**PSYCHIATRY** 

#### Children Need Affection, Acceptance and Approval

➤ CHILDREN NEED the three A's even when they are not bright enough or healthy enough to learn the three R's, Dr. Leo Kanner, director of the children's psychiatric service, Johns Hopkins Hospital, Baltimore, declared at a conference on exceptional children held at the Woods Schools, Langhorne, Pa.

The three A's are affection, acceptance and approval. They are, Dr. Kanner said, "among the principal cornerstones of wholesome development of mental health among the rich and the poor, the ailing and the sturdy, the average and the exceptional."

Too often, he charged, parents, teachers, psychologists and doctors fail to think of how the exceptional child feels about himself and the world.

Delinquency, he said, results not so much from mental deficiency as from the repeated frustrations and humiliations the retarded child suffers in his pathetic attempts to keep up with his classmates and be like them.

Institutions, special schools and classes and psychological tests are just a means, not a solution, to the problem of retarded children, Dr. Seymour B. Sarason of Yale University declared at the conference.

Too often these "create the false impression that we are adequately handling the problems of mental retardation in children when all we are actually doing is putting up with them."

What is needed, he declared, is basic research which at present "is quite conspicuous by its absence."

Science News Letter, May 31, 1952

MAMMALOGY

## Study of Lemmings Now Under Way at Smithsonian

➤ LEMMINGS, the curious rodents that periodically march to the sea to die in great numbers, are now being studied by the Smithsonian Institution.

Nucleus of the study is a collection, probably the most complete in the world, obtained in northern Canada and Greenland by Dr. Charles O. Handley, Jr., of the U. S. National Museum staff.

These short-tailed mouselike rodents inhabit the Arctic tundras of northern America, Europe, and Asia, and may be separated into two main types, Dr. Handley states.

The varying lemming is the only rodent known to change the color of its coat. It is brown or gray in summer and pure white in winter. The brown lemming stays brown all year around.

Scandinavian lemmings, after their population has reached a certain maximum, may start mass migrations. Rivers and towns do not stop them in their relentless march

and they may eventually reach the ocean, where they are drowned by hundreds of thousands. These migrations appear to be due to hunger.

Like their Scandinavian counterparts, the American lemmings undergo great variations in numbers. Over a period of about four seasons they increase until there are literally billions of them that overrun the northern tundra. Then, in a single season, the majority of them die. Their bodies litter the ground and the banks of streams and ponds.

The reason for this apparently automatic check on population is unknown. It certainly is not starvation and is probably some disease or form of parasitism that appears only with over-population.

Science News Letier, May 31, 1952

PUBLIC HEALTH

#### Clean, Dry Dishes For Better Health

➤ WHETHER YOU wipe your dishes dry or let them drain dry may be settled to suit your own convenience.

But for health protection, two points are important: 1. If you wipe them dry, be sure to use clean towels. 2. Be sure the dishes are dry before you put them away. If stored while moist, the few germs that may still be on them after washing may live and multiply quickly.

Hand dishwashing is a drudgery to most people. Maybe the person doing it will find it less bothersome if she—or he—remembers that by doing this job right, she is helping to protect the family's health. Germs of many diseases can spread through dishes and eating utensils unless properly washed.

The right way to wash dishes has been described in a report by John Andrews, Sanitary Engineer of the U. S. Public Health Service. Dishes should first be scraped well to remove all food particles and preferably should be rinsed with water before the real washing is started. For hand dishwashing, Mr. Andrews advises a two- or three-compartment sink that is big enough and has adequate drainboards.

The wash water should be heated to 110 to 120 degrees Fahrenheit, which is about as hot as the hands can stand. It should contain a sufficient amount of soap, soap powder, washing powder or whatever cleansing agent is used. In addition, the dishwasher must use plenty of "elbow grease." If there are a lot of dishes to wash, the water will cool off during the process and the soap or other cleansing agent will get weaker. So the dishwasher must add more soap from time to time, keep the water hot and change it before it gets too dirty.

To sterilize dishes at home, stack them after washing in baskets with long handles and immerse for two minutes in water at least as hot as 170 degrees Fahrenheit.

Science News Letter, May 31, 1952



MEDICINE

#### Amputees' Phantom Limb Works Electrical Arm

➤ PHANTOM LIMBS are now being made to work for instead of against the man or woman who has lost an arm.

A phantom limb is the feeling that the arm or leg is still there. In the past it has been a serious problem for both the amputee and his doctor. Medicines and even psychiatric treatment have been tried, usually with little success, to rid the amputee of this bothersome, sometimes painful limb.

Now the sensations are being used to work an electrical arm under development in Germany, Dr. Henry H. Kessler of Newark, N. J., reported to the meeting of the International College of Surgeons in Madrid, Spain.

Amputees have reported satisfaction with it and it "may prove to be an important step forward in the continuing search for an arm adequate to meet the needs of upper extremity amputees," Dr. Kessler said.

An electrical arm that operates on signals from pneumatic impulses from an insole in the shoes has been developed in the United States by the International Business Machines Corporation, Dr. Kessler said.

This electrical arm has been worn on trial since 1949 by amputee consultants. It is not yet available to other amputees.

The electrical section gives motive power to flex and extend the elbow and wrist, to rotate the hand and to close and open the fingers and thumb of the artificial arm and hand. A small but powerful motor in the forearm shell picks up the pneumatic impulses from the shoe insole. The hand of the electrical arm looks natural as well as being useful. The entire arm, however, is still in the experimental stage.

Science News Letter, May 31, 1952

TECHNOLOGY

#### Thickness Measured By Atomic Gauge

➤ AN ATOMIC thickness gauge that uses strontium 90, a beta-ray emitting waste of uranium fission, is being employed by rubber, plastics and paper producers to save millions of dollars annually, George B. Foster of the Industrial Nucleonics Corporation, Columbus, Ohio, reported to chemists in Cincinnati.

Installed along the production line, the device charts irregularities in the thickness of the product, permitting rapid adjustment of the machines.

Science News Letter, May 31, 1952

# CE FIELDS

TECHNOLOGY

## Milk Tank Trucks More Accurate Than Cans

➤ GIANT MILK-HOLDING vats in California dairies are stealing some of the spotlight away from the familiar 10-gallon milk cans. And creameries, which often pay for more milk than they get, apparently are not sorry.

H. J. McDade, sealer of weights and measures at San Diego, Calif., reported to the National Conference on Weights and Measures in Washington that the tanks will deliver milk to creamery pick-up trucks with an error of only two gallons in a thousand.

The 10-gallon milk cans, because of dents and frothy milk inside, often shortchange California creameries out of 12.5 gallons of milk in a thousand, he said.

Tank sizes of 300 to 3,000 gallons now are in use. Some that are even larger have been reported. The tanks can be refrigerated, but the well-insulated unrefrigerated kind will hold a quantity of milk 10 hours with a maximum temperature change of only two degrees Fahrenheit.

Science News Letter, May 31, 1952

PUBLIC SAFETY

### Safe Clothes Recommended For Wear Around the House

THE RECENT tragedies of "torch sweater" burns of people highlight advice that home economists have been giving housewives for many years.

This advice is that fluffy or fuzzy garments are not suitable for kitchen wear or for wear near any flame or strong heat. Clothes with long, loose sleeves, scarfs, ties or trimmings may be dangerous around stoves, hearths and bonfires.

Besides the danger of fire catching the sleeve, scarf or tie, there is danger that these loose parts of the costume may catch on a door handle or other object and cause a fall or one of those near-falls that wrench an arm or back.

As to fabrics, U. S. Department of Agriculture clothing specialists recommend smooth, closely woven fabric for women's work clothes for both convenience and safety. Fuzzy fabric, especially knitted fabric with brushed-up nap, has air spaces around the lightweight fibers which help keep fire alive, once it catches.

Most people know that fluff burns more readily than a solid mass, but many don't apply this knowledge to the clothes they wear for cooking, burning trash or on other occasions when there may be a fire hazard. However, different fabrics burn very differently. Wool smolders but rarely flames, tends to curl up and choke out fire. A brushed wool sweater that accidentally comes against a hot stove, for example, may have the nap badly singed but probably will not burn down through the foundation.

In contrast, untreated rayon or cotton blazes when it burns, will continue burning if not put out, and is even more of a fire hazard with a fluffy nap. This is why so much research has been done on flame-proof and fire-retardant treatments for these fabrics. Acetate fabrics also blaze, but then the burned edges pucker and curl as they melt to a hard, brittle mass. Nylon melts rather than flames, but, in melting, forms very hot glassy beads that can burn skin on contact with them.

Science News Letter, May 31, 1952

PUBLIC HEALTH

## Follow Old Rule for Cooking Pork Thoroughly

MANY FAMILIES are eating more pork than usual for economic reasons. Whether you cook it at home or eat it at a restaurant, remember the old rule that pork should be cooked until it is white and dry.

The white, dry meat has been thoroughly cooked and thorough cooking of pork is important for avoiding the danger of getting trichinosis. The same rule applies to pork products, from cocktail sausages and hot dogs to such more unusual varieties as mettwurst, which has been reported responsible for trichinosis in more than a score of cases.

Trichinosis is caused by the trichina worm. The larval form of these worms invade the muscles and become encysted there. During the first few days after pork containing encysted larvae has been eaten, the larvae leave the cysts and invade the lining of the intestines. The patient at this stage of the sickness may have symptoms of food poisoning, sometimes with a rash.

The next generation of worm larvae invade the muscles, causing excruciatingly painful muscular rheumatism. This may last for five to six weeks. The muscles used in breathing, speaking, chewing and swallowing may be particularly affected, and there may be swelling around the eyes, nose and temples, and high fever. The disease may be fatal.

The larvae can be killed either by heat or by freezing at 5 degrees Fahrenheit for 20 days. Not all pork and not all sausage and other pork products contain trichina worms. However, unless you know the pork or pork products are certified by state, city or federal authorities as safe for consumption, you should protect yourself by cooking them thoroughly. The rule for this is to cook so that all parts of the meat reach a temperature of at least 150 degrees Fahrenheit.

Science News Letter, May 31, 1952

MEDICINE

### Drugs and Diet For Mucous Colitis

➤ A GOOD many people who suffer pain in the abdomen, or belly, and who are always conscious of their abdomens are suffering from mucous colitis.

The word colitis means inflammation of the colon, or large bowel. This part of the intestinal tract is about five feet long in a grown person and is divided into the ascending, the transverse and the descending sections. Its functions are to handle the indigestible material that is left after digestion and to take up water and sugar.

One type of colitis is mucous colitis. This, according to the Educational Committee of the Illinois State Medical Society, is caused by the spasm and contraction of muscles. There is usually sharp, intermittent pain, and the condition seems more noticeable after meals.

Mucous colitis is common in persons who experience strong emotional crises of fear, worry, fright, hate, confusion or frustration in business or social affairs. It is generally recognized that the digestive tract is affected by these emotional upsets, illustrative of the community relationship between mind and body.

Such common complaints as "butterflies in my stomach," "quivering" and "nervous stomach" seem to precipitate the final contractions or spasms which produce severe pain. The person with mucous colitis localizes his pain almost anywhere in the abdomen, but usually in the descending colon, just above the left hip and towards the middle of the body. Hyperacidity, heartburn and excess gas are other symptoms. Constipation is common and the stools reveal mucus or mucous shreds.

The patient with mucous colitis should be under the care of a physician. A bland or mild diet is often a helpful part of the treatment, with care taken to avoid roughage that might cause obstruction or irritation in the colon.

In patients with true mucous colitis, special drugs can alleviate the intermittent pain, which may persist for hours.

Science News Letter, May 31, 1952

CHEMISTRY

### Low Pressures Prevent Corrosion from Chemicals

➤ WHEN LIQUIDS are concentrated at low pressures and temperatures, their corrosion rate on the still often is reduced materially, E. J. Kelly of the Carrier Corporation, Los Angeles, reported to the American Institute of Chemical Engineers meeting in French Lick, Ind.

By using low pressures, water can be driven from the liquid at lower temperatures. Since many chemicals are less active when cold, corrosion and in many cases scale-formation can be cut, he said.

Science News Letter, May 31, 1952