

INVENTION

Washing Machine Squeezes Out Water by Air Pressure

► A WASHING machine that squeezes by air pressure the water out of the clothes while still in the washer, just awarded a government patent, is said by the inventor to be economical, simple, safe and efficient in use, and to remove more of the water than other types of machines.

Patent 2,472,682 was granted to Henry J. Rand, Fairfield, Conn., for this household labor-saving device. He has assigned it to the H. J. Rand Washing Machine Corp., Cleveland, Ohio. In connection with its use an air pump is essential. The inventor states that the diaphragm type of compressor used for paint spraying is satisfactory for the purpose.

The squeezer itself is a collapsible lining of the clothes container of the washer. Normally it rests against the sides of the tub, with clothes and water within it. There is an air-tight cover to place over the opening on the top of the tub through which the clothes are inserted. When the washing is completed, ordinary washing machine equipment doing the job, air is removed from the container with the help of the pump, the lining collapses, and the pressure drives out the water through a drain pipe on the tub's bottom.

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DERMATOLOGY

Skin Diseases Barometer of Nation's Financial Status

► A BAROMETER to the nation's financial status can be found in the offices of skin specialists caring for industrial workers, Dr. John Godwin Downing of Boston University School of Medicine declared at the meeting of the American Medical Association.

When a lay-off is impending, a "flood" of patients with "disabling" skin eruptions comes to the industrial skin specialist's office, he said.

"During the lush period of the war there were no cases of malingering; employees never stopped work except when a severe dermatitis occurred, and they returned before it was relieved," he said.

"During the first two months of this year I have had more cases of claims for slight eruptions with which the patient has worked until he was laid off or sensed a layoff. These workers have learned that a slight eruption on the hands can be labeled as disabling."

Dr. Downing sees in this experience an argument against socialized medicine. "When one thinks of the number of claims made for medical care and compensation in this group of industrial cases (where an injury to the plaintiff is supposed to be proved)," he said, "imagine the tremendous

number of claims that will be made for medical care and remuneration under a law that will supply such benefits for all sorts of fancied pains and aches by means of a universal medical program such as socialized medicine."

Dr. Downing explained that it is difficult to distinguish the neurotic from the malingerer. Self-inflicted injuries are caused by primary irritants of the skin—mechanical, physical and chemical—applied with the intention of obtaining compensation, he said. Males predominate in this group. To the expert, the self-inflicted dermatosis (skin trouble) is self-evident, he added.

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MEDICINE

New Sulfa Drug Effective For Internal Infections

► A NEW sulfa drug, called NU-445, is proving effective in fighting infections of the urinary and digestive tracts, Drs. Grayson Carroll and Hollis N. Allen and Miss Helen Flynn of St. Louis reported at the meeting of the American Medical Association.

Some germs that were highly resistant to streptomycin were promptly overcome by the new drug. It is extra useful because it is very soluble, so it can be given by injections into veins and muscles in addition to other ways.

An "attractive feature" of the drug, the scientists reported, is that it apparently is not toxic in the doses needed to clear up infections and patients can take it without being upset by the drug.

Chemical name for NU-445 is 3, 4-dimethyl-5-sulfanilamidoisoxazole.

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MEDICINE

High Toll of Fractures Reported in Ski Accidents

► WOULD-BE skiers may have their enthusiasm dampened by the report that in five years 305 major fractures resulted on the slopes of Mt. Mansfield in the Stowe, Vt., area.

Dr. Robert L. Maynard told the American Medical Association that in addition there were more than 200 patients who were given medical or surgical treatment for other injuries at the small Copley Hospital. This still does not take into account the many who received treatment elsewhere, after suffering injuries on these same slopes.

The ski injuries were most often broken leg bones. Other accidents resulted in broken arms, ribs or pelvis. Dr. Maynard pointed out that twisting strains are responsible in the majority of cases for fractures in the lower part of the body among ski casualties.

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DERMATOLOGY

Skin Blemishes Sanded Away in New Treatment

► SKIN blemishes left by acne and smallpox are sanded away by techniques shown to doctors at the American Medical Association meeting in Atlantic City.

On large areas of skin the sterilized sandpaper is used flat or wrapped over a bandage roll. For fine marks and for getting at curved places, such as around the nose, an electric sander with stones and bristle disks is used.

The techniques are being used by Drs. Claire L. Straith, William G. McEvvitt, Ord C. Blackledge, Morrison Beers and Richard E. Straith, plastic surgeons of Detroit.

Carbon marks, stains and bits of debris that get embedded in the skin in accident cases may also be successfully removed by the sanding procedures. Tattoo marks have been sanded off by the same methods. "Results," say the Detroit doctors, "are gratifying alike to both patient and surgeon."

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MEDICINE

Anti-Blood Clot Drugs Aid By Dilating Arteries

► THE GOOD effects of the anti-blood clot drugs, heparin and dicumarol, are due more to this dilating action on the heart's arteries than to their anti-clotting action.

Studies supporting this new theory of the action of these drugs were reported by Drs. Newell C. Gilbert, George K. Fenn and L. A. Nalefski of Chicago at the meeting of the American Medical Association.

By dilating the heart's arteries, the drugs increase the flow of blood through the heart. This, the Chicago doctors think, is the best means for decreasing the damage done to heart muscles as a result of coronary thrombosis, the condition in which a blood clot plugs a branch of the coronary artery in the heart.

Results of giving the anti-clotting drugs to patients, the Chicago doctors said, parallel those obtained by the use of drugs of the xanthine series which dilate the heart's blood vessels.

Further evidence supporting their theory, they said, comes from reports of benefits from the anti-clotting drugs in other kinds of heart disease, such as angina and cardiac insufficiency. In these there is no reason to expect any result from the anti-clotting action.

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CE FIELDS

MEDICINE

New Approach Saves Lives Of Polio Patients

► COMPLETE success in the treatment of bulbar poliomyelitis by shifting the attack from the virus to the symptoms was reported by Dr. Thomas C. Galloway of Evanston, Ill., and Dr. Martin H. Seifert of Wilmette, Ill., to the American Medical Association.

In the bulbar type of polio the virus affects the lower brain and makes breathing difficult which deprives the body of oxygen. The patients are unable to swallow or spit up and as a result they may "drown" from the saliva which flows back into the lungs.

Recognizing these dangers, the Illinois doctors used suction to clear the breathing passage. By removing the foods, fluids and vomited matter from the airway they gave the lungs a chance to function again and rid themselves of the dangerous accumulation of carbon dioxide.

That their theory was justified is evidenced by the fact that there have been no deaths in 127 patients with polio treated at the Evanston Hospital over a two year period. Fifteen of these had the usually fatal bulbar form of the disease.

In contrast, they reported that 39 patients died out of 105 with bulbar polio outside of Chicago during this period, while in Chicago 10 of 37 bulbar patients died during 1948.

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MEDICINE

New Warning Device Shows Anesthetic Danger

► ELECTRICAL signals from the brain and heart can now be used to give warning when a patient on the operating table is in danger from the nitrous oxide-ether anesthetic given to put him to sleep.

Signs of approaching death can be spotted two minutes earlier by a brain wave machine than by the breathing and pulse rates usually observed by the anesthetist, a Mayo Clinic team reported to the American Medical Association in Atlantic City.

When the regular waves from the brain suddenly flatten out almost to a straight line, after the patient has been quietly sleeping under the anesthetic, the anesthetist knows without any other check that it is time to stop the anesthetic mixture and quickly turn on the oxygen.

This new life-saving development for patients undergoing surgery was developed

by Drs. R. F. Courtin, R. G. Bickford and A. Faulconer, Jr., of the Mayo Clinic.

The method has now been tried in 60 patients. Results have convinced anesthetists and surgeons that operations can proceed more safely than ever with this new warning device to tell them how deeply the unconscious patient is sleeping.

Brain and heart wave records are taken, without affecting the surgeon at his work, by a machine that stands on one side of the anesthetist, while at her other side is her machine for giving the anesthetic and oxygen.

Preliminary trials with cyclopropane instead of the gas and ether mixture suggest that the brain and heart wave signals will be equally effective as lifesaving guides, no matter what anesthetic is used.

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MEDICINE

Correct Gland Disorders To Improve Childbirth

► CORRECTING certain gland disorders in advance will help many women who want babies to have them and also will save many of them from toxemia and other complications of pregnancy, two Mayo Clinic scientists, Drs. Lois A. Day and Philip L. Smith, told members of the American Medical Association.

The women who are going to have trouble in having children can be picked in advance and treatment of them can be started before conception, the two Mayo scientists believe on the basis of their own and other studies.

Women whose ovarian function is disordered, as shown by menstrual disturbances and irregularities, are the ones likely to have trouble in bearing children. Among a group of 425 young married women who came to the Mayo Clinic because of such disturbances, over half, or 237, had been unable to conceive in an average period of six years. The other 188 became pregnant but only 126 living children were born, or less than one child per patient.

Miscarriages, premature babies, toxemias, prolonged labor, stillbirths and malformed infants were the unfortunate experiences of the 188 who became pregnant.

For treatment, the Mayo scientists advised general measures, such as hygienic living and diet, and also improvement of menstrual rhythm by doses of estrogen (female hormone), thyroid hormone, or stimulating X-ray treatment to the pituitary gland and the ovaries. This, they said, will assure a better "seedbed" for pregnancy.

Reducing the number of pelvic operations for lower abdominal or pelvic pain would also, the doctors think, "help to improve the gloomy outlook for these patients."

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MEDICINE

Doctor and Dentist Find Way To Fight Heart Disease

► A WAY to prevent some cases of a serious form of heart disease was reported at the meeting of the American Medical Association by a physician and a dentist.

As many as one out of every five cases of subacute bacterial endocarditis, an inflammation of the lining membrane of the heart, might be prevented, it appears from figures reported by this doctor-dentist team. The physician is Dr. Paul S. Rhoads, the dentist Dr. Warren R. Schram, both of Chicago.

The discovery that 10 out of 53 patients with this heart disease had a tooth pulled one week or ten days before the heart symptoms started led the doctor and dentist into their attack on this situation.

The way to prevent it, they advise, is to give penicillin or the new sulfa drug, No. 445, also called gantrosan, before pulling teeth.

Germs that get into the blood stream after a tooth has been pulled, they explained, can start the heart inflammation, which in many cases is fatal.

When they gave penicillin or the sulfa drug before tooth extraction, less than six percent of the patients had germs in their blood, compared to over 38% in the non-treated patients.

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ENGINEERING

Coral Found To Be Good Aggregate in Concrete

► THE CORAL of the Pacific reefs and atolls is pronounced to be excellent material as a base for airport runways and roads, as in-place foundation material and concrete aggregate, it was revealed by C. Martin Duke of the Los Angeles branch of the University of California who made recent tests on Guam.

Most engineers have held that coral had little value for these purposes, but it was widely used by the U. S. Navy during the war, mainly because it was handy. Its true value has now been determined by experience and special tests. Prof. Duke's investigation shows it to have superior engineering properties. In addition to being a top-grade construction material, it is plentiful.

Mr. Duke lists the reef-derived material in three classifications. One is the geologically young material on top of the reef. This is coral proper. Another is the central mass of the older reefs which is made up of a geologically older material similar to continental limestone, and it can also be used. The third class is "cascajo" which consists of decomposed reef limestone, lagoon sediments, sandy loam and other substances. Its name is a native word of Spanish origin, meaning gravel.

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