PSYCHIATRY

Frigidity in Women

➤ TRUE frigidity in women, one of the most common problems in gynecology, is a neurotic illness due solely to psychologic factors.

Physicians specializing in this branch of medicine which deals with woman's constitution and diseases should therefore be aware of these psychologic factors and prepared to deal with them from the psychiatric viewpoint, Dr. William S. Kroger of Chicago and Dr. S. Charles Freed of San Francisco advise fellow physicians through a report to the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (June 10).

True frigidity, they state, cannot be cured by appealing to the patient's conscious processes. Threats and recriminations are valueless. If the gynecologist has been trained in psychiatry he can use hypnoanalysis to bring to light the unconscious feelings that are at the root of the patient's frigidity.

Gynecologists and obstetricians, however, must know their limitations in the field of psychiatric treatment lest they do more harm than good, Drs. Kroger and Freed point out.

Among important underlying causes of true frigidity the physicians give the following unconscious feelings and conflicts:

1. Guilt feelings because of infidelity or hostility to the husband because the woman thinks he is unfaithful. Ordinary re-education and discussion are useless in these cases. The patients must be referred to the analytically oriented psychiatrist.
2. Religious or moral attitudes taught in childhood. Though the present generation has had better sex education than its predecessors, sex is still "taboo, dirty and sinful to a large number of frigid women."
3. Arrested emotional development at the level of childhood when the love object is the parent of the opposite sex.
4. Hostility toward all men.
5. Latent homosexuality.
6. Narcissism, or too much self-love.
7. Emotional immaturity.

Science News Letter, July 22, 1950

AERONAUTICS

Air Navigation Aid

➤ AN IMPORTANT forward step in flying safety is a contract recently signed in Washington by the U. S. Civil Aeronautics Administration for 450 ground stations equipped with distance measuring apparatus.

By means of them, a pilot in flight will continuously know his distance from a radio range. The equipment, known as DME for short, will use radar-type radio pulse transmission.

The DME transponders are part of a revolutionary new air navigation system being installed for civil and non-tactical use under a program developed by the Radio Technical Commission for Aeronautics. It is a companion device for the 400 new omnirange stations, 300 of which are now in use. These provide static-free radio beams in all directions for pilots to follow.

The DME equipment, as explained by CAA, is one of the electronic miracles born during the last war. It is a much-improved and modified version of the radar beacons, known as "racons." It operates on very high frequency in the static-free part of the radio spectrum.

In use, aircraft must be fitted with a special radio transmitter and receiver. The transmitter sends out coded pulses of radio energy. The ground-based DME equipment receives these pulses, and then hurls back another set of radio pulses to the plane. The time required for the "round trip" is measured by the receiver in the plane, and translated into miles for the pilot.

Each DME ground station can serve 50 aircraft at the same time. With modifications it could serve more. Its normal range is about 40 miles for a plane at 1,000-foot altitude, and up to 200 miles at very high altitudes.

Under the contract signed, the first DME transponder will be delivered to the CAA for testing late this year. Others will follow, reaching 40 units per month by June, 1951. The contract is with Hazeltine Electronics Corporation, Little Neck, L.I.

Science News Letter, July 22, 1950

NUTRITION

Vitamin Diet: Codfish Livers and Cod Liver Oil

➤ IN the vitamin age of the future, young poultry and livestock—perhaps even children—will be given codfish livers as well as cod liver oil.

A new method of extracting the important oil from fish livers, oil-rich in vitamins A and D, has led to the discovery by Canadian fisheries scientists that the liver residue carries as much of the B-complex vitamin group as beef liver and pork liver.

The vitamin B group is drawing increasing attention from nutritional experts. It includes the vital substance called APF, or animal protein factor, as well as food elements which combat pernicious anaemia. More and more poultry raisers in particular are including dried fish meal in their chicks' diet.

As a source of these vitamins, codfish liver residues could revitalize the ailing cod liver oil industry on this side of the Atlantic, the Fisheries Research Board of Canada indicates in its annual report.

Dr. F. A. Vandenheuvel, chemist at the Canadian government's experiment station in Halifax, Nova Scotia, achieved a new and much more efficient way of separating the oil from cod livers last year. This spring the method, employing centrifuges and a chemical reaction, was tried out for the first time on a commercial scale by a cod liver oil producer.

Science News Letter, July 22, 1950

AERONAUTICS

Supersonic Plane Pilots Need Electric Eyes

➤ PILOTS of supersonic planes will need electric eyes to avert collisions in midair. And fighting at supersonic speeds will be "very difficult." Figures on the speeds of these planes and the speed of human vision and reaction time show this.

The comparative figures were reported by Col. Victor Byrnes, chief of the department of ophthalmology at the U. S. Air Force School of Aviation Medicine, Randolph Field, Tex., at the Pan-American Conference on Prevention of Blindness in Miami Beach, Fla.

If two aircraft came out of the clouds 8,000 feet apart coming toward each other, they would collide before either pilot could do anything about it," he declared.

"If they came out of the clouds head-on at a distance 500 feet apart, they would collide without either pilot having seen the other."

With flying speeds in excess of the speed of sound now an accomplished fact, engineers are publicly predicting speeds of 1,800 miles per hour for the not too distant future, he pointed out.

"At a speed of 2,000 miles per hour the pilot could not turn a circle smaller than 18 miles in diameter, and unless wearing a good protective suit or assuming a position other than upright, he would be blacked out all the way around the turn," Col. Byrnes stated. "Aerial combat under such conditions would be very difficult."

At a speed of 1,800 miles per hour, a pilot travels about a mile every two seconds. It takes about four-tenths of a second for the image of an on-coming plane to be relayed to his brain, during which time his plane has travelled nearly one-fifth of a mile. But during this time and distance he has not yet recognized the image, he has only seen it. Recognition takes another second, on the average, during which the plane travels another 2,640 feet.

Supersonic craft, Col. Byrnes said, are now being fitted with electronic devices which can react faster than man.

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