

MEDICINE

Portable Heart Monitor

► LIVES may be saved by a new, portable heart monitor that can detect a still beating heart in patients otherwise apparently dead.

The monitor was developed by six scientists at the Veterans Administration Hospital, Hines, Ill., who describe it in the *Journal of the American Medical Association* (Oct. 6).

It was devised to help surgeons and anesthesiologists during operations or resuscitation, but it may find wide use by police and fire department rescue and resuscitation squads to tell if the heart is beating in cases of drowning, electric shock, auto accident and severe injury.

In civil disasters or combat situations, it could help sort living from dead casualties, thus speed resuscitation and treatment under adverse conditions.

The three-pound, 120-cubic-inch device is powered by four flashlight batteries. Electrodes attached to the forearms of the patient pick up the heart impulses and feed them into the monitor where they are indicated by a magnetic needle.

If the heart is functioning normally, the needle shows a uniform movement. However, when the needle produces small, irregular and erratic movements, it is a sign of ventricular fibrillation, a condition in which the heart ceases to beat regularly and the muscle twitches.

Cardiac arrest—or sudden, unexplained heart stoppage—is indicated when the needle stops altogether.

The monitor is especially useful in situations of extreme shock, severe hemorrhage or suffocation, when blood pressure and pulse rate sometimes may fall to imperceptible levels. In such cases, the monitor can show that the heart is still functioning even though there is no detectable pulse. This should prevent unnecessary opening of the chest for cardiac massage and speed the beginning of proper treatment.

The scientists who developed the monitor are Theodore Fields, M.S., Drs. Ervin Kaplan, Bernard Abrams, Robert Simpson and Archer Gordon, and Joseph Kenski, an electronic technician.

The scientists point out that nurses, tech-

nicians and even non-medical rescue personnel can operate the monitor readily because of the simplicity of design and interpretation.

Science News Letter, October 20, 1956

PSYCHIATRY

Distant Look Shows Pre-Accident Patient

► THE PERSON who is going to have an accident can often be detected by the pre-occupied distant look on his face, says Dr. Morris S. Schulzinger of Cincinnati.

By diagnosing the "pre-accident patient" and treating him, much progress can be made in reducing the 10,000,000 serious injuries and 100,000 deaths due to accidents each year, Dr. Schulzinger declares in a report in *Industrial Medicine and Surgery* (Oct.).

"It is now possible," he states, "to predict with reasonable certainty when, to whom, under what conditions and in what circumstances an accident is most likely and least likely to occur."

Besides the distant look on his face, the pre-accident patient may appear anxious, irritable, restless, fidgety.

Often he shows loss of enthusiasm and initiative. He may be careless, undecided, or impatient. He may make more mistakes, be absent more, smoke more, drink more than usual.

The pre-accident patient may become cool, evasive, over-sensitive, bored and resentful.

These are among many clues to diagnosis of such a patient. Treatment of him to prevent accidents is rather general and directed toward controlling or curing the impairments and maladjustments discovered in the medical examination of the patient. An important goal of treatment is to help the patients regain their emotional equilibrium.

From the long-range standpoint, accident prevention should begin with the child in the home, Dr. Schulzinger says.

"Children," he states, "should be immunized against accidents even as they are against infectious diseases."

Science News Letter, October 20, 1956

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