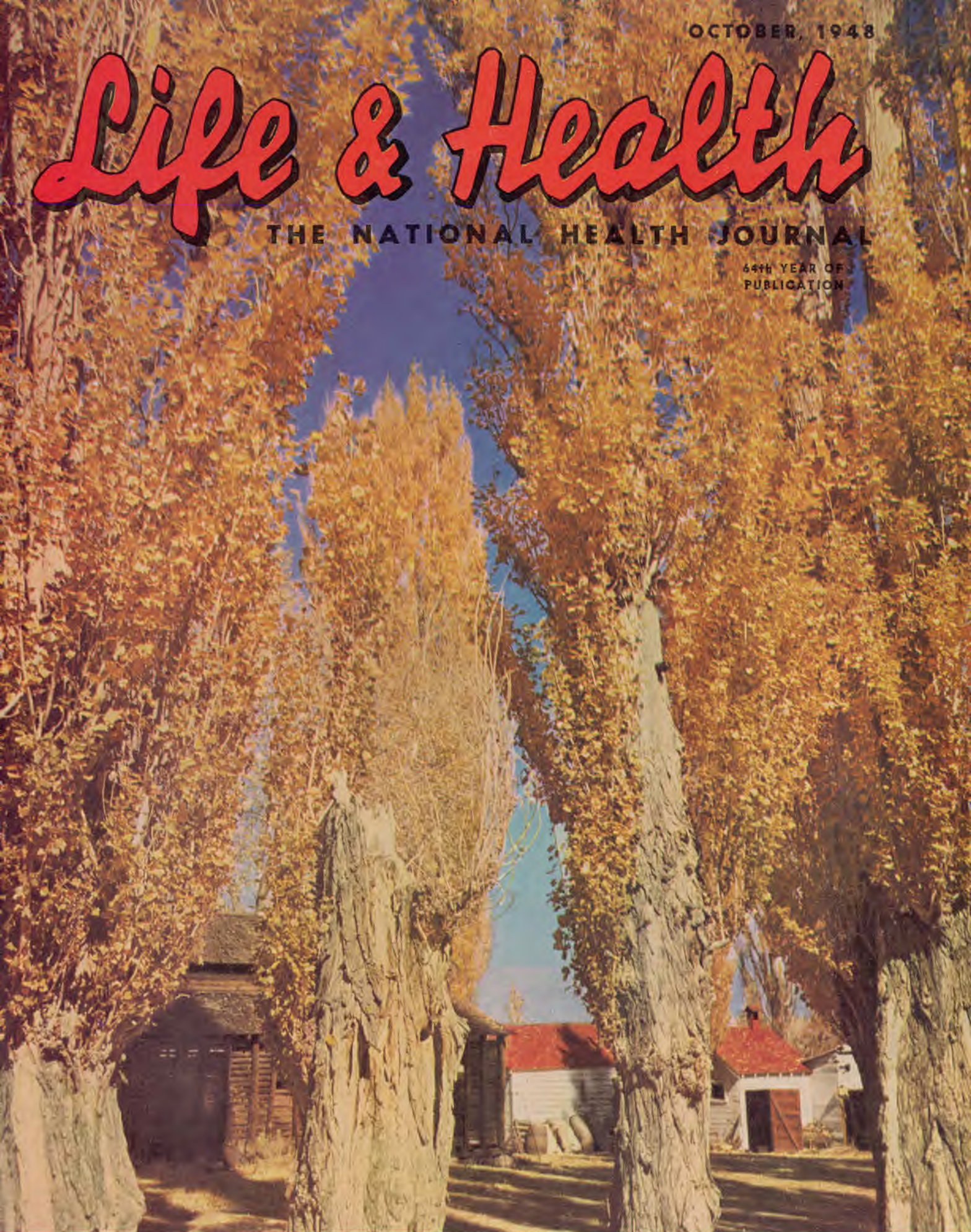


OCTOBER, 1948

Life & Health

THE NATIONAL HEALTH JOURNAL

64TH YEAR OF
PUBLICATION



42 • HOLLAND

- ★ Be Wise—Immunize. Protect Your Child
- ★ Bassinet Psychology for Mothers
- ★ The Doctor Takes a Look at Alcoholism

- ★ America Ablaze. Let's Do Something
- ★ The Story Behind Your Doctor
- ★ Facts and Figures for the Overweight

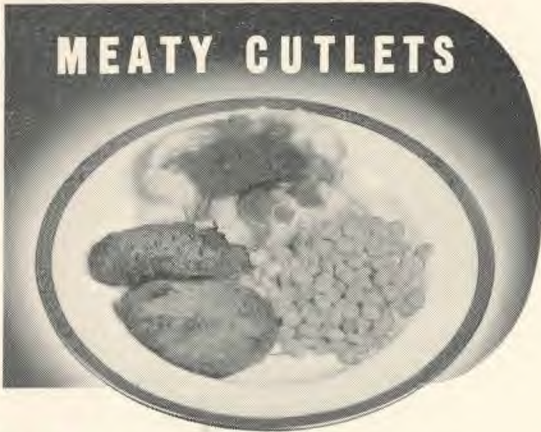


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The Editor's Comments

SALT AND HIGH BLOOD PRESSURE

A SCIENTIST studying the problem of high blood pressure not long ago discovered that he could produce this malady in rats or rabbits more or less at will by performing a very simple operation on their kidneys. If but one kidney was operated upon, the blood pressure was elevated to only a moderate degree. When the operation was performed on both kidneys, the blood pressure became elevated still higher, and a larger percentage of the animals developed pressure symptoms.

After determining that rats were the simplest and easiest animals on which to work, Dr. A. Grollman began a very interesting study on diets and what effect they might have on the high blood pressure of these experimental animals. The first diet was one in which practically all the chlorides and sodium were removed. This would correspond to removing all the table salt or any food containing the elements of salt (sodium and chlorides) from the diet.

Twelve animals with high blood pressure were selected and were changed from their ordinary diet to the new low-salt or almost salt-free diet. In six days' time their blood pressure dropped to a low level, and it remained at the low level for eighteen days. The same rats were returned to their ordinary diet, and in exactly six days they again were suffering from high blood pressure.

Another group of rats with high blood pressure was fed a diet composed entirely of ground peanuts, soybeans, rice, and potatoes. Again a drop in blood pressure occurred.

To determine exactly what was causing the drop in blood pressure, the experimenter added to the salt-free diet just one per cent salt. Immediately the blood pressure of the animals shot up toward original high levels.

"From this and other data it seemed probable that radical sodium restriction is the essential factor in overcoming renal hypertension in rats." So stated the reviewer of this intensely interesting experiment.

The final account of this research revealed that animals made hypertensive and then kept on a very low sodium intake had a survival rate twice as great as those animals which were given the ordinary laboratory diet in which there was no restriction of sodium; that is, they were not curtailed in their use of table salt. The reviewer sums up this part of the experiment by saying, "The low-sodium, anti-hypertensive diet is thus apparently beneficial insofar as duration of life is concerned."

Sodium, which is the offending element as far as salt is concerned, tends to bind water in the body tissues. As soon as this element is reduced in the diet, the bound-up salt and water is eliminated from the tissues, and a reduction of blood pressure occurs. This is one of the principles on which the currently popular diet of rice, fruit, and a low-salt content is prescribed to individuals suffering with special types of high blood pressure.

May we point out that in the normal individual, and even in persons suffering with high blood pressure, not all the salt is taken out of the diet. Salt is a very essential element of the blood and of all tissue cells. It is necessary in maintaining life.

It is the excess of salt that is harmful. That additional layer of salt that some folks so liberally sprinkle on their food after it has already been seasoned by the cook is what may produce harm, even for a normal person. For those suffering from high blood pressure or heart trouble, where there is a tendency for the tissues to become waterlogged, salt restriction is now felt to be of definite benefit.



NEWS IN Small Doses

- MENDING a garment before washing is a good way to conserve it.
- FALLS are the nation's number two accident killer. The household stepladder is said to be more deadly than the airplane.
- VITAMIN K offers definite relief in the treatment of chilblains, according to Dr. D. P. Wheatley, reporting his studies in the *British Medical Journal*.
- ABOUT one fourth of all physical energy you expend is used in just seeing things. If there is something wrong with your eyes, more energy is required.
- CLEVELAND has topped all other cities of more than 500,000 population four times now as being the safest city in the nation. In 1947 it had a 17 per cent reduction in the number of traffic deaths over 1946.
- A SYSTEM-WIDE decrease of 13.51 per cent in employee accidents and personal injuries per 10,000 work hours for the first quarter of 1948, as compared with the same period last year, is reported by the Railway Express Agency.
- THREE Michigan investigators, reporting on an extensive study of some 15,300 individual living specimens to isolate the poliomyelitis virus, conclude that the best evidence of the transmission of the disease supports a person-to-person transfer.

● GROOMMASTER, a portable electric shoe shiner for homes and business, is a new addition to labor-saving devices. Manchester Machine Company of Saint James, Missouri, announces the home model and the bench model, the latter adapted for use by porters in hotels, clubs, and large business concerns.

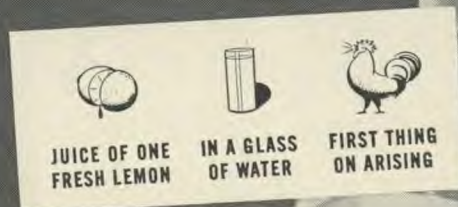
● A SURVEY made in three New Jersey communities whose domestic water supplies contain small amounts of fluorine reveal that children who drink such water developed only about half as much dental decay as children who lived in neighboring communities with fluorine-free water supplies, reports Dr. Henry Klein, of the United States Public Health Service, in the *Journal of the American Dental Association*.

THE COVER

Warm days and frost-bitten nights are the mediums nature uses to paint her gorgeous landscapes in the autumn.

The colorful picture of Lombardy poplars on our cover for this month was made in Kodachrome at the Arcularius Ranch, Inyo County, California, by Robert P. Holland.

Here's a
healthful way to
**KEEP
REGULAR**



You've always known that lemons are among the most healthful fruits. But did you realize that the juice of a lemon in a glass of water, when taken first thing on arising, is all that many people need to insure prompt, normal elimination?

No more harsh laxatives that irritate the digestive tract and impair nutrition! No more worrying: "Shall I take a laxative today or wait till tomorrow?" Lemon in water is good for you every day!

Generations of Americans have taken lemons for health—and generations of doctors have recommended them. They're among the richest sources of vitamin C; supply valuable amounts of B₁ and P. They help prevent colds. They alkalinize, aid digestion.

Not too sharp or sour, lemon in water has a refreshing tang—clears the mouth, wakes you up. It's not a purgative—simply helps your system regulate itself. Try it 10 days.



Keep regular the healthful way!

LEMON in WATER
—first thing on arising

● SEVEN out of ten American housewives say milk is the most important of a long list of foods, according to a recent Opinion Research survey. Green vegetables and meat ran poor seconds. Another striking opinion gathered from the survey is that milk is the last of the foods that 71 per cent of the housewives will cut down on in an inflationary situation.

● THE first State-wide nursing exhibition will be held at the Cleveland Health Museum in October. This exhibit, "What Nurses Do," will then be featured in special showings throughout the State. The objective is threefold: to attract qualified young women to the nursing profession, to inform the public of the educational background of graduate registered nurses and the value of their services to the community, and to emphasize the various types of duties in the six major nursing fields. These exhibits will outline student nurse education, postgraduate education and training, public health nursing, school nursing, industrial nursing, and private practice nursing.

● A RESEARCH grant of \$9,000 has been awarded by the Formfit Company of Chicago to the University of Illinois College of Medicine for studies designed to determine the relationship of the wearing of tight-laced corsets by women to gastric ulcers and other internal disorders. The research program will be conducted by the university's department of clinical science, headed by Dr. A. C. Ivy, and will continue for approximately one year. The project will include studies of gastric functions, the shape of the stomach, the rate at which the stomach empties, and the acidity of its gastric content before and after compression of the waist. Observations will be made by means of X-ray and fluoroscopy.

● A STRIKING comparison between expenditures for maintenance of religion and those made for nonessentials reveals that people give to all philanthropies an amount only about one third more than that which they spend for soft drinks, and that their expenditures for tobacco, or for gas and oil for automobiles, each exceeds their philanthropic contributions.



The Doctor Takes a Look at

ALCOHOLISM

▲ SUE THOMPSON GOULD, M. D.

IT IS estimated that among the millions of so-called temperate drinkers in the United States there are about 2,500,000 suffering from alcoholism. Among these are two types: first, the nuisance drinker, who is a bother and a troublemaker to friends, relatives, and community; and second, the drinker who may have serious ailments of heart, arteries, kidneys, or liver, and who, although not necessarily a problem to the community, is a medical problem to his physician. Both these types may decide again and again to quit drinking, but their intentions waver again and again, until, finally, their greatest desire is to get a drink at once. Helpless they've become—about 200,000 of them.

Wittman has divided the total group into four subtypes for purposes of suitable and successful approach in treatment, thus: first, those with an underlying major mental disease; second, the inadequate, immature persons who have learned to relieve tensions by escape from conflict through using alcohol; third, the definitely handicapped, as, for example, the patient of retarded intelligence; and fourth, the patient with mental disease produced by alcohol, such as the patient with a paranoid condition or definite psychosis.

Each nationality has its characteristic drink. The Scot has his whisky, the Italian his wine, the Japanese his sake, and the Russian his vodka. No matter what the alcoholic drink of the country, in each the same problem persists. Why is alcohol a world-wide problem? Because everywhere it gives the drinker a sense of importance—an undue sense of importance—and so satisfies one of the greatest urges in human nature. He feels that all his problems are solved. He craves this solution, this means of evasion.

What are the causes of the craving that creates the problem? The excessive drinker cannot face the realities of life. He may have had a poor family environment. He was probably not taught to stand on his own feet as a child. Someone has stood between him and hardships. His moral fiber has not been toughened by standing up to grief and trial and

by meeting difficulties. Then when he finally has to face such things he finds that a way of escape through alcohol is pleasant. An alcoholic state becomes for him a rosy state of reality freed from hurdles. His job is forgotten; ills take their departure; nagging commits hara-kiri; worries, ostrich-like, bury their heads.

The doctor in time is called to the scene. He finds the alcoholic an immature, dependent type of person. Hollingsworth says, "Greater susceptibility to alcohol characterizes the inferior individual. . . . It is the least competent who are most disastrously affected by the drug."

The doctor makes a diagnostic study of his patient's personality. He gives the patient props until he is able to walk alone. He tries to create in his patient a sincere desire to wish for help to overcome his alcoholism.

In a recent survey of all the scientific evidence on this subject entitled *Alcohol Explored*, Doctors Haggard and Jellinek, of Yale University, point out that scientists differ much when they try to describe the effects of moderate drinking. All personal opinions concerning alcohol are decidedly positive.

In Boston Doctors Dodge and Benedict experimented on thirteen young men, three of whom were under treatment for alcoholism. The others were moderate users. It was found that the most marked effect of alcohol was a delaying of the knee jerk by 10 per cent. The speed of winking of the eyes was reduced 7 per cent. The larger doses showed constantly greater effects than the smaller. Pricking the skin after a drink was not felt so acutely. Ability to feel pain was lessened. When the eyes were swept, movements were delayed. Heartbeats were faster, because the nerves holding them in check were partially paralyzed. The higher mental processes, such as memory, speed of thought, ability

to do mathematics, to write, or to make a speech, were affected least, while the more automatic functions were affected most.

You ask how alcohol affects a man's judgment. To the drinker it appears to solve all problems. He wants to feel this way. In an act involving judgment plus hearing, ability is decreased. Vision and sensation are lessened. Nearly all human conduct is the result of conscious or unconscious judgments based on our sensations. The loss of ability to judge the reports of our senses so as to guide our conduct intelligently is the heart of the alcohol problem.

Ever since physical and mental deterioration were found to accompany the abuse of alcohol, each country has attempted various methods of control. In America prohibition measures were tried. Americans do not like being coerced. Education and research helped. The medical profession has halted in leadership. The problem has been largely left to the church and the courts. The alcoholic suffers from chronic poisoning. Alcohol poisoning is more difficult to alleviate than poisoning from a food or a drug, for the alcoholic's ego says, "I will do as I please. Leave me alone."

The church, the medical profession, and the courts must all work together to create in the patient a new wish to get well. Psychotherapy must be used to create a readjustment of the patient's thinking process, if treatment is to succeed. In the conditioned reflex treatment an emetic is injected, and then an alcoholic drink is given. The patient becomes frightfully sick, retches, and vomits. A repetition of this experience may develop a decided aversion to alcohol. He who could not pass a tavern becomes a convert. In order to prevent a relapse, however, the patient should be given a series of accessory single treatments to fix his aversion in his mind.


Underlying personal problems must be ferreted out and solved after the patient is freed of all alcohol. No benefit comes from attempting a solution of these problems when his mind is narcotized by this poison.

The patient must be kept under supervisory guidance. At first he should be in a hospital environment where he is protected from temptation. Later he may go home or to work during the daytime. Still later he may remain home at night too, but should report to the physician at his office or the hospital from one to several times a week. As time progresses, the interval is prolonged, but preferably some tab should be kept on the patient permanently by his doctor. The doctor or

social worker should discuss the patient's follow-up with his employer and have a social worker make the necessary social adjustments in the home. The patient's wife and family must be on the alert to help follow the doctor's prescription for his patient.

It has been found profitable to find social contacts and entertainment for the patient where he will not face the temptation "to take a drink." Social clubs of nondrinkers may be formed. The fellowships of Alcoholics Anonymous have been found invaluable by a vast army of drinkers. At weekly meetings the members tell their experiences in a public confession outlet. They visit members and prospective members and help them obtain medical services from one of the profession who is interested. They help hospitalize others, visit them in the hospital, visit their families, help arrange financial aid if needed, and help to solve personal problems. They arrange social meetings and clubs in other cities for others with like difficulties.

With these modern, progressive methods of attacking the alcohol problem through the medical profession, through civic, church, and social groups, and through education, there is hope that there will not always be as two and a half million intemperates in our country suffering from alcoholism.



At First the Patient Should Be in a Hospital Environment, Where He Is Protected From Temptation and Has Medical Supervision. Later He Can Spend Some Time at Home or at His Work, but Should Report to His Physician Regularly

EDDORRBERG ILLUSTRATIONS, INC.

GRANDMA'S trial-and-error system of raising babies had one good error: she spoiled the little chap. Without knowing it, she was a natural socializer and a born psychologist in her own right.

Current psychologists with all their expensive laboratories, enlarging clinics, and files of case records at their disposal are finding that all roads in the early socializing of the child lead to the one of common sense, one of following simple instincts. They have come to have a new respect for old methods—the rocking chair and the lullaby. As true scientists, they give credit where credit is due.

The best authorities on child psychology are turning about-face. They are setting out to prove that many of the socially maladjusted and retarded adults got off to a bad start in the bassinet.

The child that was watered, sunned, and fed in a vegetative kind of routine is in the red as far as his probability of growing into a lively extrovert can be hoped for. What happens in baby's social life the first four or five years determines in a large way what he will be when he grows up.

These formative years often tell whether he will be a frustrated, withdrawn-into-himself sort of individual, or whether he will give full play to his broader potentialities.

Before baby can distinguish a moving object, when his age is still being stated in weeks, he will respond when mother lovingly picks him up. Those early half-whimpering and half-grateful gurgles are part of the long-remembered sweetness of motherhood.

Socialization should be the first objective in rearing a child, if the grow-

Bassinet Psychology for Mothers

BY MILDRED SUMMERFIELD, R.N.

A Mother's Natural Instinct Is to Cuddle and Rock Her Infant. The Bond Thus Formed Gives Her Babe His First Social Stimulation and Sense of Security.

ing human organism is to arrive at adulthood without a distorted ego. He must be nurtured amid loving and tender associates, or, better still, as soon as he is old enough he should be exposed to the rigors of competition with others of the same age.

Not a few sound psychologists trace evidences of neuroses in their patients back twenty or thirty years to an emotional upset during their babyhood.

Children who got in on the ground floor of the then new psychology at the turn of the century were reared in the great silences. Those unfortunate tots were marooned, lonely crib babies, pensioned off with tinker toy and bottle. They were too infrequently held or cuddled. Nowhere in that generation's handbooks of how to rear a child was there such a note tucked in as, "Play with the baby and fondle him a few minutes periodically during the day." That would have been heresy!

In 1928 a best seller on childhood claimed that parenthood, the oldest profession, was facing failure. It was, at that time, with the psychological tenets of solitary confinement for infants and small children. But the divine principle



of maternal instinct cropped out in spite of the new science, so-called. Everyone knows that a mother's natural instinct is to cuddle and rock her infant. Why frustrate a particularly spiritual union with the new human trusted to her for so short a while? The bond thus formed gives her babe his first social stimulation and sense of security.

Students of native peoples tell us that the most peaceful of all primitive people are the Samoans. Their confiding trustfulness is traced to a happy childhood. From the time of their birth they are a constant part of the family unit. No wonder the world weary set out for the South Seas!

The old system of isolating the baby, of giving him a room to himself, was unwise. It was almost as bad as shunting him off with a morose servant. It was held that he must learn early to depend on himself. No one denies that individual independence is a splendid thing to encourage, but not that early. How can he be resourceful when he has nothing from experience to draw on? He is like the fiddler without a teacher or a book of instructions. Only the rare soul can play by ear, and only the rare child can survive a lonely, neglected babyhood and not become asocial or develop into a bland, impassive child, lacking in charm and sociability.

An investigator on this subject inspected a large day nursery that was run in connection with an orphanage. The discipline of the docile array of children from the institution was a matter of pride to the matron. The children who seemed to have spirit and life were the ones who went home to their mothers at night. Those happy evenings with their parents prevented their becoming little human automatons.

In institutions there is not enough love to go around! That is why far-sighted reformers in social fields are trying to replace orphanages and rule-of-thumb nurseries with the affection of "placed mothers."

Mothers, it is your privilege to supply love and the needed surprises, the little jokes, the banter, the whimsical exchange in play—all of them ingredients necessary to develop a normal personality.

Children need spontaneous laughter. They need praise and the social impacts that go with normal family life. The eventless tenor of the institution makes a poor social dietary.



The tensions and mild free-for-alls of the average household are stimulating. They toughen the child for the altercations he is sure to meet with in later life. The premium on mild behavior makes for serenity for the caretaker and nurse but numbs the budding soul.

We can take a good cue from nature. From the lower forms of animal life to the highest we see that as the intelligence increases so likewise does the child-parent association increase.

Parents, do not miss the opportunity to play with your child. He will never forget it, and it is a good investment. The warmth generated thereby will cover up many other shortcomings you may have. Besides, it is little short of vicious to keep a child in cribbed bondage, orphaned in a corral, in his own home, learning to depend on himself. One does pretty well to depend on himself at forty, with a lifetime of experience and past learning to draw on. So for better and happier babies—love them.



HOW TO LOSE YOUR TEMPER

By D. A. DELAFIELD

"The family was seated at the dinner table. Both father and mother were very tired. But the children, who had been playing out of doors, were in high spirits. Finally, the noise and clamor reached an unbearable crescendo for the taut nerves of the father, and there was an explosion. In the silence that followed, four-year-old Jimmy turned to his father and asked, 'Are you mad, Daddy?'"

"No, I'm not mad," replied the father, "I'm just full of righteous wrath!"

"Greatly impressed, the youngster explained, 'I want to be full of radishes, too!'"

In telling this story, Thorwald W. Bender explains that the boy's remark had the desired effect. "The tension was released, as everyone laughed. The father has remembered ever since that much of this so-called 'righteous wrath' is no more than so much 'radishes.'"

If we will examine our "fits of temper," we will usually find bunches of radishes. There is a sharp taste in the mouth. And that's all. There is seldom any justification. It is seldom that we are confronted with reasonable causes for righteous indignation. Mostly, we are just plain "out of sorts," and "fly off the handle" because someone has "crossed our path," and we don't like it. Anger is supposed to be a compensating factor in adjusting ourselves to an offended mood, but it is more like the storm that precedes the calm of regret and self-reproach. It is unwise, destructive, and wanton. No man has a right to take out his meanness on his wife, his children, his employees, or his livestock. Worst of all, the victim of petulance indulges a temporary insanity that, like the howling wind, "blows out the candle of his own mind."

When should we be angry? Never, of course. But, more specifically, never when we are offended, when we are reproved, when others succeed, when we fail, when we are in trouble, when we see good in others that we do not see in ourselves, when our wife's religion is different from ours, and when our boss belongs to another political party. Never be angry, for these or other "good reasons." It doesn't pay, and, it's childish!

If you lose your temper frequently, remember that there is just one cure for you. That is to lose your temper—lose it so completely that you will never find it again. Bury the hatchet so deeply in the past that memory will fail to register the last incident. Bury the handle, too, so that there will be nothing to hold onto. If you are still undecided, take a mirror and look at your face the next time you "blow up." You'll be convinced that the hour has come to do something about your temper. And don't forget, when good resolutions fail to gain the victory, ask God to help you. There are no "radishes" growing in the garden of prayer, but you'll find the fragrant flowers of patience and good will springing up in your heart as you come to Him for help and deliverance.

AMERICA ABLAZE

Let's Do Something About It



By
BOB FINEHOUT

*A Specially Prepared Article for
LIFE & HEALTH by a Staff
Member of the Fire Protection
Institute*



THREE LIONS PHOTO

*A Phone Call Which Takes the Housewife
Away From Her Ironing May End in Disaster
If She Forgets to Disconnect the Iron*



C. LANEY
PHOTO

AMERICA is being choked by fire. Each year fire's flaming fingers squeeze out greater losses. In 1947 alone fire gutted and razed nearly 700,000,000 dollars in property and claimed 11,000 lives. This year the fire loss, based on a 7 per cent increase shown in the first few months over a similar period in 1947, may exceed 750,000,000 dollars.

But, as fire continues its searing, scorching march, people do little to stem its frightful advance. Statistics on losses, from such reliable sources as the National Safety Council and the National Fire Protection Association, fall upon deaf ears. It is only when there is a spectacular disaster that America sits up and takes notice. Such a disaster was Texas City.

In the spring of 1947 the nation was shocked when fire all but devastated that American industrial community. The damage to factories and homes was reckoned in the millions, and the loss of life approached five hundred. For a few days people were fire-conscious. But for only a few days. When news of the holocaust no longer commanded the front page, Americans slipped back into their old complacency. It is upon this complacency that fire feeds.

In view of the sky-rocketing fire losses, it is time America was awakened. The NFPA realizes this. So do the National Board of Fire Underwriters, the United States Office of Education, and most civic groups throughout the country. But to arouse the nation from its fire lethargy is no easy job. These groups have been trying to do it for years.

Every year when Fire Prevention Week is proclaimed the Underwriters and the NFPA deluge the country with posters, handbills, and statistics showing the terrible price we pay for fire damage. Boy Scouts, chambers of commerce, and department stores cooperate on window displays and demonstrations exposing the ravages of smoke and flame. Yet they seem to have little effect on the people. At any rate, the spirited interest these groups have taken has hardly caused fire losses to drop off.

Many fire-protection authorities maintain that Americans should be "fire educated." By this the experts mean that fire prevention and protection should become a part of the school curriculum. They cite as an example of this education, Woodboro, Texas, which has had a total fire loss of less than nine hundred dollars in the past eleven years. This remarkable record is attributed to the town's insistence that each school child attend weekly classes on recognition of fire hazards and methods of extinguishing blazes.

So successful has the program become that Woodsboro's fire chief stated recently, "Every youngster really wants to be a fireman when he grows up." The kids learn about fire prevention and fire fighting under experienced firemen. Each youngster becomes familiar with the operation of approved fire extinguishers and other equipment, in addition to being able to spot hazards. In turn, the children impart this knowledge to their parents. For the record the nation's annual cost for fire per person is \$3.37. The townspeople of Woodsboro pay 5.6 cents!

Ignorance of fire hazards is, of course, the chief cause of fire. This is where fire education comes in. Americans must be taught that such a practice as substituting pennies for fuses is dangerous.

Shamefully few Americans realize that the fuse is the safety valve of the entire electric circuit. To replace it with a penny or "jumper" is playing with fire. But such misuse of the fuse box is only one of the dangerous habits people have concerning electricity.

As a case in point, at least forty fires each day are caused by carelessness with the electric iron. Consider this typical example. A housewife is ironing the week's wash. The phone rings. She places the iron on the metal stand and goes out to answer the call. Fifteen or twenty minutes later she smells smoke and dashes into the kitchen. She finds the ironing board smoldering, her clothes ruined. The housewife had violated the first commandment of ironing: when not using the iron disconnect it.

The male members of the family have little, if any, more



**SAFETY
FIRST**

**BE
CAREFUL**

A Tiny Blaze, Uncontrolled, Can Become a Conflagration. Give Your Fire Department a Chance Early

respect for electricity. The average husband thinks nothing of draping extension cords over hooks, or using a wall outlet as a power source for five or six appliances.

But the husband who turns handy man causes most of the trouble. Only a qualified electrician should make any but the simplest electrical repairs. There is even a technique to splicing wire that most amateurs do not have. Of course, it is going to be difficult to squelch the male longing to tinker with electricity. But until this is accomplished, losses from electrical fires will continue to be high.

Carelessness with cigarettes and matches ranks as the number one cause of all fires. After years of verbal head pounding by the Safety Council and the Fire Protection Association, people still smoke in bed, toss butts indiscriminately, and chuck glowing matches into wastebaskets. Amer-

ica has not acquired smoking sanity. Matches and cigarettes are responsible for starting at least 30 per cent of all fires.

Safety experts do not exaggerate when they issue reminders that most of the accidents occur in the home. Almost two thousand women lose their lives annually from burns and scalding while cooking and working in the kitchen. It is little wonder, then, that fire-protection authorities urge homeowners to buy approved fire extinguishers just in case. The vital weapons are responsible for putting out a third of the nation's fires. Factories, schools, stores, and hospitals have learned the value of fire extinguishers, but it is sad to relate that few of the nation's homes are equipped with them. And more than 270,000 dwellings catch on fire every year!

Day by day the banshee wail of the fire siren becomes louder. Hamlets and townships, cities and metropolises, are learning firsthand that fire is on a wild, devastating witch's flight.

It leaves in its wake scorched fields, gutted buildings, and charred bodies—grim evidence that America is *not* prepared for fire.

One Carelessly Discarded Cigarette May Well Have Started the Costly Blaze Pictured Below. Fire Protection Authorities Point Out That at Least 30 Per Cent of the Nation's Fires Are Caused by Smoking Carelessness





**THE STORY
BEHIND
YOUR DOCTOR**

Modern Operating Technique Has Come a Long Way From the Days When the Above Picture Was Taken Showing Dr. Lister Experimenting With His Carbolic Spray to Reduce Wound Infection

© THE AMERICAN WEEKLY

The March of Medicine

WHEN one experiences care at the hands of a physician at the present time, with the knowledge necessary to the solution of a problem, the use of such laboratory aids as may be necessary, and the administration of medicines, or physical measures as are indicated by the diagnosis made, he is not apt to think of the background which makes all this necessary. Back of the doctor stands an agelong heritage of medical wisdom and a remarkable array of present-day facilities which make possible recovery from disease that was impossible a century or even a decade ago. Only when one understands something of this background can he fully appreciate the service which his doctor is in a position to render in this year of our Lord, nineteen-hundred and forty-eight.

As has been pointed out previously, the study of a patient's disease involves first of all a recitation by the patient or others of his symptoms which have made their appearance, and an examination of the patient to see how this particular disease has altered his physical being. This has been the procedure since time out of mind, and this relationship between the patient and his physician is one of the oldest of human relationships. No doubt the sick individuals of ancient Egypt, Babylon, Assyria, and Greece were as heartened by the appearance of the physician then as folks are today when his automobile stops at the curb and he enters with his little bag of tricks. But the science of medicine has made tremen-

dous strides in the many centuries which have intervened between that day and this.

For literally thousands of years the physician was able to learn his art by hearing or reading what his predecessors had observed and concluded, and pondering over conclusions that were based upon faulty information as to the structure and function of the human body. Nevertheless, it is remarkable what astute observers some of these ancients were. For example, the books of Hippocrates, which are presumed to have been written between 2,300 and 2,700 years ago, are full of gems of wisdom which appeal to the well-trained doctor today. The written works of the learned physicians of all ages have been the textbooks of succeeding generations of practitioners. In this sense, the science of medicine is an accumulative art. Each generation adds to the knowledge of his fathers, correcting minor details of certain aspects of disease, discarding theories which are found to be erroneous or faulty. New discoveries are promptly utilized in the diagnosis and treatment of disease.

It would be too tedious to the lay reader to make any extensive review of the discoveries of medicine throughout its long history, for this story is a history in itself. It is pertinent to point out some of the discoveries in the past century and a half, for it is within this relatively short period that the greatest advances in this science have come. It is of interest to know that only a comparatively few short years ago was the stetho-

scope introduced as a medical instrument which has opened new fields of study of the behavior of certain diseases of the heart and lungs. Now every graduate physician is presumed to have a good working knowledge of this important instrument.

It was scarcely a century ago that the microscope was put to use in the study of human tissues in an effort to understand their normal structure as well as the changes produced by disease. The microscope also made possible the science of bacteriology, less than seventy-five years old. The surgeons who attended the wounded of the American Civil War considered infection in a wound as a necessary evil, and surgical antiseptics or asepsis was unknown. The knowledge of bacterial diseases has made possible the wonderful development of serums and vaccines used in the prevention and cure of disease. It has also led to the development of the group of sulfonamide drugs, which have had so much publicity in the past few years, and of the still newer penicillin, the miracle medicine. There were more soldiers that died of typhoid fever alone than from bullets in the Spanish-American War. In World War II, thanks to the knowledge of control of this disease by vaccination, typhoid fever was essentially a nonentity.

The science of anesthesia is now just about a century old. It is hard to believe that throughout the long hard centuries leading up to the last one, those who were obliged to endure

Tuberculosis of the lungs can be discovered in its earliest stages, when cure can be most readily effected. The treatment of fractures has become almost an exact science, for not only can the exact situation be discovered on the X-ray film, but the progress of healing can be checked at suitable intervals. It has become possible to explore in considerable detail the structural changes in the internal viscera—the heart and lungs, the stomach and intestines, the kidneys and bladder; and even the brain and spinal cord can be studied by specialized methods. All this makes possible a more exact diagnosis of the nature of disease and usually at a much earlier period than was possible even a short generation ago.

Meanwhile, the advances in chemistry and pharmacy have (Turn to page 32)

No. 10
LAST ARTICLE ON
You and Your Doctor

An Anesthetic of an Oxygen Ether Mixture Being Applied to a Patient in a Large New York Hospital

GALLOWAY



PHILIP A. CARPENTER, M.D

the suffering incident to surgery had little to assuage their pain aside from the minor effects of alcoholic intoxication sometimes resorted to. Perhaps the only alternatives were the use of cocaine derivatives thought to be used by the ancient Incas, or the production of unconsciousness by partial strangulation, utilized by the Assyrians before minor operations. Today the patient is mercifully put to sleep, and he is blissfully oblivious of the experience that his forebears must have remembered with horror the rest of their lives.

Asepsis and the use of anesthetics have made possible the modern refinement of the surgical art. A century ago the stouthearted surgeon simply rolled up his sleeves, steeled his nerves against the outcries of the patient, and performed his operation as quickly as possible. Then the patient was left to the residual potencies of his resistance against the almost certain wound infection and the tender mercies of untrained attendants. Now, with the assurance that there will be no infection (unless the surgical lesion in itself is infected) and that the patient is insensitive to the necessary surgical trauma, the surgeon can give his prime attention to the work which has to be done. It is not surprising that surgical skill has risen to undreamed of perfection at the hands of those properly trained.

The introduction of the use of X-rays in medical diagnosis took place less than fifty years ago. With this facility the diagnosis of internal disease has been remarkably facilitated.



The Dietitian Says...

Conducted by LUCILLE J. GOTHAM, Dietitian



This department serves as an aid to our subscribers in their dietetic problems. For information regarding some particular food or diet, address: The Dietitian, LIFE AND HEALTH, Takoma Park, Washington 12, D.C. Enclose stamped, addressed envelope for reply.

Refreshments at Night

Is it harmful to eat light refreshments such as fruit salad or fruit punch with crackers or plain cookies at 10 P.M.?

It is best for the digestive tract and other parts of the body, such as the nerves, to eat nothing after the evening meal. Eating late at night means prolonged hours of work for the stomach. Recent research has shown that the food eaten late in the day is most likely to make you fat. It is bad for the figure to take evening refreshments. Fruit punch would probably be least objectionable for most folks if something were indulged in occasionally.

Vegetarian Menus

Would you please print some vegetarian menus? This inquiry is prompted by an article appearing in your magazine entitled "Why We Don't Serve Meat," by Dr. Vincent E. Gardner, April issue. If after adopting a vegetarian diet one occasionally used meat would that defeat the purpose?

The vegetarian diet is composed of cleaner, safer, and fresher food. It will keep the body machinery in fine working condition. It would surely pay to adopt a vegetarian diet even if you knew that sometime you might be placed in a position where you would feel it necessary to eat meat. The reward for correct eating is proportional to our efforts; every meal counts.

The one who plans vegetarian meals should know that she has provided generously of high-quality protein, so that the family will not lack in any way on the meatless meals. If she will supply a quart of milk for each person daily, an egg a day, and a serving of beans, peas, peanuts or other nuts, cottage cheese, or a special meat substitute, such as those advertised in LIFE AND HEALTH and which may be purchased at health-food stores or direct from the companies, no meat will be needed. Meat is a flavorful food, and the new vegetarian may miss the taste it gives to her favorite dishes. Very often the cook is happy when she finds that the soups, gravies, stews, boiled dinner, Spanish rice, and her favorite recipes taste just as if they had meat in them if she adds a tiny bit of one of the meatlike seasoners, such as Savita, Tastex, Sovex, Vegex,

Bakon Yeast, or the vegetable bouillon cubes so generally available. Good vegetarian cooks boast that they can make practically any meat dish with the substitutes and make it satisfying. It is helpful to have a vegetarian cookbook, and one may be obtained from the Southern Publishing Association, Nashville, Tennessee, called *Tasty Table Treats*. The price is 35 cents. Another larger one called *Homemakers' Cookbook and Guide to Nutrition* can be ordered from the Review and Herald Publishing Association, Takoma Park, Washington 12, D.C., at \$7.75 in the cloth and \$9.75 in the deluxe binding.

The following is a suggestive list of main dishes that will substitute for meat at dinner.

1. Green corn
2. Shell beans
3. Green peas
4. Succotash
5. Baked beans with molasses
6. Soybeans, green, with pimento sauce
7. Deviled eggs
8. Cottage cheese balls rolled in minced chives or parsley
9. Spanish omelet
10. Soy cheese
11. Macaroni with olive sauce
12. Vegetable souffle
13. Spaghetti with gluten balls
14. Noodles with sliced Brazil nuts
15. Baked lentils
16. Gluten steaks
17. Nut loaf using walnuts or any nut available
18. Baked Lima beans
19. Oatmealburgers
20. Protose loaf
21. Egg fooyoung
22. Vegetarian chop suey
23. Creole corn
24. Rice and lentil patties
25. Eggs a la goldenrod
26. Scalloped corn
27. Stuffed peppers—nuts, crumbs, etc.
28. Scalloped eggplant
29. Eggplant steaks
30. Poached egg on toast, with cream cheese
31. Spanish rice

Vegetable Bargains for Fall

I am always interested in information about vegetables for my family. What are the best buys at this season?

In the fall in the large metropolitan areas Hubbard squash and carrots by the pound are best buys nutritionally. They offer much more for the price than any other vegetables. Green peas are delicious but usually costly. Those who grow tomatoes will be interested to know that recent tests have shown that tomatoes from vines that have been staked and pruned are much richer in vitamin C (ascorbic acid) than those which have been allowed to grow along the ground. The reason is that the staked tomatoes get more sunshine while ripening. Other foods from the garden have been shown to be superior nutritionally when grown in the open, so that they have a full amount of sunshine, rather than in the shade or partial shade.

Honey

I would like to know more about honey.

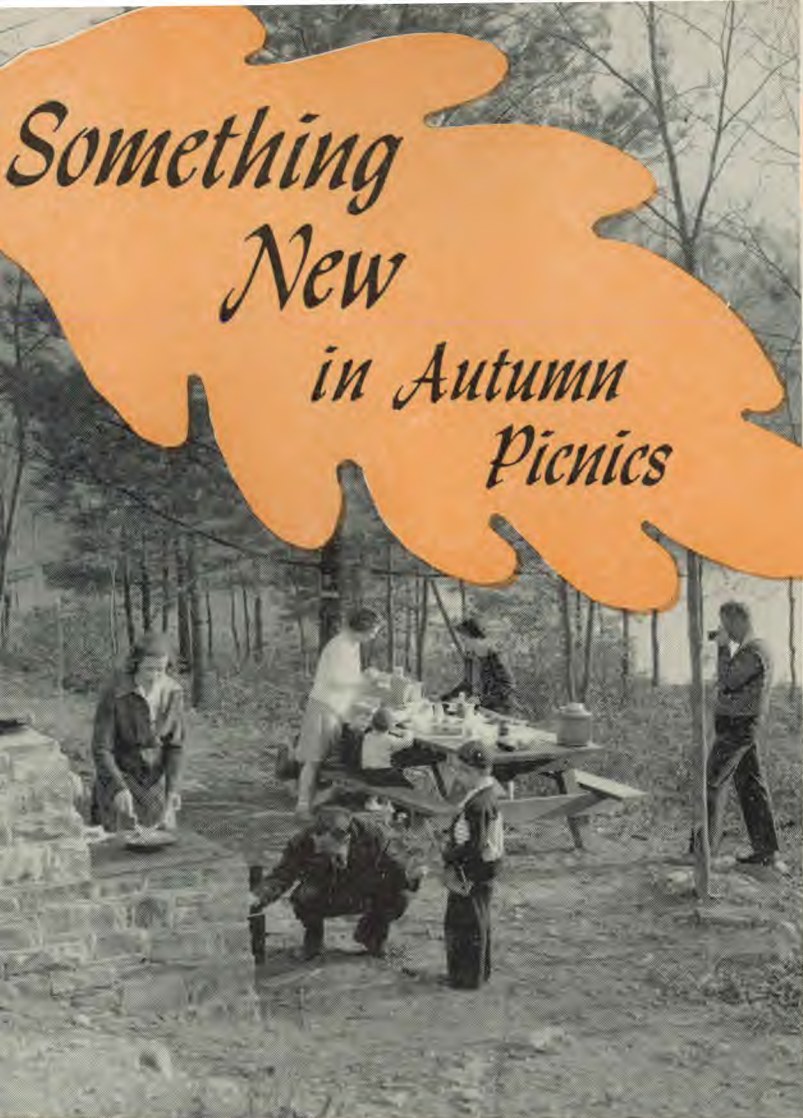
Honey is a sweet, viscid material converted into a usable form in the honey sac of bees, out of the nectar of flowers. The word *nectar* comes from Greek mythology and poetry and means the drink of the gods. Honey is a natural sweet inverted, which means that it is partly digested. Honey has been recognized for ages as a pure and wholesome food. It has as many flavors as the odors of the flowers from which it comes. Honey gathered from clover, basswood, milkweed, raspberry, and the blossoms of orange trees will have the distinctive flavor.

Nearly all honey will granulate in time if kept at lower than 70° F. The fact that it does granulate is proof that it is pure honey. The granulating does not change its food value. It can be restored to the liquid state by being heated gently, as in a double boiler. Overheating will spoil both color and flavor. Comb honey should never be stored in a cellar or refrigerator. Keep in a warm, dry place. For years there has been a high reward offered to anyone who could make comb honey. No one can. It is a product of the bee. Commercial processes for clarifying honey

(Turn to page 31)



Something New in Autumn Picnics



J. C. ALLEN

A Picnic Out of Doors in Autumn's Natural Setting Sharpens the Appetite and Is Conducive to Good Digestion

By **EPPIE CHUNG, B.S., Dietitian**

in an oiled pan and bake in a moderate oven about twenty minutes, or until firm. Remove and brush lightly with oil. If not brown, return to oven or broiler to brown.

Suggestions for serving: in buns with margarine, mayonnaise, tartar sauce, or plain; with minced or sliced onions, pickles, tomato slices, or other favorite sandwich accompaniments or lettuce. Yield: 12 patties.

Creole Sauce

- 2 tablespoons chopped onion
- $\frac{1}{4}$ cup fat
- $\frac{1}{4}$ cup liquid cereal coffee
- $\frac{1}{4}$ cup browned flour
- 2 cups water
- $\frac{1}{4}$ can condensed tomato soup
- $\frac{1}{2}$ cup diced mushrooms
- 2 teaspoons Vegex or Savita
- 1 teaspoon salt

Brown onion in fat; add flour. Dissolve 1 teaspoon cereal coffee in $\frac{1}{4}$ cup boiling water. Add tomato soup and water. Remove pan from fire and stir the liquids gradually into the flour and onions. Boil for a few minutes and add mushrooms and seasoning. This sauce goes well with many vegetable entrees. Yield: 2 to 3 cups.

Tartar Sauce

- 1 cup mayonnaise
- 2 tablespoons tomato juice or puree
- $\frac{1}{2}$ onion, juice of
- 1 hard-boiled egg, diced
- Chopped pimento
- Chopped dill pickle

Combine ingredients immediately before serving. Approximate yield: 1 and $\frac{1}{2}$ cups.

Vegetable Salad Bowls

Tossed vegetable salads may be made with various combinations. Suggestive combinations:

1. Endive, lettuce, watercress, sliced radishes, green onions, olives.
2. Tomato quarters, julienne carrot strips, tiny whole green beans, fresh peas on curly endive.
3. Artichoke hearts, sliced avocado, sliced radishes on bed of lettuce, and water cress.
4. Chopped lettuce and endive with cream-cheese dressing.
5. Endive, lengthwise slices of pared apples, small tomatoes cut in quarters, hard-boiled eggs with whites chopped and yolks run through sieve. Serve with cream French dressing.

French Dressing

- $\frac{1}{2}$ cup lemon juice
- $\frac{1}{4}$ cup salad oil
- 1 teaspoon salt
- 1 teaspoon paprika
- 2 tablespoons sugar or honey

Combine ingredients in the order listed. Shake well before serving. If desired, add $\frac{1}{2}$ teaspoon celery seed and $\frac{1}{4}$ teaspoon onion salt. Any of the following, or mixtures of several, may be chopped and added: parsley, beets, green pepper, pimento, hard-boiled egg, celery, cottage or cream cheese. Approximate yield: 1 and $\frac{1}{2}$ cups of dressing. For cream French dressing, add 3 tablespoons of whipped cream.

"O sun and skies and clouds of June,
And flowers of June together,
Ye cannot rival for one hour
October's bright blue weather."

IT IS the time of the year when Nature holds forth her brilliant fashion show. And though the trees recklessly display their bizarre garbs, they are full of gaiety and warmth. And that blue-domed ceiling is a perfect complement to the fall triumph of beauty. The magnificent green carpet invites you to come and feel its softness and be seated while Nature carries on her proud parade. What is more conducive to good digestion than a pretty setting, and the best of seats, with a minimum of pushing and waiting? All this for me you say? Of course, and so while Nature is featuring her autumn climax, why not draft the family out for a back-yard picnic supper? The brisk autumn weather has sharpened everyone's appetite, so be sure there is enough for seconds.

MENU

Roasting ears
Glutenburger* patties, buns
Creole sauce Raw onions
Tossed vegetable salad French dressing
Doughnuts Hot Postum
Fresh fruits

RECIPES

Roasting Ears

Remove the silk and tough outer shucks, leaving only a few next to the kernels. Put water on to boil, and at boiling drop in ears of corn. Let cook until done. Serve piping hot, with butter.

Glutenburger Patties

- 2 cups Glutenburger
- $\frac{1}{4}$ teaspoon sage
- $\frac{1}{4}$ tablespoon salt
- 2 eggs
- 1 onion, finely chopped
- 1 teaspoon Vegex or Savita
- $2\frac{1}{2}$ tablespoons flour

Fry onion in a small amount of fat, and add the Vegex. Combine all the ingredients. Drop from spoon onto bread crumbs, and coat them sufficiently to transfer by hand to the pan. Place

* Product, Loma Linda Food Co.

Be Wise—
Immunize

PROTECT
YOUR
CHILD



UNITED STATES PUBLIC HEALTH SERVICE

IMMUNIZATION - *Why Do It?*

PART II

R. H. O. SWARTOUT, M. D., Dr. P. H.

IN LAST month's discussion it was pointed out that immunization is a process of increasing the body's resistance to disease. The ideal case is one in which the resistance becomes so strong that the disease in question cannot possibly gain a foothold. It was also pointed out that passive immunization, which has a promptly available value, is a process of borrowing resistance that has been built up in some other body—the usual way being by the injection of blood serum coming from this other body. On the other hand, active immunization—a much slower process but much more lasting—is accomplished by stimulating the body to build up its own resistance; and this is usually accomplished by introducing into it some special preparation of a germ, a virus, or a toxin. These special preparations are frequently called vaccines, and the process of introducing them into the body is called vaccination.

To some people, the value of immunization seems so evident that they cannot understand why anybody should neglect it, much less object to it or refuse it. But there are still many who either refuse immunization for themselves or their children or raise many objections to it, and there are others who accept it with fears, misgivings, or reservations. As on almost every subject, there are extreme views on both sides, and there is a middle ground based firmly on facts and logic. Let us consider some of the facts and use a bit of the logic.

First, any honest person who knows the truth will admit that no immunization procedure is perfect. None of them will give completely dependable protection. But smallpox vaccination comes close to doing so. I have made an extensive study of the records and have had an opportunity to observe epidemics of smallpox and to watch the course of scores of thousands of smallpox vaccinations. I have never seen a case of smallpox in a person properly vaccinated within a period of less than nine years before the time of exposure. To my knowledge a few cases have occurred in people whose vaccinations dated back farther than that, but fully as many have occurred in people who "knew" they had previously had smallpox itself earlier in life. As a protection against smallpox, therefore, vaccination is as effective as having the disease.

"But how about the sore arms?" somebody says. "And don't people get brain fever from vaccination?" objects another. It is true that a little soreness of the arm for a few days is the rule. As to brain fever, or encephalitis, it is sometimes reported; but it is so rare that in the more than three hundred thousand vaccinations done by me or under my supervision not a single case of it occurred. And the younger the person, the less the soreness of the arm and the less the danger of encephalitis. If all people were vaccinated against smallpox in early infancy, and if the vaccinations were repeated every five to seven years thereafter, there would not

be enough arm soreness to be worth mentioning, and there would be no need to think about encephalitis at all.

On the other hand, nearly all unvaccinated persons, young or old, will take smallpox if exposed to an active case of it; and when they do they are sure to feel very ill, to be in considerable danger of dying a painful death, and to be in much greater danger of being disfigured for life if they live. One who knows the truth about both vaccination and smallpox will not hesitate a moment in choosing the former.

Diphtheria immunization is somewhat less efficient than smallpox vaccination, but when an approved toxoid preparation is used in the proper way it will build up fully effective immunity in at least 95 per cent of the children to whom it is given, and it will reduce the severity of the disease in those cases where complete protection is not provided. A mild fever for a few hours and some arm soreness for a day or two may follow an injection of diphtheria toxoid, but permanent ill effects are practically never seen.

Diphtheria immunization is very largely responsible for the fact that both the case rate and the death rate from this disease are now only one twentieth as high as they were thirty years ago. Anybody who has seen little children gasping for breath or choking to death because of the terrible results of infection with diphtheria germs will surely be profoundly grateful that a way has been found to prevent such a large proportion of this distress and to save so many lives. And the rest of us, who may not have seen such sights, ought to be intelligent enough to be grateful too.

Whooping cough vaccine is almost as effective as diphtheria toxoid, and the reactions caused by giving it are similar. If everybody realized the seriousness of this common disease of early life, the value of immunization against it would be better understood than it is. Although the danger of death in the average case of whooping cough is much less than in the average case of diphtheria, cases of it are many times more numerous. It is still true that whooping cough kills more babies between the ages of one month and one year than any other childhood disease.

During recent years an effective tetanus toxoid has been developed. It was very widely used among the armed forces in World War II, and saved many lives. Tetanus, often called lockjaw, is not a common infection in civilian life; but agonizing death is the outcome in a large proportion of all the cases that do develop. It is true that large doses of tetanus antitoxin will sometimes save life even after severe symptoms appear; but it is much simpler, much safer, and very much less expensive to avail oneself of the protection which the toxoid can provide.

There are many other vaccines of proved value. Among them typhoid, paratyphoid, cholera, typhus, Rocky Mountain spotted fever, and yellow fever vaccines deserve special mention. People who live or travel in regions where there is any appreciable danger of contracting any of these diseases should not neglect the protection that the use of the appropriate vaccines affords.

Although immunization is now better understood and more widely practiced in most countries than ever before, there are still many people who think of the procedure in much the same way that a certain parent of my acquaintance did. Forms requesting consent for vaccination had been taken home by the pupils of a certain school, with the idea that all parents wishing their children to be vaccinated would sign the forms and send them back. In looking over the returned forms, I came across one that had the following note written on it: "No, I do not consent. I will never have that poison shot into the pure blood of my child." (Turn to page 27)

HOME TREATMENTS



THE SUN BATH

By Stella C. Peterson, R.N.

Several hundred years before Christ, Hippocrates prescribed sun baths at the temple of Aesculapius in Greece. Both the Greeks and the Romans were in the habit of taking daily sun baths. A solarium was a part of every Roman dwelling house. During the Christian Era and the Middle Ages the revolt against paganism was associated with sun worship.

In recent years sun baths have been used for medical purposes in Switzerland. In 1893 Niels Finsen in Denmark experimented with the ultraviolet, or chemical rays, of sunlight. Since that time the modern use of ultraviolet irradiation has developed.

ARTICLES NECESSARY

1. Sun suit, as halter and shorts, or trunks.
2. Dark glasses, shade hat, towel or sun screen.
3. If sun is extremely hot, use a cold cloth to the head.
4. Timepiece.

PROCEDURE

1. First day expose front of body, arms, and legs, for five minutes; then expose the back for five minutes.
2. Increase exposure five minutes front and back each day until maximum time of one hour on each side has been reached.
3. Exposure is given for full sunshine. If clouds come up, the length of time may be increased except on the first two days. (Ten minutes on a cloudy day followed by fifteen minutes on a hot, sunny day may result in a case of sunburn.)
4. Sun baths should be taken preferably between 10 A.M. and 1 P.M. During these hours there is more ultraviolet available in the direct rays. After noon there is an excessive amount of heat. After 3 P.M. there is much less ultraviolet because of the slanting rays of the sun.

PRECAUTIONS

1. No sun bath should be taken later than a half hour before a meal and not sooner than one hour after a meal.
2. If the skin becomes reddened or tender, drop back two days on the schedule of exposure time.
3. Wear a protection over the head.
4. If the sun is unusually hot, cut down the exposure time one half and repeat in the afternoon.
5. If feeling chilly, discontinue treatment; go indoors, and keep warm.
6. If there is dizziness, nausea, vomiting, loss of appetite, or blistering, discontinue sun baths and see the physician.
7. Do not increase exposure more than one hour. Gradual exposure will eliminate need for sun-tan lotions.
8. Reflection of rays from the water increases the intensity of ultraviolet rays and makes one more susceptible to sunburn at the seashore.

INDICATIONS

1. To fortify the body with vitamin D.
2. To fortify against frequent colds in winter.
3. General increase of body tone and sense of well-being.

FACTS

IF YOU want to live long and happily, keep your weight down. This is not the only recipe for healthful longevity, but it is certainly one of the most important. Constant indulgence in overeating, with resulting accumulations of body fat, not only adds to the discomforts of living but actually shortens life.

Obese persons are generally regarded by the life-insurance companies as poor risks. These astute business organizations have found from long experience that the overweight are more prone to such maladies as high blood pressure, hardening of the arteries, heart troubles, kidney diseases, diabetes, and other ailments, and that these persons succumb more readily to these degenerative diseases of later life than do those who maintain normal weight throughout life. Girth control is health insurance of the first order.

This hazard of overweight is greatest after the age of forty, and increases in direct proportion to the degree of corpulency. A rule that is often quoted, and should be long remembered, is that for every inch your waistline exceeds your chest measurement, you can deduct two years from your normal life expectancy. In other words, your belt line has a most significant influence on your life line.

Men who are 20 per cent overweight, according to the standard weight tables, show a mortality approximately one third higher than the average for all men. If they are 30 per cent overweight, their death rates rise to about one half above the average, and the truly ponderous individual who is 50 per cent overweight has a mortality double the average.

Similar figures apply to women, whose normal weights are somewhat less than those of men.

One of the most characteristic penalties of obesity is diabetes, the malady arising from disturbance of the insulin-producing functions of the pancreas gland. Investigations have shown, in fact, that about 80 per cent of the cases of diabetes occur in persons who are overweight, in those who are 5 per cent or more above the average. Among the obese the death rate from diabetes is eight times as high as it is in persons of normal weight. So, if you want to avoid diabetes, one way to do so is to keep your weight down.

High blood pressure, or hypertension, is much more common in fleshy persons than in those possessing slender physiques. The life-insurance figures, based on persons who have been carefully selected as candidates for insurance, indicate that high blood pressure is two and a half times as prevalent in the overweight; but studies by medical officers of the Army during the recent world war showed that in some 23,000 officers this condition was twelve times as frequent in the overweight.

Even fatal accidents occur more often to overweight persons than to those who are not thus handicapped. This fact may be due to the clumsiness which accompanies excessive flesh, since the slender person is usually more agile and often has quicker mental reactions.

About the only important disease which displays a favorable mortality in the overweight is pulmonary tuberculosis, or consumption. One reason for this fact is because this dangerous malady is more prevalent in the younger age groups in whom a slight degree of overweight is an advantage rather than a disadvantage. Up to the age of thirty a mild padding of fat does no harm and even may have some



INTERNATIONAL

This Doorway Is Fit For These People. How

TABLE I
"IDEAL" WEIGHTS FOR MEN
Ages 25 and over

Height (with shoes)		Weight in Pounds (as ordinarily dressed)		
Feet	Inches	Small Frame	Medium Frame	Large Frame
5	2	116-125	124-133	131-142
5	3	119-128	127-136	133-144
5	4	122-132	130-140	137-149
5	5	126-136	134-144	141-153
5	6	129-139	137-147	145-157
5	7	133-143	141-151	149-162
5	8	136-147	145-156	153-166
5	9	140-151	149-160	157-170
5	10	144-155	153-164	161-175
5	11	148-159	157-168	165-180
6	0	152-164	161-173	169-185
6	1	157-169	166-178	174-190
6	2	163-175	171-184	179-196
6	3	168-180	176-189	184-202

Courtesy Metropolitan Life Insurance Company



and Figures

protective value, but after that age normal weight is always best.

What is normal or ideal weight for any individual depends upon a number of factors, of which body build is probably the most significant. Some persons are naturally large, with big bones; and others are naturally small, with slender frames. The former obviously can safely carry around much more weight than the latter.

The standard weight tables, in which weights are generally given for heights and ages, are simply the averages of many hundreds of thousands of measurements. They are, furthermore, predicated on the theory

that the body is a rod, whereas actually it is a cylinder, having bulk as well as height. Comparison of your actual weight with the figures given for your height and age in these tables is an indication of your status, but a deviation of 10 per cent or so from the figures may not necessarily mean serious overweight or underweight.

In the accompanying tables, prepared by a leading life-insurance company, are shown proposed "ideal" weights for men and women according to body build.

Virtually all cases of overweight are due to one cause and only one—the consumption of too much food, especially the fats and carbohydrates. If more food is taken regularly into the body than can be used up in the customary activities of the human machine, the excess is deposited as fat, sometimes in unduly conspicuous places. Conversely, if less food than is required is eaten, the body draws upon its stores of fat, and weight is reduced.

The exceptions to this rule are few and far between. We all know, of course, of persons who eat ravenously but do not seem to put on weight, and of others who eat like sparrows and yet become obese. In a few instances these condi-

tions are due to glandular disturbances in the body, which must be, and usually can be, treated by a competent physician.

About 99 per cent of all overweight is, however, due to lack of self-control at the table. Indulgence in overconsumption of foods cannot, furthermore, be compensated for by exercise, although exercise adapted to the needs of the individual is always desirable for many reasons. It gives tone to the muscles and to the body, but exercise will not keep weight down to any appreciable extent, particularly in the middle-aged. In order to use up the sixty-five to seventy calories, or units, of food energy in one average slice of bread (without butter), you would have to walk about a mile and a half or perform an hour's ironing. If you take from two hundred to three hundred calories more a day than you actually need, no amount of strenuous exercise will prevent the deposition of body fat in the course of time.

By sensible reducing, preferably under a physician's direction, most persons can bring their weights down to normal. The process is best when gradual, and must always include nourishing foods that provide necessary vitamins, proteins, minerals, and other nutrients.

Prevention of obesity is, however, far more effective than its cure. If a person has been grossly overweight for many years, with consequent strain on the various organs of the body, it is doubtful if mere reducing will materially improve his or her life span. On the other hand, the return to ideal weight is always desirable for those in the early stages of corpulence, even a little of it.

(Turn to page 33)

Difficulty in Accommodating
the Doorway to Health?

TOBEY,
P.H.

TABLE II
"IDEAL" WEIGHTS FOR WOMEN

Height (with shoes)		Weight in Pounds (as ordinarily dressed)		
Feet	Inches	Small Frame	Medium Frame	Large Frame
5	0	105-113	112-120	119-129
5	1	107-115	114-122	121-131
5	2	110-118	117-125	124-135
5	3	113-121	120-128	127-138
5	4	116-125	124-132	131-142
5	5	119-128	127-135	133-145
5	6	123-132	130-140	138-150
5	7	126-136	134-144	142-154
5	8	129-139	137-147	145-158
5	9	133-143	141-151	149-162
5	10	136-147	145-155	152-166
5	11	139-150	148-158	155-169
6	0	141-153	151-163	160-174

Courtesy Metropolitan Life Insurance Company

The Housewife's Corner

Conducted by CAROLINE EELLS KEELER

Homemaking—A Career Packed Full of Adventure, Love, and Work

Please enclose a stamped, addressed envelope when writing to this Department. Address Housewife's Corner, LIFE AND HEALTH, Takoma Park, Washington 12, D.C.

● **October's Lure.** Once again it is October, and blue skies and gorgeous woodland beauty are on display. Once again we breathe deeply of the rich grapy, "appley" fragrance that fairly permeates the countryside. Loads of huge pumpkins and squash rumble down the highways to the cannery. Truckloads of beautiful blue Concord, for which this Keuka Lake country is famous, likewise go to market. And we are deep in the making of grape jams and juice. I do hope that last year you tried the recipe for grape juice on our October page. I tried making juice three different ways, and we all liked the LIFE AND HEALTH recipe the best.

Wild asters and goldenrod, goldfinches perching precariously on Canadian thistles, and the blue, blue of the lake—all are so beautiful. I asked our Swiss neighbors whether Switzerland looks something like this view we get of the lake, with the wooded and vineyarded hills sloping down to the waters. They said it does, only, of course, instead of hills there are mountains there.

● **Avocados.** I wonder whether this summer you became acquainted with the Calavo, a member of the avocado family. In the winter, from November to May, we get the thin-skinned winter variety, known as the Fuerte avocado; but during the summer, Calavos, the thick pebbled-skinned variety, are on the market. I remember one summer we went home (we lived in Washington, D.C. then) to New York State, and took some Calavos for my mother to enjoy. We were eager for her to like them too, but she didn't and it was all because in my haste to serve them I

didn't wait until they were fully ripe. Calavos are at their eating best when they yield to gentle pressure from the cupped palms of the hands. Then you will find a taste that is superb, buttery, nutty. You can spread ripe Calavo easily on crackers. Young children can readily digest this fruit, especially when sieved.

Folks who know tell us that Calavos contain at least 12 per cent fruit oil and oftentimes as much as 25 per cent. They are 93.5 per cent digestible. The Calavo contains no starch, very little sugar, some cellulose, fourteen minerals, and nine vitamins. And is it not wonderful that such a nutritious fruit is so delicious?

To prepare an avocado for eating, just cut it in half lengthwise, separate the halves by a slight twist of the fruit, and lift out the big seed. You do not peel an avocado. If it is ripe, the skin pulls back from the fruit as easily as you slip a glove off your hand. To keep the fruit from darkening, sprinkle with lemon juice.

Avocados are delicious in salads by themselves, or in combination with other fruits, vegetables, or salad dressings; and you can even use them in soups. And believe it or not, they add a most exotic touch to frozen desserts. Avocado sandwiches are delicious too.

These photos and recipes furnished by the California Foods Research Institute will introduce you to the delights of Calavo eating.



Left: Fill center of Calavo with a sharp well-seasoned French dressing and eat it with a spoon.

Center: Fill a Calavo half shell with cottage cheese and add a few potato chip ruffles. It's just right for a luncheon entree.

Right: This Calavo fruit salad is packed with vitamins and minerals. Note the delightful contrasts in flavor and color. See recipe above.

● **Gladiolus.** Now we dig our gladiolus corms, for they are mature, and the leaves have begun to turn brown. We loosen the corms, or bulbs, with a spading fork, and pull them carefully, and put them into piles. The tops are cut as close to the corm as possible, and then burned.

Now comes a month's curing period in which the topped corms are put into mesh bags and kept at a temperature of 70° F. or above. Before storing them for the winter, you should remove the old bulb and roots but save the little bulblets if you wish to have gladioluses another year. If you wish to keep record of the kind you are storing, put cured corms in paper bags and write their names on the bags. These bags must be left open at the top to allow a good circulation of air. You can keep the corms in the root cellar; a temperature of about 40° is good.

Calavo Fruit Plate Salad

(Serves 6)

Calavo quarters
Lemon juice
Salt
Orange slices
Grapefruit sections
Banana slices
Fresh strawberries
Salad greens
Salad dressing

Cut each Calavo into halves lengthwise and remove seed. Cut halves lengthwise through center and remove skin. Sprinkle fruit with lemon juice and salt. Arrange Calavo quarters and other fruits on a garnished salad platter. Serve dressing separately. A lemon-honey dressing, made of well-blended lemon juice and honey, in equal portions, is excellent.



• **New Use for Coconut.** S. H. Carnahan, of Oregon, suggests trying dehydrated coconut, the finely shredded kind, sprinkled on cereal and milk. He says it is also good on applesauce.

• **Oatmeal.** My family is very fond of oatmeal. One morning last spring while trying to think of some new way to serve it, I tried the following. I put thin apple slices in the bottom of a large dripping pan, added sugar, and just a little water. Then I worked butter and a little brown sugar into a big bowl of quick oats, added a very little cream, and put this oat mixture on top of the apples and baked. Just one fault the family found—it wasn't enough.

• **Sauerkraut.** Do you have plenty of cabbage and want to put up some sauerkraut this fall? A five-gallon crock or stone jar is good for the purpose. Remove outer leaves of cabbage, wash, and drain. Cut the firm heads into quarters, remove core, and shred. Five pounds of shredded cabbage can be mixed with three and a half tablespoons salt. Measure carefully. If too salty, proper fermentation is prevented. Pack this salted cabbage firmly in bottom of container. Repeat the shredding and salting process until container is filled to within four or five inches of top. The mixture must be pressed firmly to draw out sufficient juice to cover the cabbage by the time the jar is filled. Cover with several layers of thin white cloth, tucking edges

against side of crock, and press with plate held down by a weight. The liquid in the crock should come to the bottom of the cover placed over it, but should not cover the plate. Now fermentation is ready to start. It will take at least four weeks at 70° F. to accomplish this. Every few days remove scum that forms. When removing it, wash the cover and plate. If you are going to use the kraut in the cold days of winter and fall, it can be left in the crock in a cold room; otherwise it should be canned in jars.

• **Black Kettles.** The kettles often get black when we prepare a hot drink outdoors, but here is a tip someone gave me, and I will pass it on to you. Before setting out to cook something over an open fire, rub soap on the bottom of the utensils, and when the pot is washed the soot comes off easily.

I heard a bird at break of day
Sing from the autumn trees
A song so mystical and calm,
So full of certainties,
No man, I think, could listen long
Except upon his knees;
Yet this was but a simple bird
Alone among dead leaves.
—William Alexander Percy.

• **Curtain Gadget.** Before I forget it I must mention a clever little gadget sent to me by Mrs. Harry Rice, of Cayuga, New York. Cayuga is the second lake east of ours. When I want to describe a gadget, my vocabulary is limited. This is a sort of clip, and yet it isn't a clip. You press the ends of this little smoothly pointed gadget, and it inserts into the end of your curtain rods and your curtains slip on smoothly without being snagged on the sharp edges of the rod.

Now I'm going to share with you a lovely little poem sent me by Hazel Hartwell Simon.

Come Again Soon

Our home is happy when it sees you coming down the way,
Our gate is gladly swinging wide for you on such a day.
Our door mat echoes, "Welcome," and our hearth fires burn with glee,
That's what your coming always makes them do right merrily.

The flowers in our dooryard always wear their brightest hues,
Our house wrens sing their sweetest when they hear the happy news;
Our walls prepare to echo all the laughter you will bring,
The bees make sweeter honey, and there's not a knowing thing

That isn't cutting capers just with joy at seeing you,
And thinking of the jolly things that folks will say and do
All through our house when you are here; there's so much merriment,
One could not doubt that friends like you are truly "heaven sent."



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Add vitamin-richness and sparkling taste to every meal you serve. With an Osterizer, fresh fruits and garden fresh vegetables can be liquefied instantly — to give you nutrient-rich ingredients for delicious health drinks, soups, salads, pies, desserts, salad dressings, and main course dishes. Too, an Osterizer is just the thing for preparing foods for baby and invalid. Send the coupon today for information about this useful and "most-used" kitchen appliance — the Osterizer.



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The Family Physician



ANSWERS QUESTIONS

We do not diagnose or treat disease by mail. Enclose stamped, addressed reply envelope. Replies made only to letters from bona fide subscribers. Address Family Physician, LIFE AND HEALTH, Takoma Park, Washington 12, D.C.

Head Noises

I suffer considerably with head noises, or a pendulumlike swing in the ears. I am allergic to drafts and cold water on my face and head. I am fifty years of age. What do you think causes these noises?

The head noises and dizziness that you experience are probably due to changes in the arteries of the inner ear. You are at an age of life when hardening of the arteries is likely to occur; and as this appears in the delicate mechanism of the internal ear, certain vibrations are interpreted as sound. The balancing mechanism of the body may be interfered with, and thus the sensation of dizziness results.

Commonly, an elevated blood pressure is present. Any treatment that will tend to relax nervous strain and tension and ease blood pressure would be beneficial.

Citrus Juices and Milk and Cream

Is the stomach offended in any way as a result of drinking orange or grapefruit juice and then milk and cream on top of it, or a little while afterward?

The contents of the stomach are normally acid; therefore, when milk and cream are taken as a drink or food, they are quite promptly coagulated, and a curd forms. Thus the digestion of protein in these foods is facilitated. It seems to us that the mixing of citrus juices with milk would have very much the same effect as the natural acid and could not be looked upon as injurious to the stomach.

Spastic Colon

In recent years I have had numerous X-rays of the colon, all of which revealed some narrow places, some exceedingly so. Doctors have said little about the condition or about diet, until recently I was told that I have a spastic colon, especially the descending colon, and should eat a smooth diet. I should like to know whether this condition is chronic and whether the diet should be kept up indefinitely.

A spastic colon often follows a mechanical irrigation, or may be influenced by one's general nervous temperament and tension. A bland diet should be used in such instances; and if artificial aid must be had to make the bowels move, it should be something that is smooth and lubricat-

ing rather than harsh in its effect upon the bowel. We enclose a general outline of foods suitable in colitis conditions. This is not a meal list, but merely is suggestive as to the type of food that should be chosen.

You will find that hot applications over the abdomen for a period of 15 to 20 minutes after each meal will prove beneficial. Suitable heat may be applied by an electric lamp, fomentations, or an electric pad.

Pinworms

I would like some straight information on pinworms, their cause and cure.

Pinworms result from swallowing the ova of the worm. Children get them through using food or water that has been contaminated with dirty hands and fingers, usually. Often a child who has the infestation scratches himself, and from his contaminated fingers continues to reinfect himself.

We would recommend that treatment be carried out under the supervision of a physician. In any program treatment must be very scrupulous to avoid reinfection.

Canker Sores

I have been told that ulcers in the mouth are caused by a stomach condition, and I was wondering what condition causes the ulcers. Is there something lacking in the diet?

The sores in your mouth are probably what are commonly referred to as canker sores. The exact cause of them is not known, although they are generally present when one is in a rundown condition or is poorly nourished, particularly after an acute infection. In fact, some people have them following colds or upper respiratory infections more or less as a routine experience.

It has been suggested that they are due to irritation of nerve endings. There is very little that can be done in the way of active treatment except to apply some disinfectant locally where the membrane is broken, and thus aid in an early healing. Others have suggested that they are due to a lack of vitamins. This appears to be supported in experience by the observation that the lesions frequently disappear following the free use of vitamins, especially vitamin B.

Tipped Uterus

If the uterus is tipped backward, can it be successfully straightened without surgery?

The tipping back of the uterus is a very common condition following childbirth. The ligaments supporting the organ become stretched during pregnancy, and after the birth of the infant they do not come back to their normal tautness, and consequently the uterus lies backward. It often can be supported and held in a better position by wearing a pessary. Postural treatment may assist in promoting a more normal position too. However, surgical measures to support the uterus often are advisable.

Alcoholic Poison

Is there such a thing as alcoholic poison? I never hear of many people who drink having it. What causes it in some who drink and not in others? What are the symptoms, and what is the cure?

Alcohol is a poison and not a food, although it can be burned up in the body, and to this extent appears to save food. Some persons are more susceptible to its effect than others. Some have a great tolerance, so that they can drink as much as a pint or a quart of whisky a day without actually being drunk, but others become drunk on taking only an ounce or two of whisky. Some impure alcohols contain poisons that are rather drastic in their effect. Muscle weakness, sometimes blindness, stomach distress, vomiting, and numbness may be observed.

Bronchitis

I have been confined to my bed for nearly three weeks with an attack of bronchitis, and have done everything that seems possible to stop this continuous coughing. If you will suggest something that will help me overcome this coughing, I will be deeply grateful to you.

Bronchitis accompanied by severe coughing may be due to inflammation of the membranes lining the larger air passages, or it may be due to virus infections which have become recognized increasingly during the past few years.

The application of heat to the chest once or twice a day, either in the form of fo-

mentations or an electric pad or infrared lamp, and the rubbing of the chest with a counterirritant, such as camphorated oil or preparations containing oil of wintergreen, seem to be beneficial treatments in many instances. There should be a free intake of fluid sufficient in amount to be accompanied by a free output. Warm baths may be helpful, but if taken one must guard very carefully against exposure and chilling after the treatment. The inhalation of medicated steam or vapor is soothing. Penicillin, streptomycin, or the sulfa drugs may be useful in individual cases in clearing up an irritating infection.

A "STEADY" Postum drinker



Photography is fun, but it's no fun when nervous, unsteady hands result in blurred pictures.

Here are scientific facts you ought to know about the caffeine in both coffee and tea: Caffeine is a drug! It is a stimulant that acts on the brain and central nervous system. Also, in susceptible persons caffeine tends to produce harmful stomach acidity. For some people, drinking coffee results in indigestion, nervous hypertension, and sleepless nights.*

*See "Caffeine and Peptic Ulcer" by Drs. J. A. Roth, A. C. Ivy, and A. J. Atkinson—A. M. A. Journal.

Doctors agree: never give a child coffee. Serve Postum-with-milk instead. Children just love it!

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A PRODUCT OF GENERAL FOODS



Contains no caffeine—no stimulants of any kind

NOW in glass jar or old familiar package



By Ruth M. White, R.N., B.S.

Conundrums and riddles are always fun. The following are concerned with parts of the body, or health. Put on your thinking cap, and try them. (Answers on page 34.)

What's Your Score?

	NUMBER OF CORRECT ANSWERS
Excellent _____	7-8
Good _____	5-6
Fair _____	3-4
Poor _____	0-2

1. I am one of the many soldiers in your body. I fight for your life and sometimes lose my own in the struggle. You must keep a standing army of my kind ready all the time, and sometimes we call in thousands of new recruits. What am I?
2. I am one of the pieces of your skeleton, and am I funny! Sometimes people break me, and then it is not so funny. I help you carry many burdens. What am I?
3. I am the ore in your body. Because of my presence your red blood cells have their bright color, and are able to carry life-giving oxygen throughout the body. What am I?
4. I am the fingerlike appendage at the beginning of the large intestine. There seems to be little for me to do. Many folks have a mark on their abdomen showing I am gone. My name is often found in the back of books as a title to a supplement. What am I?
5. I am the relative arrangement of one part of your body to another. I have plenty to do with your body mechanics. Upon me depends the health of many organs of the body. I can make you look "on top of the world," or tired and sickly. What am I?
6. I am a prominent part of your body. I have the job of being a modern air conditioner, as well as being an aid to you around skunks and roses. What am I?
7. I am the fourth cause of death in the United States. You never know when I will happen along, and yet I would often pass you by if you didn't so deliberately invite my presence. I am found in the yard and in the field, but I much prefer meeting you on the street or in the house. What am I?
8. I am nothing you can touch, taste, or smell. Solomon must have become acquainted with me because he wrote, "A merry heart doeth good like a medicine." If you follow my principles, you will sleep better, eat well, and be of greater service to your fellow man. What am I?

The Mother's Counselor

Conducted by BELLE WOOD COMSTOCK, M.D.



Questions for this department should be addressed to the Mother's Counselor, LIFE AND HEALTH, Takoma Park, Washington 12, D.C. Always enclose stamped, addressed reply envelope.

What Is the Thymus Gland?

Would you please explain the thymus gland? And what is its purpose?

The thymus is a gland lying back of the breastbone at its base, and extending down over the heart, the right side of the gland being more prominent than the left. It develops from birth to the age of two years, after which it grows smaller and undergoes degenerative changes. In the grownup it is no longer visible without X-ray, that is, if it is normal. In the young child it may be seen without X-ray. If it enlarges, it is supposed to produce certain symptoms. However, a thymus which seems to be enlarged under X-ray study may prove to be a normal gland, the enlargement being only apparent. Many symptoms have been attributed to an enlarged thymus. If sufficiently enlarged, it may cause difficulty in breathing. However, other possible causes of this difficult breathing should be eliminated before the entire blame is placed on this gland. It apparently has some part to play in the development of the child, but its function is not clearly understood.

Wakefulness in an Infant

Being a subscriber to your magazine "Life and Health," and a reader of your page devoted to answering puzzled mothers, I also have come to you for aid. I have a little girl sixteen months old, and since birth she has been a poor sleeper. I put her to bed at eight o'clock at night, but about one she awakens and will not go back to sleep until five or six in the morning. She has a poor appetite and has to be coaxed to eat. What do you suggest that I do?

It is very important, I believe, that this baby of yours learns in a definite way that the nighttime is a time for quiet and sleep. When she gets up in the night she should be very firmly told that she must lie down and the lights *must* be out. If she persists in getting up, then the only thing I know to do is spank her severely and put her back to bed. This may need to be repeated two or three times, and perhaps for two or three nights. There is little question but that she will succumb to such disciplinary treatment. Even if it takes a week, it will be worth the struggle for the sake

of all concerned (and particularly for her sake).

A baby of sixteen months is well able to understand what is expected of her. Her nervous system will suffer very much more from letting conditions go on as they are than it will if right measures are taken. In this way her nervous system is stabilized. She knows she has the best of you, and will continue to take pleasure in so doing unless you get the best of the situation.

A FEW OBSERVATIONS ON DRIVING

By WILLIAM E. SPOFFORD

Know your traffic regulations.
Be courteous at all times.

Double check your car when starting on long trips. Ounces of servicing outweigh tons of procrastination.

Be alert for the unexpected—the cockeyed drunk, the absent-minded, or children playing.

Small things like air valves, nails, glass, cause big accidents—especially at "eighty." Follow the car ahead at a safe distance.

Look keenly for route signs, speed limit signs, warning signs, new traffic lights, one-way streets, and curves.

Be "Captain of the Ship." Don't allow your attention to be diverted by the scenery.

When range of vision, day or night, does not show "clearway," slow down. Take nothing for granted. "Safe Driving," like "good reading," keeps you in the "Best of Company."



Child Refuses Solid Food

I have a problem, and I hope that you may be able to offer a suggestion as to what I should do. My son, aged nine and a half months, refuses to eat solid foods. At times I have been able to get him to eat a slice of bread and butter. What shall I do?

Your son, like many others, has no doubt been on too concentrated a diet. For a time, at least, follow this program: Let his milk be all skim milk. Give him no butter or sugar. Let his meals be about as follows: Breakfast, unsweetened apple-sauce or other fruit, cereal, boiled skim milk. Noon meal, potato baked or boiled with jacket on, beaten fluffy with a little skim milk and moderate amount of salt added; strained vegetable; egg yolk; boiled skim milk. Evening meal, bread crust or hard toast, fruit, boiled skim milk to drink. Gradually put back a little cream into his milk and add such sweet fruits as dates, prune puree, or mashed banana. Give him two to four ounces of orange juice between meals. I think such a program will solve your problem.

Nosebleeds in a Four-Year-Old

I am writing in regard to my little daughter four years old who has nosebleeds. Is her nose sensitive or does she have an ailment? She seems to be in perfect health, but at the least provocation her nose will start to bleed. We are quite concerned about her and will follow your advice.

It is possible that your little girl has a blood vessel with a very thin wall near the lining-membrane surface in her nose. This would, of course, have to be determined by a nose-and-throat specialist, who would examine her carefully. It may be that she is a nervous child, and easily gets a rush of blood to the head. This might cause a nosebleed. This condition can be overcome if the diet is right and her surroundings are happy and free from anxiety. Be sure that she gets plenty of fruits and vegetables, and as nearly as possible keep free fat and sugar out of her food. Do not give her food that is too rich or concentrated in sweets or fat. Give her a teaspoonful of yeast powder two or three times daily at meals. It would be good for her to have a cod-liver oil concentrate as well.



The Care of Trees

TREES constitute the most conspicuous part of any planting, and often almost the total value of the planting depends on the trees. Often the purchase of a lot or the location of a building site is determined by the presence of desirable trees; and once a house has been located near a tree of such outstanding beauty, the owner places a value of hundreds of dollars on such a tree, but he often loses it because he does not know how to care for it properly.

In fact, one does not have to look very far to see trees that are not thrifty and that are in need of care. Their leaves look dull and lifeless, are small in size, and are often shed much earlier than is normal. To bring weak, slowing trees back to a healthy, vigorous condition, usually the most important, or one of the most important things to do is to fertilize them. To do this properly one must consider the season of the year when he desires to fertilize. The best time to do this is as soon as they are dormant, and before the ground freezes—any time during October, November, or early December, depending on the time winter sets in. If the trees are in an inconspicuous location, where it will not look bad, the easiest, cheapest, and the best thing to do is to scatter a good coat of fresh stable manure over the surface of the ground, not only under the tree, but for five or six feet beyond the end of the outermost twigs. Rains will wash the soluble part of this into the soil, and by spring a little work with the hand rake will break up the remaining manure into a fine mulch. This manure must not be put on too early lest it stimulate late fall growth. Its purpose is to saturate the soil with fertilizer that will be ready for the use of the tree when the growth starts in the spring, and also to act as a light mulch all the following summer.

Of course, trees growing on the front lawn should not be fertilized in this way. The best way to handle them is to make an application of a complete plant food that will not show after it is applied, yet will be available to the trees just as soon as they start growth in the spring.

The perforation method of fertilizing is most often used where trees are growing on the lawn. Holes are punched or drilled in a zigzag fashion throughout the area occupied by the roots. It is best to make these holes in rings about eighteen or twenty-four inches apart, and the rings should be about two feet apart. They should begin five or six feet away from the trunk of the tree and continue out for five feet beyond the spread of the branches.

These holes should be about two inches in diameter and eighteen inches deep. Fill these holes with a mixture of a complete plant food and soil. Some people put in four or five inches of pure fertilizer in the bottom of the hole and leave the hole open the rest of the way to the top. If a slowly soluble organic fertilizer is used, there is no necessity of mixing it in the soil before putting it in the hole; but if any of the regular chemical fertilizer is used without mixing it thoroughly with three or four times its bulk in soil, it may injure the roots of the tree and so do more harm than good. Leaving the hole half filled and open the rest of the way to the top is a bad practice, because it encourages evaporation during the hot dry season, and then there is also danger of someone's stepping into one of these holes in such a way as to cause injury.

The total amount of fertilizer to be used in this type of fertilization is determined by the size of the tree and on the season of the year when the fertilizing is done. If it is done in the late fall, as suggested above, it may amount to two or three pounds for each inch in diameter of the trunk of the tree measured four or five feet above the ground. If it is done in the spring or summertime, it is well to use not more than two pounds of fertilizer to each inch of diameter of the trunk.

Making all these holes and filling them properly is quite a job, but it usually does not need to be done again for at least five or six years.

If the tree is growing where the soil is loose, this complete fertilizer may be

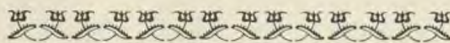
scattered uniformly over the surface and worked into the soil to a depth of three or four inches. It is better to fertilize this way also in the fall than in the spring.

Of course, we may not care to fertilize our trees in the fall, and we may not even realize that they need fertilizing until we see their condition when they put on new leaves in the spring. Fertilizing trees in the early spring by either of the methods suggested is not recommended. Trees suffer more from the lack of nitrogen than from any other plant food deficiency. My own experience confirms the results of a great deal of experimental work done by the government on the fertilizing of trees. Maximum and permanent results are obtained simply by fertilizing the trees in the spring or at any time in the growing season with some good nitrate fertilizer. My preference for this purpose is nitrate of soda, sown over the entire surface of the soil in the same manner that I suggested spreading manure in the fall. I like to do this early in the spring rather than late in the summer, and I do not recommend it at all for use in the fall. But it is the simplest of all methods of fertilizing trees, and always works quite well.

Before sowing, I like to make sure that the nitrate of soda is free from lumps, so that it will spread evenly when sown. I apply one pound of nitrate of soda for the tree, plus another pound for every inch of diameter above three inches. The tree is to be measured as mentioned before, four or five feet from the ground. This fertilizer should be spread either just before a rain or when the ground is wet. The moisture dissolves the nitrate of soda overnight, and it soaks in the ground. Within two or three days one can begin to notice a deepening of the color of the trees. If no rain follows within twenty-four or forty-eight hours after the time this fertilizer is sown, the soil under the tree should be well watered with a lawn sprinkler or with the hose.

Usually one application of this fertilizer is all that is needed, but sometimes I like to make the second application six weeks after the first one is made. However, I never make more than two applications in any one year.

I recognize that none of these methods of fertilizing trees is normal, but neither are the trees nor our lawns growing under normal conditions. In nature, trees shed their leaves; and these leaves not only form a mulch but soon decay, and are worked into the soil by worms and insects of various kinds, so the tree picks up its raw material from great depths in the earth, building it into leaves and new twigs; and these leaves are ultimately formed into the very highest quality of fertilizer. Growing under the unnatural conditions of our lawns and streets, many trees require fertilizer from time to time. The foregoing methods are what I believe to be the most practical way of doing this work.



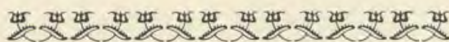
Purple Asters

By INEZ BRASIER

Purple asters by the wall
In my garden growing;
Bright, brave flowers of the fall
Smile, with summer's going.

Soon will come the cooler days
When birds have said good-by;
Indian summer, autumn haze,
Are passing, far winds cry.

Purple asters by the wall
In my garden growing;
Bright, brave flowers of the fall
Smile, with summer's going.



Just for Boys and Girls

Conducted by VEDA SUE MARSH, R.N.



THE BIRD SAFETY-PATROL OFFICERS

THE Little Jays, with Mother and Tommy were enjoying the warmth of some fine Indian summer days in October. Tonight they were sitting out on the patio and having a nice visit as they related the happenings of the day.

"Mother," said Joan, "Miss Woodard has the nicest pets. I do enjoy hearing her tell stories about them. Today she told us some stories about birds and kitty-cats.

"Last summer a friend of Miss Woodard's was going away for a few months, and Miss Woodard asked her if she might care for her mother cat and three kittens while she was away. Her friend readily consented, for Miss Woodard had a lovely yard enclosed by a fence and shrubs. In the yard also was a kitty cage. This cage was built around the trunk of an apricot tree. It was of about two-inch-sized mesh, and was over six feet high, so the top of the cage was up in the branches of the tree. An ivy growing on the top of the cage kept it nicely shaded. This made an ideal place for the cats.

"Miss Woodard's mother had been feeding the birds, and they had become very tame. She would go out every day and spade up worms for them to eat. One, Mr. Bluejay, would be so anxious to get worms that he would sit on the spade while she spaded, and then he would hop down to pick up the worms.

"The cat cage had been empty for several years, so when Mrs. Kitty-puss and her three kittens came there to live, the birds all met and had a very heated discussion about anyone who would dare to bring cats to live in their bird sanctuary.

"Mr. and Mrs. Brownie were delegated to talk to Mrs. Woodard about it. The next time she went out in the yard they came and perched on a near-by branch. Very emphatically Mr. Brownie told her what he thought about such a dreadful thing happening to their home yard.

"After he had talked earnestly for a while he flipped his wing against Mrs. Brownie, and she started talking. She told Mrs. Woodard very plainly that that yard belonged to the birds, and they did not want cat enemies in their yard.

"Mrs. Woodard told Mrs. Brownie that the cats were locked in their cage, and could not get out, so they should not get so excited about it, for the cats really

could not harm them. But the Brownies insisted that that was no place for cats; that they did not trust cats even if they were locked up; and that all the birds felt the same way. Furthermore, they said, they had just built a new home on the roof of the cat cage among the ivy vines. Their babies were still young and could not fly, so it would be impossible to move for some time.

"Again Mrs. Woodard assured them that they had nothing to fear, and that she would keep the door locked.

"But the birds were still worried.

"The next day, as Mrs. Woodard was working in the house, there was a dreadful commotion in the back yard. She finally hastened out to see what could be the trouble. There was a real bird indignation meeting. Mr. and Mrs. Brownie were the center of attention, and there were their neighbors and friends—the bluejays, the mocking birds, the towhees, the house finches, and all the others—declaring they could put up with those old cats no longer. Just see what had happened!

"Sure enough, there was Mrs. Kitty-puss hanging to the top of her cage by three paws, and with the other paw she had stealthily reached up through the ivy vine and tipped the nest. Mr. and Mrs. Brownie had gotten their babies to the ground safely, but they were too tiny to fly or follow them to shelter.

"Mrs. Woodard apologized to them, and reaching up she rescued the nest, and put it on the ground under the bushes at the side of the yard.

"Then the interesting baby trek began. Mrs. Brownie held out a bit of yellow leaf that looked like a nice juicy worm; and each time the baby bird reached for it, she would flutter and back up, coaxing him to try to flutter along. Behind Baby Brownie was his Daddy, flapping his wings as he tried to push the tiny bird along. Gradually, inch by inch, they got the baby safely across the yard and into the nest under the bush.

Watch out when school's out. The National Safety Council reports that among school-age children killed or hurt by automobiles, one out of six was coming from behind a parked car.

"The turmoil quieted down after the moving was completed.

"Mother and Daddy birds have to be safety-patrol officers all the time, because they have so many animal enemies. They need to be especially vigilant during the nesting season. That is why the mother birds are always dressed in somber, dull colors. The dark coloring makes them hard to see as they are sitting on their nests.

"But the daddy birds are brightly colored, and they often sit on a high branch, telling all the world about their wives and babies. Thus they draw the attention of people to them, so no one will see the tiny nest hidden away in another place.

"All boys and girls need to be safety-patrol officers for themselves and others. Our dangerous enemies are cars and trucks.

"We need to be as vigilant and cautious as the birds," said Joan.

Junior Life & Health League

Rules

1. I take two baths each week.
2. I brush my teeth twice daily.
3. I drink milk every day. (Preferably 1 qt. daily.)
4. I wash my hands before eating.
5. I eat daily: vegetables, fruits (fresh, canned, or dried), whole-wheat or enriched bread.
6. I play or work out of doors six days a week when weather permits.
7. I sleep 8 to 10 hours every night.
8. I try to be courteous and cheerful at all times, and do one good deed for someone each day.

Progressive Class Requirements

HABITEE: Observe the rules for two weeks, and continue to keep them.
CONQUEROR: Be a Habitee for six months, and continue to observe the rules.
LEAGUER: Be a Conqueror for six months, and continue to observe the rules. Enlist one new member in the League. Send in one new subscription to LIFE AND HEALTH.
The Habitee, the Conqueror, and the Leaguer receive membership cards, and in addition the Leaguer receives a button.

Pledge

I have read the rules of the Junior Life and Health League, and have been observing them for (two weeks ____), (six months ____), (one year ____). I shall continue to observe them, and will read the Boys and Girls' page each month. Please enroll me as a (Habitee ____), (Conqueror ____), (Leaguer ____) of the Junior Life and Health League.

Name _____

Address _____

Age _____ Grade _____

Directions

Copy the above pledge in your own handwriting, sign your name (very plainly), and give your age, and grade if in school. Then write your address and the name of your father or mother. Mail this to Aunt Sue, LIFE AND HEALTH, Takoma Park, Washington 12, D.C.

Immunization—Why Do It?

(Continued from page 17)

Such an attitude comes from ignorance of one supremely important fact. Nobody, child or adult, can avoid the entrance of "poison" into his "pure blood." We live in a world that is teeming with dangerous (poisonous) germs and viruses. We do not see them, but it is a fact that hardly a day passes without some of them finding their way into our bodies. *No* child's blood remains "pure" very long. We may be fortunate enough to have the "poison" enter in small amounts, so that our general resistance is great enough to overcome it. Or it may be that the entrance of a large amount has been preceded by the repeated entrance of smaller amounts of the same kind, so that our bodies have been stimulated to build up a protective supply of specific antibodies; in other words, that we have had a series of natural and unperceived vaccinations. It is probable that this factor alone goes far toward accounting for the fact that many diseases attack adults so much less easily than they do children.

Vaccination is the introduction of substances into the body in measured amounts

The men who try to do something and fail are infinitely better than those who try to do nothing and succeed.

—Lloyd Jones.

and under controlled conditions, so that immunity can be developed with a minimum of danger to the body. Without vaccination, the same, or even more dangerous, substances may without warning enter the body in much larger and immeasurable amounts at times when resistance is not high enough to overcome the enemy. Call these substances poisons if you will; refusing to be vaccinated will by no means keep them out of your "pure blood."

Those who hesitate to be vaccinated because of the "sore arms" should take a lesson from the experience of soldiers and athletes. Many a sore muscle has resulted from forced marches and strenuous training, but that is a part of the price that must be paid for the vigor and endurance that come later. A sore arm is part of the "training" that our bodies experience in building strength to fight enemy germs and viruses. You would not think that an army officer or an athletic coach who did not put the men under his supervision through a vigorous course of training had much sense, and you would expect untrained soldiers and athletes to go down in defeat. What do you think about the logic of the person who refuses vaccination? And what do you think about his chances of escaping or overcoming the onslaughts of germ and virus diseases?

Hobbies

By GRACE FIELDS

HOBBY MAIL CALL

If you wrote one of those letters that said, "I need a hobby," maybe we have your answer this time. Here's what your fellow hobbyists are doing:

* * *

For instance—looking for a better mulberry. L. K. Ostetter, R.F.D. 3, Lancaster, Pennsylvania, says that's his hobby. He raises mulberries because they're easy to grow and easy to gather, and he's always looking for better ones.

* * *

Helen Hutchins, 2380 Hazel Avenue, Salem, Oregon, collects descriptive literature and maps from different states, Mexico, and Bermuda. She graciously invites anyone wanting such literature from her state to write to the Oregon Highway Commission, Travel Information Department, Salem, Oregon.

* * *

Button! Button! Who's got the button? Mrs. Helmer Johnson, Northfield, Minnesota, reports that she has over 7,000 of them and would like to exchange with other button collectors.

* * *

Seth B. Lewis, 507 Columba Street, Delta, Colorado, is a man of diversified and useful hobbies. Childhood memories (his blacksmith father taught him tempering) and a magazine idea (how to make knives) were combined, and now he makes knives in his odd moments—the moments he's not using to make such items as step ladders, ironing boards, and tee-totters for the lucky children he knows.

* * *

Since 1936, Eloise Thompson, 233 South Ivy Street, Escondido, California, has entertained herself with a diary in which she records her days' doings in various ways. Others of her hobbies are sending cards to shut-ins, growing geraniums and cactus, and embroidering.

* * *

Irma Arndt, 1719 Ford Avenue, North, Glencoe, Minnesota, must have heard about the lady who got forty-four letters after her hobby was mentioned here. Anyway, she wants pen pals (ages 20-24) from every State. She also collects post cards and match-box covers. "Hope I have a lot of mail soon," she says.

* * *

If you have an old, dilapidated hymn book stored in your attic, it may contain just the song Mrs. Ernest Erntser, 4324 E. Street, Sacramento 16, California, is looking for. She collects hymns that are out of date, two of a kind, if possible, so that she can sing or play the organ while her invalid husband plays the violin.

* * *

Scrapbooks rate high with a lot of our readers. Edna Hunt, 657 Carlston Avenue, Oakland, California, has compiled 12 to date. They contain articles of information and interest on people, places, science, grammar, past and present customs, inventions, jokes, poetry, pictures, and some of her own jingles, and articles. She lends these from time to time to bed-ridden people and others who enjoy them. She also makes scrapbooks of pictures cut from greeting cards and magazines for children's hospitals.

"Between scrapbooking, shell pin-making, writing a bit and studying Spanish," she writes, "I am compiling a crossword dictionary, but I'm only in the first stages of it, and long before it is finished I'll likely take a few more trips. . . . Of course I am along in years but am still well, and there is so much of interest in the world sometimes I wish the day was a week long."

(Turn to page 34)

Clippings

From THE MEDICAL PRESS

Human Milk Vs. Cow's Milk

"HUMAN milk is known to be more readily tolerated by infants than cow's milk. Brennemann (1913) and Hill (1923). It appears that the available data substantiates this fact since there is so large a part (84.3 per cent) of the acid-insoluble protein in human milk converted to acid-soluble protein by the end of the digestion period. Other factors that help explain the superior digestibility and adaptability of human milk to the infant are its low total-protein content and its proportionately high acid-soluble protein content before digestion. Both of these factors should aid in preventing the formation of large hard curds that would mechanically irritate the infant's stomach."—A. W. TURNER, "Digestibility of Milk as Affected by Various Types of Treatment," *Food Research*, 1945, vol. 10, no. 1, pp. 52-59.

Medical Aspects of Atomic Explosions

The *American Journal of Roentgenology and Radium Therapy*, which is published for physicians who specialize in X-rays and radium, states editorially in a current issue that several more years must elapse before medical scientists can complete their study of the injurious effects resulting from the explosion of the atomic bombs over Hiroshima and Nagasaki.

Although three years have now elapsed since "massive atomic energies" were suddenly released over the Japanese cities, the journal says that "further observations over a long period of time are necessary before the entire picture can be fully evaluated."

On the basis of studies made so far, says the journal, there is good reason to believe that reproductive disturbances, malignancies of one form or another, shortened life span, and altered genetic pattern will in time appear in greater or lesser degrees.

"The injurious effects resulting from the explosion of an atomic bomb may be placed in two main groups," the editorial says. "The first includes the immediate injuries which may range from sudden death in one zone, to severe reaction in another, and no noticeable effect in a third. The second group contains the late changes and especially the more or less permanent sequelae which have resulted over a period of years. Eventually, a third

group may be added, including the genetic (reproduction) changes, but it may be one or several generations before such changes can be properly evaluated."

DDT*

DDT is a white, odorless powder. It acts both as a contact and stomach poison. Most of the liquid insecticides which you have commonly used to destroy flies, mosquitoes, bugs, and ants serve as space sprays and kill instantly. These older materials usually contain pyrethrum dissolved in a white kerosene or gasoline. During the war this type of insecticides contained so little of the effective agent, pyrethrum, that you practically had to drown the insect to destroy it. Insecticides containing both DDT and pyrethrum in proper proportion make a good space spray, but the true value of DDT is best obtained when it is used as a residual spray. It will last for a long period of time and will kill insects that walk over or rest on the deposit of the hardly visible crystals of DDT which remain on surfaces after the liquid evaporates.

In operation DDT is similar to a good roach powder, but in addition it kills a larger variety of insects; it lasts for a long period; and it can be applied to any surface, from a screened door to a cow.

DDT is available in several forms, in 5 per cent-10 per cent oil solutions such as white kerosene, in 10 per cent dry mixtures for dusting, as wettable powders which can be diluted with water, as concentrates of 20 per cent-40 per cent strength in a solvent which can be diluted with water to make a milky solution, and in water-soluble paints.

It is important to remember in the use of DDT that the aim is to coat walls, shelving, doors, and other resting places of insects. To do this the liquid must be brushed on or applied as a coarse wet spray to the surface. The average-sized room will require about 2½ quarts of 5 per cent DDT at a cost of about \$1 per gallon when purchased as 25 per cent concentrate. The present local market price for one gallon of 25 per cent DDT is about \$5; one gallon of this material should be mixed with 4 gallons of water to make a 5 per cent household emulsion spray.

To avoid spotting of floor, furniture, windows, and dark baseboards, it is best to cover them with newspapers. If spotting does occur, liberal use of furniture polish

will usually remove the stains. DDT sprays should be applied to clean and dusted surfaces. If a good product is used, most wallpapers will not stain; but to be sure, it is advisable to treat a small test area, allow it to dry and see the result, before general use.

DDT is not a serious poison to man; certainly many roach powders and garden insecticides are more toxic but less feared. Precautions to take are: cover food before spraying; do not allow the oil solution of DDT on skin or coats of animals (use DDT in dust form for animal pests); open windows during spraying to dilute the solvent vapors; remember oil sprays are inflammable.

Residual spray of 5 per cent DDT applied by brush, sprayer, or a felt roller applicator on surfaces such as walls, ceilings, clothes closets, shelves which normally attract insects will control houseflies, mosquitoes, bedbugs, silver fish, ants, sandflies, clothes' moths, and carpet beetles.

A 10 per cent DDT powder can be used to eliminate cockroaches, fleas, lice, and the brown dog tick. Infested animals can be treated with the dusting powder. Cats should not be treated with DDT dusts because in licking their bodies they may swallow enough of the powder to make them sick.

When wisely used, DDT is an effective weapon not only in combating annoying insects but also in destroying disease-carrying insects such as malaria mosquitoes, typhus rat fleas, typhus human body lice, and germ-carrying flies.

* Delivered by Mr. Morris A. Nussbaum, industrial chemist, Mississippi State Board of Health, over Radio Station WJDX.

Some Opinions About Spinach

DR. THURMAN B. RICE, in an article appearing in the *Monthly Bulletin*, Indiana State Board of Health, has this among other things to say about spinach and calcium:

"Babies and young children need a diet rich in lime, because they are growing bones and teeth at a rapid rate. Lime is a mineral inclined to be short in our diet, and for that reason we urge that children drink milk, which is our best source of it. Fruits and vegetables are also rich in lime. Spinach contains a large amount of lime, too. But there is a very good reason why the child cannot absorb this lime. There is even a good reason why the child has lime taken out of his body by the spinach. This is a statement which needs a bit of explaining, and it is necessary to get a bit technical in that explanation.

"Spinach contains a relatively large amount of oxalic acid, both in free form and in combination with lime and other minerals. Oxalic acid has a sharp affinity for lime and combines with it as a very firm chemical combination. Such being the case, the lime in the spinach is not available for assimilation and use in the body but

passes out without being utilized. The unsaturated oxalic acid that is also present in spinach tends strongly to combine with any available calcium in the contents of the bowel, or even with the calcium of the blood—to the extent that it passes by the process of osmosis into the bowel—and in this way actually takes out of the body some of the calcium which it has already absorbed or might absorb from the food. In such case *spinach not only fails to give lime but actually takes it away*. In such case *it should not be given to a child*. Adults who have learned to eat it will not be injured because the amount of spinach used is not large, and there is an abundant surplus in the healthy adult body.

"One wonders how the spinach-eating fad got such a hold upon the people. It has been commercialized of course, but apparently it got its start from noncommercial sources. One wonders why so many cooks, nutritionists, pediatricians, housewives, and the general public fell for it. The top flight experts in nutrition are now willing to admit that they were wrong. Greens are an excellent form of food for certain nutritive purposes it is true, but we should avoid the family known as *Chenopodiaceae* (Goosefoot family). This includes spinach, New Zealand spinach, chard, French chard, lamb's quarter, goosefoot. Certain other foods not belonging to that family might well also be avoided—rhubarb, sorrel dock, wood sorrel, *et al*—for the same reason. Far better greens are those from the mustard family—mustard, water cress, turnip and radish greens, lettuce, cabbage, cauliflower, celery, Brussels sprouts. Others that are useful are asparagus, the young canes of raspberry and blackberry, young shoots of poke (the roots and the older stems are poisonous), dandelion, *et al*.

"We would like to quote Sherman (*Chemistry of Food and Nutrition*, 1941; pp. 272, 273).

"It was found that the calcium of milk was well utilized, that of kale almost as well, while the calcium of spinach was utilized to only a very slight extent, if at all (Fincke and Sherman, 1935).

"From this and other similar investigations (Fincke and Garrison; Kao, Conner, and Sherman; Kung, Yeh and Adolph; Mallon, Johnson, and Darby; Speirs; Tisdall and Drake), it now appears clearly that the calcium of celery, cabbage, Chinese cabbage, collards, kale, leeks, lettuce, rutabaga leaves, tendergreen, and turnip greens is well utilized in nutrition; while that of spinach and New Zealand spinach is almost if not entirely useless, probably because of the oxalic acid contained in these (and doubtless other leaves of plants of the Goosefoot family) (*Chenopodiaceae*)."

It begins to look as though spinach will finally be put in its proper place. At least, we can be safe in thinking we are not losing a thing if we let mustard greens have pre-eminence. What a saving in time and nervous energy in not having to force Johnny to eat his spinach!

Nutritive Values of Cereals and Vegetables

OATMEAL and rolled oats, once considered by some to be fit only for animals, now outrank all other breakfast food cereals in nutritional value, according to a report on foods of plant origin by Leonard A. Maynard, Ph.D., and Walter L. Nelson, Ph.D., of Ithaca, N.Y.

Doctors Maynard and Nelson, reporting in *The Journal of the American Medical Association*, give as the reason for oatmeal's high place on the nutritive scale the fact that in the milling of the cereal, "only the fibrous hull and the adhering portions are removed," leaving the germ and other vitamin- and mineral-rich parts for use as human food.

In addition to their other virtues, the article states that oatmeal and rolled oats also rank above wheat products both in fuel value and in protein content. Oat products are also rich sources of iron, and, when properly cooked, are highly digestible. Approximately 529,000,000 pounds, more than any other breakfast food cereal, are consumed yearly by the American people.

Discussing the overall picture of plant food consumption in the United States, the authors say that over 50 per cent of our diet consists of foods of plant origin. In addition, the article states, "plant products make a contribution to the human diet through their influence on the nutritive value of animal products."

Cereals, used in the authors' study to include "the cereal grains and their products, including flour, bread, breakfast foods, crackers, cookies, pastry and macaroni," provide a third or more of the protein of the American diet and, according to an editorial quoted from *The Journal of the American Medical Association*, "are the backbone of the nutrition of most of the races of the earth."

"Wheat," the article states, "is by far the leading cereal in the diet in the United States, furnishing approximately 25 per cent of the total calories consumed."

The new and enriched flour, now used in the making of the majority of bread consumed in this country, is said by the authors to be of "outstanding superiority" to ordinary white flour. This, according to their report, is because the enriched flour contains six times as much thiamin, also known as vitamin B₁.

Canned corn, the report states, is "equal to corn meal in energy and protein on an equivalent moisture basis, and is superior to the milled product in mineral and thiamin content."

Enrichment standards for corn meal and grits have been set up by the Food and Drug Administration in line with the flour enrichment program. These standards are designed to maintain certain thiamin, riboflavin, nicotinic acid, and iron requirements for corn meal and grits.

Dry legumes, such as beans, peas and lentils, are, according to the article, twice as rich in protein as are the cereals. Dried navy and kidney beans, green or dried Lima beans, lentils and cow peas are also rich sources of vitamin B₁. Doctors Maynard and Nelson state, adding that two thirds of a cup of baked beans per day will supply one half of the daily adult iron allowance.

Among the vegetables, the report states that potatoes make up one of the largest parts of the American diet. According to the report, "potatoes are primarily an energy food, consisting largely of starch." They are a significant source of iron and also provide a substantial amount of ascorbic acid, or vitamin C.

Leafy vegetables, such as cabbage, kale, broccoli, lettuce, spinach, etc., are, according to the report, "outstanding sources of certain minerals and vitamins."

Streptomycin in Treatment of Tuberculosis

STREPTOMYCIN, a new bacteria-fighting substance derived from a mold found in the soil, "provides an excellent medium of treatment for certain types of tuberculosis," says the current issue of *Radiology*, but adds that it "should be withheld in cases of minimal tuberculosis and in those in which conventional treatment offers reasonable prospects of good result."

The journal *Radiology*, which is published primarily for physicians who specialize in X-rays, says editorially that streptomycin "should be used in association with accepted therapeutic measures and not as a substitute for them."

"As a matter of fact," the editorial says, "a healthy tendency is at present developing to use the drug only as an adjunct rather than as a definitive treatment in all types of tuberculosis except the miliary and meningitic forms, to apply it briefly for three, four or six weeks, at the most opportune time, with other appropriate therapy."

TEN HEALTH-PRODUCING HABITS

1. A daily tonic bath or skin friction.
2. One-half to one hour of vigorous outdoor exercise.
3. Daily elimination of body wastes.
4. Regularity in time of eating.
5. Eating no food between meals.
6. Washing hands before eating.
7. Eating some fresh fruit, green vegetables and hard foods daily.
8. Six to eight glasses of water between meals.
9. Eight hours of sleep with windows open.
10. A constant trust in Divine power.

"Thou wilt keep him in perfect peace, whose mind is stayed on thee."—Isa. 26:3.



"GOOD HEALTH"

Food Bargains in Bulk on Protective Foods . . .

YEAST for vegetarian protein and vitamins. ALFALFA; BUTTERMILK WHEY for colon hygiene. DRIED MOLASSES

for iron. INSTA'CHURT to make instant sour milk—safeguards digestion. AND many other amazing values and formulæ.

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Brewers' Yeast Powder (No. 200 high potency), lb.	\$ 1.25
Brewers' Yeast Tablets (500 units B-1 in each)	1.25
Meatate, yeast for broth and gravy, 8 oz.	.75
Alfalfa Tablets, rich in alkalizing minerals	.75
Dulse Tablets, iodine-rich sea-lettuce	.75
Kelp Tablets, sea vegetable rich in iodine	.65
Chlorophyll Tablets, rich in iron	1.00
Garlic Capsules, odorless, mint dipped	1.25
Garlic and Parsley Tablets, chocolate coated	.85
Laxative Herb Tablets, 125 for	.75
Rice Polishing Tablets, rich in calcium silicon	.50
Okra Tablets, soothing vegetable mucin	1.00
Tenderized Soybeans, like nuts, lb.	.30
Soy Cracks, like Grapenuts, starch-free protein food for cereal, loaves, roasts, dressings, lb.	.25
Soy Oil, light or dark, rich in lecithin, pt.	.75
Lecithin Paste, phosphorus-rich food, 6 oz.	.75
Vegetable Salt in Shaker, 7 oz.	.40
Vegetable Soup Base powder, delicious	.39
Peanut Flour, 57% protein, lb.	.35
Peanut Oil Beauty Cream, 4 oz.	1.50
Soy Powder for Milk, lb.	.29
Bevasoy, delicious soybean coffee substitute, lb.	.30
Alfalfa Tea, rich in alkalizing minerals, 6 oz.	.39
Health Tea, Claire's Special Blend, like tea	.45
Fenugreek Tea, cuts mucous, 8 oz.	.40
Claire's Jel, vegetarian dessert powder, pkg.	.20
Oster Liquefying Machine, drink your vegetables	39.50
Flex-Seal Pressure Cooker, best, not aluminum, 4 qt.	15.95
Gluten Cutlets or Cutlet-burger, 20 oz.	.49
Black-strap Molasses Powder, rich in iron, 8 oz.	.35
Peppermint Tea, finest leaves grown, pkg.	.75
Sassafras Tea, try this with cream, after meals	.15

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Natural Source of Vitamins B & E, organic minerals, protein, lecithin, amino acids. Vitamins B and E are necessary for Normal Nerves, Heart, Digestion, Energy. 3 lbs. \$1.10 postpaid (West of Mississippi \$1.40) Dealers: Write

Vegetable Products Co., Box 145, Rochester, N.Y.



Prices, Foods, Milk.—According to the National Dairy Council, the cost of all foods has increased 124 per cent since 1939, but fresh milk has increased only 72 per cent. Only four of 46 major foods show a smaller price increase than milk. "Milk contains important substances not completely identified. It is one of those 'wholes' whose significance in good nutrition is greater than that of the mere sum of its known parts."

Vitamins and Methods of Cooking.—Four common household cooking methods were used to study the retention of three vitamins in cabbage strips, spinach leaves, and peas. Also the acceptability of the product was noted. The household cooking methods used were (a) the open saucepan, (b) the tightly covered saucepan, (c) the steamer, and (d) the pressure saucepan. For green cabbage and peas, the pressure saucepan gave the best product; for spinach both the steamer and pressure saucepan were considered satisfactory.

Finicky Appetites Cost.—Finicky appetites are expensive and unnecessary luxuries for any family to afford, say home economists of the United States Department of Agriculture. The problem of planning economical, nutritious meals becomes doubly difficult when one member of the family cannot eat this and another does not like that. Careful planning and wise buying can do much to hold down food expenses, but even these may not outweigh the expense of catering to whims and special tastes. Not only are food prejudices expensive, but they may lead to malnutrition. Anyone who avoids many foods is in danger of not getting all the nutrients needed for health.

What Homemakers Are Interested in.—In a survey made of the homemakers' acceptance of nutrition in an urban community, the major findings are of interest to all, and perhaps indicate the degree of nutritional knowledge in most communities. Only 4 per cent of the homemakers were rated as having adequate information on nutrition. Half had little or no information. About one half the women included foods from all the seven basic food groups in their daily menu. Homemakers showed more interest in information about food and its preparation than in nutrition, and received most of their ideas on food and nutrition from newspapers and magazines. Only one sixth attended classes in nutrition when they had opportunity to do so. Mothers of almost half the children attending school attributed some nutrition information to their children's experience in school. The greatest motivating factor for parent education in nutrition was to give their children the foods that are best for health and growth.

Protein and Anemia.—In 129 studies of blood regeneration in women donors, made at the University of Nebraska, the poorest recoveries occurred in self-chosen diets and unsupplemented controlled diets which furnished only 50 grams of protein daily. The greatest recovery was obtained when donors received a diet that contained 90 grams of protein daily for six weeks after the blood donation. This suggests that diets should furnish at least 90 grams of protein daily when there is need for blood regeneration. In another study a group of anemic girls were given supplements to build up their blood. Some were given iron tablets; others received extra protein foods. The girls who received the iron stored large amounts of it in their bodies, but still were anemic. Those who received extra protein food improved their hemoglobin levels.

Keep Food Costs Down.—The United States Department of Agriculture offers the homemaker this five-point program to help keep food costs at a minimum while optimum good nutrition is maintained.

1. *Feed your family well, nutritionally.* But don't think you have to follow the same meal pattern you followed before. Try new foods. Plan your meals by the basic seven.
2. *Use plentiful foods instead of scarce ones.* Plentifuls are usually lower priced.
3. *Use food alternates wisely.* If you cut down your purchases of some foods, be sure you use equally nutritious replacements.
4. *Serve dishes that extend scarce foods and save money.*
5. *Get your money's worth from the food you buy.* You rob yourself and your family when food goes into the garbage can. Store your food where it keeps best. Guard against insects, save fats, and use leftovers. Don't let them accumulate.

Modern Distribution of HEALTH FOODS

Is Simple and Practical When Understood

Order all these and many other foods from one source. We handle the foods you want. Send for our order blank.

DEALERS WANTED

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VEGETARIAN FOOD CENTER
4230 South 48th Street
LINCOLN, NEBRASKA

Look to the Center of the United States for the Best Foods From Everywhere

Wholesome Meal for a Hungry Family

Breaded Vegemeat Steaks with Tomato Sauce

Here's a hearty satisfying meal the whole family will rave about, rich, juicy, tender Loma Linda Vegemeat Steaks served with tomato sauce, lima beans and baked potato. To prepare Vegemeat Steaks drain a jar of Vegemeat Steaks (save the broth). Dip steaks in diluted egg

batter then in fine bread crumbs or potato flour. Brown gently until golden. Heat small can of tomato sauce, add broth from Vegemeat Steaks. Re-heat and serve over steaks. Get Loma Linda Vegemeat Steaks at your favorite food market or health food store.



Loma Linda Vegemeat Steaks are an all vegetable product rich in protein, vitamins B₁ and G. Also calcium and iron.

Loma Linda Food Company ARLINGTON, CALIF.

QUALITY FOODS SINCE 1906

Vitamin B Excesses.—Although thiamin (vitamin B₁) is needed for growth, vision, and learning ability of children, there is no evidence that amounts above those recommended for good nutrition are of any value in these respects.

The Dietitian Says

(Continued from page 14)

reduce the vitamin content 33 to 50 per cent; therefore comb honey is more nutritious than most liquid honey. Honey supplies seven members of the B complex family. Some ascorbic acid (vitamin C) has been found in honey. Honey has small amounts of iron, copper, sodium, potassium, magnesium, calcium, manganese, and phosphorus. These minerals are all essential to good nutrition. Honey is a good source of easily used carbohydrate, and so is a valuable addition to the diet of those having a weak or tired heart muscle. There are two recipe booklets available from the American Honey Institute, Department 33, Madison 3, Wisconsin. One, *Old Favorite Honey Recipes*, has been revised recently. There are 175 recipes and menus. It is ten cents. *New Favorite Honey Recipes* has 150 recipes. It is spiral bound and sells at 25 cents.

You may also write the American Honey Institute for a set of recipe leaflets, 3" x 5".

Food Saving Starts Before Cooking

MRS. RACHEL FERGUSON, *Chief Nutritionist West Virginia State Department of Health*

WITH the present high price of food at home and the scarcity of food abroad it is very important to handle and cook food to save all the nutritive value possible. The mismanagement of food or the improper cooking of food often results in the family's being poorly nourished.

To get the most out of minerals, vitamins, and flavor from food:

Use fresh vegetables—vitamins disappear as vegetables wilt and wait.

Wash vegetables quickly, never soak, and lift from water to free from sand and grit. Never allow any kind of vegetable to stand in water, if you wish to conserve its vitamins and mineral value.

Snap beans, Lima beans, peas, et cetera should be kept in the pod in a cold place until just before cooking time.

Vegetables which are pared, cut, or chopped, and allowed to stand at room temperature lose vitamin value very rapidly.

Milk is one of our richest sources of riboflavin, a very important vitamin, which is rapidly destroyed by light. As quickly as possible, after delivery, wipe milk bottles well or place under cold running water, dry, and store in the refrigerator. Keep covered.

Eggs have protein of high quality. Treat

a "good egg" right to keep it good. This means clean, covered, cold. Wipe soiled spots from eggs but do not wash them until ready to cook. Store eggs in a covered pan in a cold place.

Cook all vegetables in the smallest amount of water possible; with greens, only the water which sticks to the leaves in washing; with tender roots, only enough water to prevent sticking. If water must be used, be sure that it is boiling before any kind of vegetable is placed in it.

Cook all vegetables and fruits in a pan which has a tight-fitting lid, only until tender.

In the case of dried vegetables or fruits, wash well, soak several hours, and cook in the water in which they have been soaked. Never parboil. Never add soda.

Serve vegetables and fruits in their own juice, but if too much, use right away in soup, gravy, or in a cocktail.

To save food value and enhance flavor, cook root vegetables in the jackets. If peel you must, make the peelings thin or scrape very lightly.

Out of the garden or grocery store, onto the table as quickly as possible with proper handling and cooking. That's the way to save vitamins and minerals for the family.

Good health is a quadruped. It has four legs: food, water, exercise, and fresh air.

—Moore.



Massage feels so-o-o good!

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There's no contentment like having your scalp and neck massaged! That's real comfort, isn't it? So soothing and relaxing! Your barber does it often. He uses an Oster Stim-u-lax. Now you and your family can enjoy the pleasure and health benefits of massage right in your home, with an Oster Stim-u-lax Junior. The experience of thousands of satisfied users proves the superiority of the Stim-u-lax massage delivered by patented suspended motor movement. Don't delay. Begin Stim-u-lax massage in your home now! Write for details.

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N-23

The March of Medicine

(Continued from page 13)

made possible the preparation of drugs in very pure state and the compounding of medicines to a degree impossible a few years ago. The production of penicillin in quantities sufficient for both military and civilian use during the war was indeed a miracle which rivals the production of synthetic rubber and aluminum. The large pharmaceutical houses in this country have set such high standards for themselves that their products are almost perfection itself in the degree of purity and exactness of manufacture. This enables the average American to take his prescription to his local druggist with an assurance unknown until recent years.

The advances in the field of preventive medicine are also very noteworthy. The scourges of smallpox, typhus, typhoid fever, yellow fever, and malaria which afflicted entire countries and continents are now rare, and these diseases at best incidental in the civilized world. We are well on the way to the marked reduction, and we trust ultimate elimination, of the plagues of pneumonia, tuberculosis, syphilis, and other infectious diseases. The increased knowledge in the fields of nutrition has gone far to eliminate or reduce such diseases as beriberi, scurvy, pellagra, and the like. Modern sanitation has in itself reduced the incidence of the bacterial

diarrheas so common a century ago, and modern medical methods have reduced the incidence and morbidity of the common infectious diseases of childhood. All these triumphs are due to the efforts at *pre-venting* disease, efforts infinitely more desirable than those of simply curing it when it has once seized upon the patient. The amount of suffering, grief, and financial loss which have thus been prevented is incalculable.

Last but not least in the great advances in medical science which this past fifty years has witnessed is the development of medical education to a degree where individuals graduated as practitioners of medicine are well trained to cope with the everyday medical problems of their patients. Our grandfathers were at the mercies of men who learned medicine at the hands of practicing tutors who were willing to have a young man around to sweep the office, run errands and the like, and learn what they could of the healing art on the fly. If perchance the would-be doctor had enough money to go to the medical schools of the day, he might fall into the hands of the operators of a diploma mill, who were more interested in the tuition than in medical instruction. The last of these mills has been eliminated

The worry cow might have lived till now;
If she hadn't lost her breath;
But she thought her hay wouldn't last
all day.

So she worried herself to death.

—Selected.

within the memory of most adults. Today the high standards of medical education are set by the leaders in medicine and are supported by the laws of the State. Quackery is punished, and charlatanism is repressed in so far as the gullible public will permit.

And it is not only with the training of the physician that medical science is concerned but also with the training of specialists. Only a few decades ago surgeons were made by associating with a well-known surgeon, or more often by the self-made route. A noted surgeon made the statement that the path of a self-made surgeon of those days was marked by the gravestones of his patients. Today an aspiring surgeon must take a rigorous course of prescribed training under capable surgeons. He gains his early technical training on animals, and only when he is capable of doing careful work is he entrusted with operations on the human subject, and then under the watchful eye of his skillful tutors. By the time he is accredited by the specialty boards he is prepared to do skillful work in diagnosis and treatment. In this effort the medical profession itself is far in advance of the legal requirements, for the law recognizes only "physicians and surgeons" as licensed after completion of the standard course in medicine.

A Pleasant Place

IN WHICH TO GET WELL

Seventeen miles from Chicago's
Union Station, on the Burlington

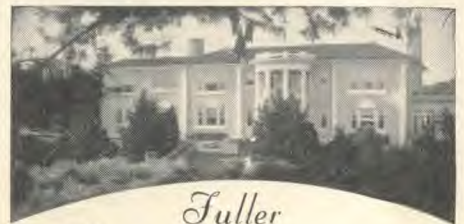
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phere conducive to the rebuilding
of health.

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medical surgical institution, which places emphasis
on nutrition, and physical medicine in helping
you get well.

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THIS modern general hospital maintains therapeutic standards aimed at bringing new strength and vigor to body, mind, and spirit of each medical, surgical, and obstetrical case admitted.

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Throughout the United States, and in many other countries, is found a distinctive chain of medical institutions known as Sanitariums. To the many thousands who have been guests of these unique health institutions, the name Sanitarium describes not merely a hospital, though the best of medical care is given; nor does it describe simply a rest home, though many come primarily for rest. Rather, it denotes a unique combination of both. The word Sanitarium also carries with it the idea of health education and disease prevention, for those who come to these health centers receive instruction in the principles of healthful living.

In addition to the Sanitariums whose announcements appear in this issue, the following belong to this distinctive chain of health institutions.

Boulder-Colorado Sanitarium, Boulder, Colorado
Florida Sanitarium, Orlando, Florida
Forsyth Memorial Sanitarium, 805 N. Gadsden St., Tallahassee, Florida
Georgia Sanitarium, Route 4, Box 240, Atlanta, Ga.
Glendale Sanitarium, Glendale, California
Loma Linda Sanitarium, Loma Linda, California
Madison Rural Sanitarium, Madison College, Tenn.
Mountain Sanitarium, Fletcher, North Carolina
Paradise Valley Sanitarium, National City, California
Pisgah Sanitarium, Box 1331, Asheville, North Carolina
Porter Sanitarium, 2525 S. Downing Street, Denver, Colorado
Portland Sanitarium, 932 S.E. 60th Avenue, Portland, Oregon
Resthaven Sanitarium, Sidney, British Columbia, Canada
Walker Memorial Sanitarium, Avon Park, Florida
Walla Walla Sanitarium, Walla Walla, Washington
White Memorial Hospital, 312 N. Boyle Avenue, Los Angeles, California
Wytheville Hospital, Wytheville, Virginia

The fascinating history of the advance of medicine gives us confidence that the highest degrees of skill are to be applied in the diagnosis and treatment of disease. More than this, it is the assurance that the advancing years will see more and more triumphs in the battle against disease.

Facts and Figures for Overweight

(Continued from page 19)

Overweight is still one of the most common afflictions in this country. Before the recent war it was reliably estimated that about one quarter of our population was overweight. Some improvement may have occurred during the war years as a result of the great industrial activity of the times and the rationing of foods, but today the United States is the one place on earth where you still see too many stout persons. The rest of the world is forced to live on meager rations, which are not conducive to overweight, but to the reverse.

Twenty-five centuries ago the father of medicine, Hippocrates, wrote that "fat men are more likely to die before the slender," an aphorism which holds good today. If all the people of this nation would endeavor to maintain normal or ideal weights, they would not only improve their own health but would bring about a noteworthy extension of the average span of human life in this country.



Located eight miles from Boston, on the shores of beautiful Spot Pond, offers the health seeker

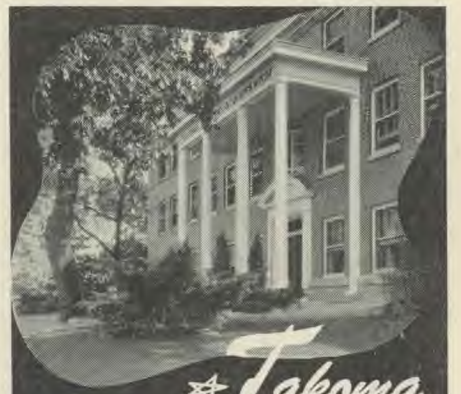
- Quiet surroundings that invite relaxation.
- Scientific facilities for the diagnosis and treatment of disease.
- A supervised program of simple living and approved treatment, featuring diet, hydrotherapy, physiotherapy, rest, directed exercise, fresh air, sunshine, and proven medicaments. Surgical facilities are also available.

Forty-five Years of Health Building

You are invited to write for free descriptive folder A

The New England
SANITARIUM and HOSPITAL
STONEHAM, MASS.
Post Office, Melrose, Mass.

CONTAGIOUS CASES NOT ACCEPTED



Takoma
HOSPITAL and SANITARIUM

"There's Health in the Hills of East Tennessee"

when you need a quiet place to regain nervous energy, here where Nature conspires in beautiful surroundings to help bring it about.

This modern Hospital offers the finest in medical and surgical care plus the new Sanitarium section with its unique features.

Special emphasis is placed on physical therapy, such as hydrotherapy and electrotherapy, and also on proper diet.

Mental and tubercular cases not accepted. Write for free Booklet "A."

Takoma Hospital and Sanitarium

GREENEVILLE, TENN.



Take It Easy

THE other day a friend told me a most interesting experience she had recently. Driving through one of the main streets of a large city, at a very busy corner she made a left turn against the traffic. She had gone about half a block when a motorcycle officer came alongside her car, telling her to move over to the side and stop. Greatly surprised, for she was not aware that she had committed any offense, she was tempted to argue her innocence. Wisely, however, she collected herself, and with true womanly grace, inquired humbly as to the nature of her mistake. Her cooperative attitude, she assured me, had its pronounced effect. The officer of the law was most gentlemanly and took the time to show at some length just the mistakes she had made—failing to signal with her hand, making a too short turn, and, most serious of all, not giving the on-coming cars sufficient right of way before turning. He courteously indicated the danger both to herself and to others in doing these things. When he had finished this needful instruction he said, "Now, madam, because you have taken this in such good spirit, I am going to make this as easy as I can for you. I have not reported on the ticket the most serious offense you committed, so the cost of your fine will be cut down considerably. Needless to say, Mrs. Smith is firmly convinced that the spirit in which one meets the issues of life does greatly help to make the way easier, and it is less expensive.

How profitable it would be for all of us to learn this lesson! We come to many hard places in the road of life, but it does no good to kick against the pricks. Storms, squalls, will strike us as we sail along—they are inescapable—but like a good sea-

worthy ship, we can keep the stormy water on the outside, and not allow it to fill the hull of our spirit with the bitter waters of *Marah*, making us sour, unsocial, resentful. If we are prone to bristle, to fight back, to permit the bitter mixture to get inside, we had better display the good sense of Mrs. Smith, and cast the tree of sweet reasonableness, of friendly cooperation, of cheerful and resigned submission to what we cannot remove, into the disagreeable potion, as did Moses, to make it easier to take.

The truly great men and women are those that always come right side up in the vicissitudes of life. They do not intend that the sordid, the ugly, the defeats, the trials, the perplexities of life, shall keep them down. For them the sun is always shining, though the heavens be black. For them there is ever joy and peace of heart no matter how the difficulties and sorrows of life may pile up around them. They are like Martin Niemoeller, who could feel the persistent wrath of the Nazis, who could endure the concentration camp, waste away through starvation and privation, and yet come out with a triumphant spirit of courage to press on.

They are like the greatest man that ever lived, the Galilean, who could suffer bitter opposition and persecution, and finally cruel death, and yet in His conscious mastery exclaim, "Peace I leave with you, My peace I give unto you: not as the world giveth, give I unto you. Let not your heart be troubled, neither let it be afraid"; and again, "In the world ye have tribulation: but be of good cheer; I have overcome the world."

Caught in the world's busy traffic, we, like Mrs. Smith, may fail at times to put out the hand, make too short a turn, move too quickly against the on-coming stream of events. But in it all we can keep splendidly cool, ever possessed of that equanimity of soul that Dr. Osler talked about, and win, over these unfortunate incidents. This spirit will save us much too in wear and tear and be so good for our nerves. Try it and live satisfiedly.

Hobby Mail Call

(Continued from page 27)

Enterprising Mrs. Harvey Sydow, Lyons, Nebraska, has worked out patterns for making wall plaques from old phonograph records and field and garden seeds, a Dutch wind mill from a chicken waterer, and clever sunbonnet girls and horses for lawn ornaments. She sells these patterns at a nominal fee.

* * *

Joe Wilkinson must be about the best friend the birds of Blackstone, Virginia, have. "My hobby began when one day I was sitting in the woods. I saw a thrush building its nest. Just then an idea struck me and I went home running, and got me a saw, hammer, planks, and some nails. Then I began to build me some homes for the birds. This made the birds come and build nests in the houses. There were sparrows, mocking birds, blue birds, red birds, and brown thrushes. . . . Every year I am busy building houses for the other birds' children."

* * *

. . . How about letting us in on *your* hobby? Drop a line to Hobbies, Life and Health, Washington 12, D.C., and tell us what you're hunting, or building, or collecting.

What A Blessing To Hear Again...



WITH THE NEW TYPE
Beltone
ONE-UNIT HEARING AID

Forget old-style hearing aids. The One-Unit Beltone banishes all their familiar discomforts. No more big, bulky, separate battery packs . . . dangling battery wires. No painful harsh noises, hollow undertones, "static". Learn today how much better, more clearly, happily, you can now *really hear!*

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Please send me, without cost or obligation, the new FREE booklet of interesting facts about DEAFNESS AND HOW TO OVERCOMETT.

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New **ALFA-RICE Tablets**

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ANSWERS TO "ARE YOU HEALTH WISE" ON PAGE 23

1. Leucocyte (white blood cell).
2. Humerus (upper arm bone).
3. Iron.
4. Appendix.
5. Posture.
6. The nose.
7. Accidents.
8. Good mental hygiene.

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Brand New Bran Recipes

Bran Gems

- 2 eggs
- 1 tablespoon of brown sugar (or dark Karo)
- 1 teaspoon of salt
- 1 cup of milk
- 4 tablespoons of oil
- 1½ cups of reinforced white flour
- 1 scant cup of bran

Separate the whites and yolks of the eggs. Beat the yolks, and add the sugar, salt, milk, and oil. Fold into this the beaten whites, and then the flour and bran. Bake the mixture in hot, oiled gem pans one half hour at 400° F.

Bran Rolls

- 1 cup shortening
- 1 cup boiling water
- ¾ cup sugar
- 1 cup bran
- 2 cakes compressed yeast
- 1 cup lukewarm water
- 2 beaten eggs
- 6 cups flour
- 1½ teaspoons salt

Combine shortening, water, sugar, bran, and salt, and stir until shortening is melted. Cool to lukewarm, and add yeast, which has been dissolved in lukewarm water. Add eggs, and mix thoroughly. Turn out on lightly floured board. Knead lightly. Place in oiled dish, and let rise until double in bulk. Shape into rolls, let rise and bake at 375° F. 15 to 20 minutes. Makes two dozen rolls.

Honey Bran Fruit Bar

- ¾ pound of seedless raisins
- ¾ pound of figs
- ¾ pound of dates
- ¾ pound of prunes
- ¾ teaspoon of salt
- 2 ounces candied orange peel
- ¾ cup of honey
- 4 tablespoons of lemon juice
- 1 cup of bran

Grind the fruit in a food chopper, using the coarse grinder. Mix it with the other ingredients. Mold the mixture in a pan, and cut it into cubes.

—Tasty Table Treats.

Bran Cake

- 1 cup lukewarm milk
- 1 cake compressed yeast
- ¾ pound sifted pastry flour (2 cups shaken down well)
- ¾ cup vegetable shortening
- 1 cup brown sugar
- 1 egg
- 1 teaspoon salt
- 2 cups bran (3 ounces)
- ¾ cup raisins
- ¾ cup dried currants
- ½ cup broken nut meats
- 1 teaspoon vanilla flavoring

Dissolve the yeast cake in the warm milk. Stir in the flour and beat well. Set this sponge in a warm place to rise. Wash the raisins and currants, boil them in a little water till plump, and drain. Cream shortening and add sugar, then add the egg and beat till the mixture is stiff. When the sponge is light, beat this mixture into it and stir in the salt and bran. Beat the whole well together, then stir in the raisins, currant and nuts. Pour into an oiled bread tin. Set in a warm place to rise. Let it rise about one-half inch. Bake for about one hour in a slow oven.

This recipe cannot be made successfully with oil as shortening. It requires a hard shortening. There are several vegetable shortenings on the market. Some are made from cottonseed oil; some are coconut fat.

—Lessons in Healthful Cookery.



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