed-Up By Wires, Cutting Roots

► A SPEED-UP of from 12 to 16 years can be applied successfully to the production of better hybrid trees.

Dr. Syrach Larsen of the Danish plant experimental station, Krogstrup, reports that he has forced ash trees to bear seeds in three or four years. Under normal forest conditions, the trees would have taken 15 to 20 years to propagate.

His method is to plant the best hybrid young saplings. When the young trees are about three years old, he pushes them into



GIRTH CONTROL—These seed trees have been temporarily steel-banded to force extra cone and seed production for quicker reforestation of nearby harvested area. Theory is to scare tree into thinking that it is dying which causes it to divert food energy to seed production.