

## MEDICINE

**X-Ray Overdosage  
Possible from Diagnosis**

► **THREE X-RAY** diagnostic procedures which may produce overdoses were reported by Drs. Vern W. Ritter, S. Reid Warren, Jr., and Eugene P. Pendergrass of the University of Pennsylvania, Philadelphia, at the meeting of the Radiological Society of North America in Chicago.

The three are: 1. fluoroscopy in which the doctor looks at X-ray shadows of internal organs while the patient is in front of a fluoroscopic screen; 2. dental radiography in which dentists take X-ray pictures of teeth and jaws; and 3. roentgenograms, or X-ray pictures, of the lumbar (lower) spine and pelvic measurements.

Otherwise the X-ray dosages received in diagnostic procedures are small and probably insignificant except in cases of unusual sensitivity, frequently repeated and serial examinations, or when superimposed on doses received for X-ray treatments.

A method for calculating X-ray doses received in diagnostic procedures was worked out for the University of Pennsylvania Hospital. The method can be adapted to other institutions doing X-ray diagnostic work. It is accurate enough, Dr. Ritter and associates believe, to eliminate guesswork in trying to determine if a patient can safely receive further diagnostic X-ray service.

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## MENTAL HEALTH

**Attack Mental Health  
Problem Along Eight Lines**

► **EIGHT LINES** of attack on one of the world's most pressing health problems, the treatment and prevention of mental illness, were worked on by psychiatrists and social scientists at the Fourth International Congress on Mental Health.

The eight lines along which the scientists hope to better mental health throughout the world are: 1. mental health problems of children from infancy through adolescence; 2. selection of teachers; 3. tensions between workers and management; 4. social security systems and their relation to mental health; 5. mental health problems arising from mass migration; 6. mental health and aging; 7. techniques in treating mental disorders; 8. and mental health and religion.

The World Federation for Mental Health, the organizing body for the international conference, is an international organization with a voluntary non-governmental role in world mental health affairs, with temporary headquarters in London. It serves as a consultative body to two United Nations' organizations, UNESCO and the World Health Organization. Dr. John R. Rees, formerly chief psychiatrist consultant to the British Army, is director of the Federation.

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**MASK TEST**—Better speaking conditions for persons wearing gas masks is foreseen from experiments of the U. S. Army's Chemical and Radiological Laboratories in echoless room such as shown above.

## GENERAL SCIENCE

**Candles, Feasts, Evergreens**

Over 4,000 years ago, at this time of year, people were celebrating with a mid-winter feast honoring the beginning of the sun's return northward.

► **SOME FOUR** thousand years ago people at this time of year were busy preparing for a holiday feast, readying presents, decorating their homes with green branches, marching in religious processions and lighting candles just as we do today during the Christmas season.

Christmas, at which time Christians celebrate the Nativity, comes on Dec. 25 because ancient pagans had a mid-winter feast honoring the beginning of the sun's return northward. In some of these celebrations also a mother and child were honored.

Even the most orthodox of churchmen now freely state that there is no dependable record of tradition exactly dating the birth of Christ in Bethlehem. The Christmas celebration did not begin until three or four centuries after Christ's time.

Christians made the transition to the new religion easier for pagans in the northern hemisphere by setting the date of the pagan's midwinter feast as the traditional date of Christ's birth.

Centuries before Christ was born many religions celebrated the start of the sun's return from the southern part of the heavens, the promise of longer days and warmer

weather. Some people have thought the Christians invented Christmas to compete against the pagan celebration of Dec. 25.

The worship of the sun with its New Year's celebration sprang up independently in many lands. In Egypt the image of the sun as a new-born child was carried in the midwinter processions. In Mesopotamia the festival, lasting 12 days, was marked by lights and songs. Through the centuries the sun was worshipped in Greece, in Rome and in Europe.

The sun cult was strongly represented during the first Christian centuries by Mithraism, a religion that had its beginnings in Persia. Again, its followers celebrated the sun's return to strength on Dec. 25.

Some of the pagan celebrations included boisterous "hell-raising" more in the nature of our Hallowe'en rowdiness.

Working throughout the centuries, the Christian Church finally has tamed the pagan celebration. Today the merriment, the greenery and the lights, the cards, the gifts and the carols are in honor of the Christ Child. It is the Mother and Babe of Bethlehem who are honored on Dec. 25.

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