

## MEDICINE

**Collapse After Bleeding  
May Have Cause in Kidney**

**S**HOCK or fatal collapse after severe bleeding may be due in part to exhaustion of a blood-pressure-regulating mechanism in the kidneys, Dr. Eric Ogden, Leo Sapirstein, J. G. Hildebrand and Dr. Ernest W. Page discovered in experiments at the University of California.

If the kidney is deprived of its normal supply of blood, they found, it liberates a chemical, renin, which through a series of chemical reactions in the body raises the blood pressure. These chemical reactions are always at work, it is believed, to maintain normal blood pressure. But the kidney is capable of liberating so much renin, the California scientists found, that it becomes exhausted and can no longer produce this chemical. This might happen in cases of severe bleeding when the kidney is trying to maintain blood pressure balance by rushing new supplies of renin to the blood.

When this strain exhausts the kidney's renin-producing mechanism, low blood pressure and death result.

*Science News Letter, May 30, 1942*

## MEDICINE

**Frequent "Colds" May Be  
Nasal Allergy to Food**

**W**HEN a baby, or an older child or grownup, for that matter, has one cold after another, a physician should be consulted. The attacks may not be colds but some other condition requiring different kind of treatment. Allergy is one of the conditions that often is mistaken for colds.

"Whenever an infant in the first year of life has one cold after another or never seems free from one cold when another develops, nasal allergy to foods must be strongly considered," Dr. Arthur J. Horesh, of Western Reserve Medical School, recently told a group of child specialists who are members of the American Academy of Pediatrics.

Parents are likely to recognize hay fever itself in an older child, but may not suspect that some of the baby's ailments are allergic. Eczema, for example, may be due to the infant's being allergic to food. Such babies are frequently so sensitive, Dr. Horesh said, that the "mere presence of the offending foods in their immediate environment may produce allergic symptoms of a serious degree."

Food odors and vapors from offending foods, he said, should always be considered as possible sources of the trouble when the allergic condition persists in spite of careful diet and treatment.

"The preasthmatic or preparoxysmal stage of asthma is frequently mistaken for whooping cough," Dr. Horesh said. "These patients have a cough which is violent and paroxysmal in nature and is commonly accompanied by vomiting. Differentiating this cough from pertussis (whooping cough) is difficult. Weeks later asthmatic symptoms develop."

The question of heredity in allergy is still controversial, he observed. When there is allergy in both parents or on both sides of the family, "there is a strong probability," in Dr. Horesh's opinion, that the baby may develop an allergy. But it is not necessary to take a defeatist attitude about the situation. Much can be done to prevent the development of allergic symptoms or to lessen their severity. Such babies should be fed with great care, Dr. Horesh advised, and "dust-free" bedrooms should be provided. Pets and too many stuffed toys should be discouraged.

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## FORESTRY

**Forests to Go to War  
Taking Over Jobs of Metals**

**"T**HENEgone to war," Henry Schmitz, president of the Society of American Foresters, told the Society. Unprecedented demands upon American forest resources are being made and met.

Of the 1941 cut of lumber, 23 billion board feet, or 73% of the total, went directly or indirectly into the war effort, and the amount is certain to increase as the nation really hits its fighting pace.

Wood is being used not merely for its traditional purposes, but is having to take over many of the tasks of metals drafted for war. Timber trusses replace steel beams in bridges and under roofs, plywood planes appear in the skies, wood-pulp cellulose supplements cotton linters in the manufacture of gun cotton and its derivative smokeless powder.

Despite increased cutting necessitated by the war, it is expected that large lumber producers will continue to follow the sound practices they have adopted, of making replacement plantings wherever they remove the forest cover. But cutting of immature, rapidly growing stands will have to be watched.

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**IN SCIENCE**

## MEDICINE

**Registration with FCC of  
All Diathermy Machines**

**A**S a wartime security measure, all diathermy apparatus in doctors' offices, hospitals and elsewhere, including dealers' stocks, have been ordered registered with the Federal Communications Commission by June 8 in accordance with an order of the Defense Communications Board.

Object of the order is to prevent subversive use of such machines by enemy aliens for radio transmission. Diathermy machines not only look like floor-model radios but actually consist of radio transmitters choked off. They generate radio frequency energy designed for use in generating heat within the body tissues for treatment of various ailments.

Seizure by the FBI of two such machines in Newburgh, N. Y., was reported.

The order for registration of diathermy apparatus does not apply, the FCC emphasized, to sun lamps, infra-red lamps or ultraviolet ray devices long sold by drug and department stores. These do not generate radio frequency energy.

Most of the estimated 100,000 diathermy apparatus are in the hands of professional persons, FCC states, "while an appreciable proportion is owned by individuals for private use. There are some portable models; and of the total, a few are not factory made."

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## ASTRONOMY

**Astronomer Awarded Medal  
For Perfecting Camera**

**F**OR perfecting the famous Schmidt camera to the point where it virtually quintuples the seeing power of a telescope, and for other contributions to astronomical optics, James G. Baker of Harvard College Observatory has been awarded the Adolph Lomb Medal for 1942 by the Optical Society of America.

The medal, awarded biennially for noteworthy contributions to optics, will be presented at the annual meeting of the Society next October.

*Science News Letter, May 30, 1942*

# E FIELDS

## PSYCHOLOGY

### Use of Womanpower in War Depends on State of Mind

**S**UCCESSFUL use of womanpower for the war effort demands the aid of psychiatrists, Dr. C. Charles Burlingame, psychiatrist-in-chief of the Neuro-Psychiatric Institute of Hartford Re-treat, declared in his annual report.

"In the field of our immediate necessity, which is actual production and useful man power," he stated, "there is probably nothing that women cannot do equally well, if not better than man, if she is in the frame of mind to attempt it. But we must realize that the successful use of womanpower entails the creating of a state of mind, and that is our particular specialty. There is nothing inherently weak in the physical form and structure of woman as compared with men, and any psychiatrist knows that there is nothing inherently weak about her intellectual or emotional drives.

"As a matter of fact, the emotional drive of a woman is as powerful and, under stress, more enduring than that of man.

"But it is necessary to differentiate custom, social practice and education from intellectual and biologic capacities. The introduction of women into business and industry has had a very beneficial effect upon much of the dead wood found among men who were inclined to ride along upon no more secure grounds than the fact that they were men."

*Science News Letter, May 30, 1942*

## PSYCHIATRY

### Many Mentally Ill Now Getting Shock Treatment

**A**BOUT two out of every 100 patients in America's hospitals for the mentally sick are now being given treatment designed to shock them back to sanity. This is done by large doses of insulin or by metrazol or electric shock. Between 1935 and 1941, 23,651 patients were given insulin shock treatment, 36,839 received metrazol, and in the past

two years 7,769 were treated by electric shock, Dr. Lawrence Kolb and Dr. Victor Vogel, U. S. Public Health Service, reported to the American Psychiatric Association.

More than 85% of American mental disease hospitals are using some form of this shock treatment, they found from questionnaires answered by 305 hospitals.

In order to learn more about the effectiveness of this type of treatment, physicians of the Pennsylvania Hospital made a thorough study of patients discharged after insulin shock treatment for patients suffering from one type of mental sickness, schizophrenia. Before this type of treatment was used, the recovery rate for this ailment was 10%. Since insulin has been used, over a period of several years, this rate has increased more than five times, Dr. Earl D. Bond, of Philadelphia, reported. Even patients discharged two to five years ago remain well twice as frequently as formerly.

Dr. Bond stated that there was some tendency toward relapse after a period of time, with a tendency to level off at about 40% recovery after two years.

Of those treated between 1936 and 1938, 44% were recovered or improved at the end of treatment, but the proportion dropped to 31%, 42% and 33% at the end of three, four and five years respectively.

Of the 106 cases treated between 1939 and 1942, 63% were recovered or much improved at the end of treatment, and 42% were still well at the end of two years.

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## SEISMOLOGY

### New Ecuadorean Earthquake Centered on Ocean Bottom

**N**EW EARTHQUAKE shocks felt in Guayaquil, Ecuador, on Friday, May 15, were not centered at the same point as the ones that caused death and wreckage in the city on the previous day, seismologists of the U. S. Coast and Geodetic Survey informed Science Service after examining wired data transmitted from three American observatories. At least one of the disturbances originated under the sea bottom about 100 miles off the coast, in latitude 1.5 degrees north, longitude 81.5 degrees west. It was a fairly strong shock, beginning at 4:38.6 a.m., E.W.T.

Observatories reporting were those of St. Louis University, and of the U. S. Coast and Geodetic Survey at Tucson, Ariz., and San Juan, P.R.

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## PUBLIC HEALTH

### Silver Varnish Makes Glass Self-Sterilizing

**S**OME of Uncle Sam's spare silver may be put to use in making drinking glasses, bottle caps and similar items self-sterilizing as an aid in the war against germs, it appears from an announcement by Dr. A. Goetz, Dr. R. Tracy and Dr. S. Goetz, of California Institute of Technology. (*Science, May 22*)

A silver-containing "varnish-like, viscous fluid which can be applied by brush, spray or impregnation to various bases like plastics, glass, wood, paper, cloth, etc." has been developed by these scientists.

Surfaces treated with this compound are odorless, tasteless and resistant to wear, weak alkaline and acid action and boiling water. The amount of silver removed from such a surface by the touch of the lips is too small to be poisonous. But tests with germs of the type likely to get on drinking glasses and with molds in cider showed that the compound killed germs quickly and retained its ability to do so over relatively long periods.

The scientists warn that metallic silver itself, for example silver cups or silver-lined cups, cans or bottles, cannot be relied on for germ-killing action because germicidally inert compounds soon form on their surfaces.

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## ZOOLOGY

### Birth to Porcupine Is Rare Blessed Event

**A**RARE event in animal nursery circles, the birth of a baby porcupine to a captive mother, was reported to the American Society of Mammalogists by Prof. Albert R. Shadle and W. R. Ploss of the University of Buffalo. It is believed to be only the second case on record of the birth of a porcupine in captivity.

The baby came into the world rather well able to take care of itself. Prof. Shadle stated that it had its eyes open and was able to walk. It exhibited the regular porcupine defense reactions, to which real meaning was given by the presence of sharp spines among its long black hair. Its incisor teeth were also well developed.

The prickly infant continued nursing until it was three and one-half months old. As it became better acquainted with its human companions, it grew playful and completely tame.

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