DIET AND HEALTH

By DR. J. T. ALLEN
Food Specialist

Author of "Eating for a Purpose," "The New Gospel of Health," Etc.

THE SIMPLE DIET

To return to nature is not always easy, even when we know what nature would have us do. Habit, it has been said, is second nature, and nowhere is this more true than in eating—the oldest habit. But if improvement is desirable it must be most desirable in eating, which underlies all life processes; and yet change should be made only after careful consideration, and then with all due deliberation.

Beef is digested chiefly in the stomach by the action of the gastric fluid. When reduced to a fine pulp by mastication before entering the stomach it tends to pass out before being properly digested, for the pylorus tends to open when the food is sufficiently reduced by the movement of the stomach and the action of the gastric fluid. Hence many authorities say that meat should be bolted as the dog swallows his meat in large lumps. This is scientifically correct, but the very opposite is true of bread and potatoes.

Flesh digests in from three to five hours; rice remains in the stomach about one hour. When flesh and rice are eaten at the same meal, there is a conflict. The meat and rice are completely mixed by the movement of the stomach. If now the homogeneous mass is retained four hours, the rice undergoes fermentation. If the meat is carried into the intestines within two hours its digestion must be imperfect, failing to receive the proper supply of gastric fluid—an error which cannot be fully corrected by further digestion in the intestines.

Much as this important phase of dietetics has been neglected by the medical profession invalids are never put upon a bi-diet, much less upon a mixture of several foods, however easily digested. Beef is one of the commonest invalid diets, because it is almost pure proteid, digesting easily in the stomach. Rice, 85 per cent. starch, is a common invalid's diet, but meat and rice would not be prescribed to be eaten together.

Proteid foods (meats, eggs, beans, etc.) digest principally in the stomach; carbonaceous foods (fruits, potatoes, cereal foods, etc), principally in the intestine. When these classes of foods are mixed, there is a conflict which must have a disquieting effect upon the nervous system.

It is natural to suppose that a hungry animal under natural conditions would confine itself to one kind of food. Neither man nor the pig is naturally omnivorous. Acorns are the natural food of the pig, which, like man, becomes a prey to an almost infinite variety of diseases when he becomes by force of circumstances omnivorous. A high authority on the diseases of the pig says that they are due to its being fed upon the waste human foods from our tables.

Pavlov, the Russian physiological chemist, has shown that the system adapts itself to the digestion of the food while it is in the mouth, the character of the digestive fluids secreted varying with the food. How bewildered it must be by a ten-course dinner offering perhaps 50 different articles of food!

Considering these facts, we must conclude that serious injury is done to the system by eating a variety of foods at the same meal. Perhaps we may find here the hitherto unaccountable reason for the shortness of human life. And if this be the cause, we must find all the noted cases of longevity among those people whose diet is the simplest. Metchnikoff has found the largest percentage of centenarians among the Hungarian peasants, living largely on black bread. Among the Irish peasantry, living chiefly on potatoes, centenarians are numerous. The noted cases of longevity in England were all among the peasantry, living on a very simple diet. The most noted of centenarians, Cornaro, the Venetian, prolonged life 60 years by restricting his diet to a uniform quantity of eggs and unfermented wine, almost exclusively.

Several monodiet tests recently made under the writer's direction showed, as would naturally be expected, if the principles above stated are true, remarkable results. Edgar Brobst, a foundryman, eating only beans for 60 days, gained eight pounds in weight, working Sundays, two nights and several evenings extra during the period. On a 40 days' diet of oatmeal there was a gain of three pounds and better general conditions of health. Dr. Landone of Los Angeles, Cal., reported a gain in weight living on cactus for ten days. On returning to his former mixed diet Brobst lost four pounds in ten days. (An exclusive diet of beans would be injurious, and in no case is a one-sided diet of beans, peanuts, meat or graham bread advisable.)

Necessarily the infant's food must contain all the elements essential to life and growth; but these are harmoniously combined as are all the elements of nutrition, except fat, in wheat. Yet skimmed milk (from which the animal fat, not easily assimilated, has been extracted) is more easily digested than entire milk. White bread, from which the proteid has been largely removed, digests more easily than entire wheat flour bread, toasted white bread (without butter) being a common diet for invalids; yet cornmeal bread, which is almost pure proteid, is easily digested.

It is admitted that, from the scientific viewpoint, the Chinese are the best fed people in the world. Only their mind-dwarfing system of education has prevented their dominating the world. The Japanese, living largely on a monodiet of rice, with better mental conditions, bid fair to become a ruling race. The Scotch, living largely on oatmeal, have won distinction in science, invention and philosophy for centuries. The world's masterpieces originate never in the banquet hall, but often in the garret, fed by dry crusts.

During the past 12 months I have eaten almost exclusively but one article at a meal—rice, whole-wheat bread, peanuts, bananas, beans, potatoes (baked), apples, and, as a rule, nuts at noon and fruit in the evening—my regular diet—and I have enjoyed perfect health and increased efficiency.

The human system has developed a wonderful power of adaptation to environment, food included. Evolution has produced in man an inhabitant of all climates, capable of subsisting on a great variety of foods. The diet of the average American is not a uniform one, but a continually changing diet. This is true not of the traveler only who may lunch in Chicago and dine in Kalamazoo, but equally of the society woman who may dine at home to-day and to-morrow at the church, and of the business man or woman who eats at a restaurant or hotel. The only system the average person has in eating is that of having no system, comparatively speaking.

If, however, one has long been in the habit of drinking a cup or two of coffee in the morning, for instance, the dropping of that stimulant will cause, for awhile, the same inconvenience that the habitual user of intoxicants finds on discontinuing his daily two or three glasses of beer, wine or whisky, or that the smoker finds for a time after he stops smoking.

I often hear people say they are convinced that coffee, for instance, is injurious, but when they tried to leave off using it, they suffered from nervous headache so much that they were obliged to resume its use to be in fit condition for their work. Persons who have tried to do without meat often conclude that they are the better for eating it, because they do not feel so well when they discontinue it—for a few days.

Eating or drinking any particular food or drink becomes in time a habit, and even though it may be injurious, it is hard to discontinue it. Even the substitution of a better habit is irksome.

Nature's way is to change gradually, as we see in the weaning of the young, as we may see when at times the food of our domestic animals is changed.

Suppose, for instance, that you decide to discontinue the use of coffee, mix with the coffee one-fourth cereal coffee for the first week or two, next one-half, then three-fourths, and finally use pure cereal coffee, which may be continued as a substitute drink or not.

In living on one article of diet, even milk, or wheat, or fruits, which may supply every element of material nutrition needed by the system, there is a craving for something else for a time. It does not necessarily follow that something else is really needed, but only that the habit of eating more than one thing is calling for satisfaction. It is well known that there is a crying demand for food during the first few days of a fast, but that after the fourth day there may be no call for food for 30 days or more.

In adopting a complete new diet, the law of gradual change applies as in dealing with a single article, like coffee. The manner of effecting the change, in detail, should be determined by age, temperament, and other particulars. The longer the habit has been established the more gradual should be the change. A person of nervous temperament should change more slowly than a phelgmatic person of iron will.

Occasionally after one has become established in the better way and being fully convinced that the change has proved beneficial, an overwhelming desire will take possession of one to return, temporarily, to the old way. I believe it is best, in such cases, to yield, for one meal, or even for a day or two. Coffee does not become a deadly poison the day one forswears it. One must be careful, however, lest "the last state become worse than the first."

Our friends, the enemy, are the greatest hindrance to improvement in diet. The fear of being called a "food crank" deters many from making a change which they know would greatly improve their health and success generally, although "food cranks" are now happily becoming so numerous that there is ample company.

A radical change in diet, even for the better, is naturally followed by unpleasant feelings and worse looks, for awhile; and often one does not know how to adapt the new diet until he learns by experience. It is therefore better, as a rule, to be away from home while making a radical change, or while fasting, and, if possible, among people who can give trustworthy advice and encouragement.

It should be borne in mind that the amount and kind of food required by a given individual depend largely upon age, work, temperament and other conditions which should always be considered in determining a diet.

THE PAINTED DESERT AS A PARK

ARIZONA SEEKS ITS PRESERVATION BY NATION.

VIEW NEAR NORTH SIGILLARIA FOREST

TWIN BUTTES NEAR INDIAN WELLS.

If present plans do not miscarry, and if the people of Arizona are permitted to have their way, a little corner of the Painted desert, equal to two townships in area, will soon be declared a national monument, and set aside for preservation forever in its present condition, for the use and enjoyment of the whole people.

There is no more beautifully indefinite term in American geography than "the Painted desert." There are railroad maps that confine the name to a narrow strip of territory along the Little Colorado river; but anyone familiar with the southwest knows that there are at least a half score of other regions of equal or greater extent fully as deserving of the title. George Wharton James defines the Painted desert region as extending from the Rio Grande west to the Calico mountains, the Salton sea, the Mojave desert. Its northern limits are somewhere among the plateaus of southern Utah, while its southern boundary must be sought somewhere down in northern Mexico. It includes the Colorado desert, the Grand canyon, the Mongollon plateau, the Tonto basin, the Verdi, Hassayampa and Salt river valleys, the Petrified forest and the Superstition mountains. Not all of this vast region is desert in character, and only a relatively small portion of its desert expanses deserves to be described as painted.

Yet the conditions of color and bareness that first suggested the name exist in places throughout this whole vast stretch of country. Parts of it are as fertile as any of the world's garden spots. It contains some of the noblest virgin forests in America, including a number of national forests, aggregating many millions of acres in extent. It is crossed by the Continental divide. The lofty peaks of the San Francisco and San Mateo mountains, as well as the lesser heights of the Zuni, Superstition, Mogollon, Pinal and other ranges are within its borders. It is crossed by one of the great rivers of America—the Colorado; and a hundred smaller streams, such as the Little Colorado, the Gila and Virgin rivers, Bill Williams Fork and Havasu, Walnut, Oak, Willow, Diamond and Bluewater creeks drain other portions. Portions of the desert area are mere wastes of natural sand—but other portions are chaotic "bad lands," upon which the Master Painter of the universe has spread a divine harmony of color that shames the wildest flights of the imagination.

Transcontinental travelers never fail to wonder at and admire the standing rocks, red cliffs, black lava, precipices, extinct volcanic craters and tall white walls that lend variety to the view the whole way from Isleta to Gallup. West of the Colorado river, the chocolate-colored mountains and hills that shade from gray to black, and from brown to crimson compel the notice of the least observant. All these are of the Painted desert—but they are no more than tantalizing hints of the greater glories that lie beyond the car window perspective.

Most of those who forsake the Pullmans and ever after boast of a close view of the Painted desert inspect it only as an incident of a trip to the strange towns of the Hopi Indians—a long and wearisome journey of a hundred miles or more from Canyon Diablo, Winslow or Holbrook. The portions one sees on such a trip are not those most worthy of inspection—for the wagon roads follow the lines of least resistance, irrespective of the scenery. Nevertheless, no traveler over either route will ever forget the wide outlook over the gaudy, superheated sands, the fantastic sky lines, the black, grim volcanic craters and basalt cliffs, the orange and carmine "bad lands" of the Painted desert.

Its coloring is as rich as that of the Grand canyon, and more varied. The prospect is limited only by the powers of human vision. The winds and storms and rushing waters of ages have chiseled basalt, clay and sandstone into images, columns, monuments, towers and strange, fantastic forms that have no names. Irrespective of its coloring, it would deserve to rank among the world's wonders. Yet its coloring is the greatest wonder of all. Here may be seen a red wall 500 feet high and 100 miles long. Yonder is a coal black cliff of hardened lava rising from a valley floor of snowy alkali. From any vantage point, one may survey a glowing landscape that shows 100 shades of pink, gray, red, chocolate, carmine, crimson, mauve, brown, yellow and olive. Near Indian Wells is a seemingly interminable line of tall rock sentinels, all garbed in different hues, on guard in this land of enchantment. No wonder the Spanish explorers, when they first beheld it more than 350 years ago, named it "El Pintado Desierto."

Nine miles north of Adamana is Dead River canyon, from the rim of which one obtains a view of the Painted desert that can hardly be matched for scenic interest. The drive requires not more than two hours, over a road that derives more than ordinary interest from the circumstance that it crosses the old Central Overland stage route, the far western extension of the historic Santa Fe trail. Although this has not been traversed for more than a quarter of a century, the deep ruts worn by the wheels of the stage coaches, freighting caravans and prairie schooners of the emigrants, bound for the far-off land of gold in the exciting years that began with '49, are still plainly visible.

Just on the brink of the canyon is an ancient cedar tree, the only one for miles around. Tradition has it that here was the famous rendezvous and camping place of a band of desperadoes and cattle rustlers that terrorized this part of Arizona for many years. Hence the spot is locally famous as the "Robbers' Roost."

To describe even the small portion of the Painted desert visible from Robbers' Roost is as hopeless as to describe an Arizona sunset. As far as the eye can carry is a succession of buttes, terraces and castellated hills that seem to display all the colors of the rainbow. Pervading all is the mystic purple haze of the arid lands that blends chaos itself into a symphony of color more celestial than of this sordid earth. Away off to the northwest is a black, flat-topped mesa, beyond which lies the land of the Hopi Indians. To the north is the land of the Navajos—the American Bedouins. But this is desolation itself, uninhabited even by the hardy tribes that find in the desert a congenial home. At one's feet is the sandy, boulder-strewn bed of a forgotten river whose healing flow ceased ages ago, when this gorgeous land of thirst bore a far different aspect—green with tropic vegetation and melodious with the songs of birds. From the parched desolation rise shimmering heat waves, so that one shrinks from the descent into the canyon as from a fiery furnace.

However, it is not as bad as it looks. A circuitous path leads to the canyon floor, over glittering beds of gypsum and thick deposits of mineral paint. Near the bottom the edge of a vast deposit of silicified wood is reached. This is not the famous Petrified forest of Arizona, which is 15 miles south, but in many respects it is not less wonderful. Officially it is known as the North Sigillaria forest. It is proposed to set aside 72 square miles of it as a national monument, that it may be forever preserved as a public possession.

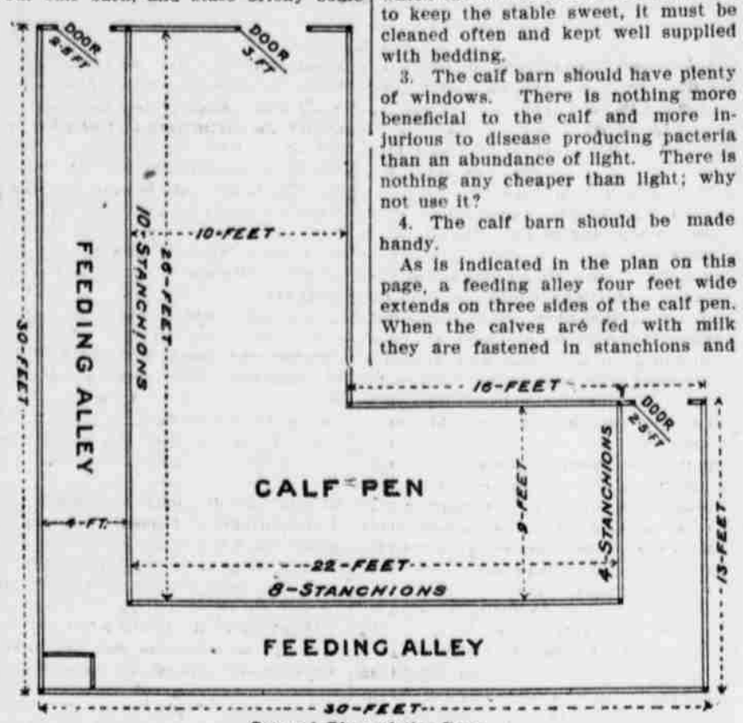
If one's eyes be sharp he may find many strange and curious things mingled with the sand, silex and rock fragments. There are corals and the fossil bones of fishes that disported themselves in ocean depths when this lofty Arizona plateau was far below sea level. There are the fossilized remains of prehistoric birds, animals and reptiles for which science has not yet invented names. On a larger scale are a thousand freaks of erosion—the work of sandstorm and rainstorm, of wind, water, frost, snow, heat and all the irresistible forces of nature. Yonder stands a host of gigantic, silent, stone figures—some of almost angelic beauty, and others diabolic in their grotesqueness—among which Colorado's Garden of the Gods might be lost and passed by unnoticed, so numerous are the greater wonders.

The safest way of not being miserable is not to expect to be happy.

BUILD A CALF BARN AND BUILD IT RIGHT

Some of the Essential Points in Its Construction—By W. D. Hoard.

We have recently received several inquiries asking for the plan of the calf stable on Hoard's Dairyman farm. We herewith present a floor plan of our calf barn, and state briefly some of the essentials to be considered in constructing a place for keeping calves.



Ground Plan of the Barn.

1. A calf should always be kept dry. In order to do this a good floor should be put in the barn and thickly covered with fresh, dry bedding. It is impossible to raise a strong, healthy calf unless it is kept dry and clean.

2. A warm, pure atmosphere is required for growing calves. A warm stable is made by constructing a wall of at least one dead air space. Sheet on the outside of the 2x4's with drop siding, paper on the inside, and cover with matched flooring. Pure air is provided by the King system of ventilation. This will remove the air, which the animals have breathed; but to keep the stable sweet, it must be cleaned often and kept well supplied with bedding.

3. The calf barn should have plenty of windows. There is nothing more beneficial to the calf and more injurious to disease producing pacteria than an abundance of light. There is nothing any cheaper than light; why not use it?

4. The calf barn should be made handy.

As is indicated in the plan on this page, a feeding alley four feet wide extends on three sides of the calf pen. When the calves are fed with milk they are fastened in stanchions and the feeder has no trouble with them. Each one is held in his place. The wide alley makes it easy to give each calf its milk and other feeds.

5. The calf pen should be made so that it can be divided into several apartments. A calf when but two or three weeks old, when turned into a pen with others two or three months old, is more or less handicapped, especially if the younger calf is not strong and rugged. A pen with several divisions permits the grouping of calves according to size and strength.

SELECTION OF BREEDING HOGS

Taken as a whole, there is no marked difference between the early maturing qualities of the Poland China, Duroc Jersey, Chester White or Berkshire breeds of hogs. Neither has it been proven that one has any marked superiority over the other as to the rate at which flesh may be laid on or the cheapness of gains. The characteristics of these breeds are well marked, and there are special points of excellence that one breed may possess to a greater degree than the others; still, considering the factors which determine almost entirely the profit or loss in hog raising, namely, fecundity, rate and cheapness of gains, a more marked difference will be found between individuals of the same breed than between any of the above breeds taken collectively. It is therefore necessary whether breeding pure-bred hogs or grades to consider the individual carefully when selecting breeding animals.

The fecundity of sows always appeals to hog raisers. The size of litters varies with breeds to some extent, but still more with individuals. Statistics compiled by the Indiana experiment station show that the average size of several hundred Poland China, Berkshire and Chester White litters were: Poland China, 6.5 pigs to the litter; Berkshire, seven pigs to the litter, and Chester White, 7.5 pigs to the litter. However, litters of these breeds will vary from three or four to ten or more pigs to the litter. Confinement and overfattening tend to reduce fecundity. Again, sows that are sluggish or overrefined in type are usually indifferent breeders. So far as known the sow controls the size of litters, and since fecundity is largely an individual or family characteristic it is good policy to select brood sows only from litters of which at least seven pigs have been successfully raised.

In selecting breeding hogs, either male or female, the following points should receive consideration: Form, size for age, quality, and feet and legs.

To thoroughly inspect a hog, it is necessary to view it from the side, front and rear, both standing and in motion. From the side the hog should show a rather short head, full jowl and neck, a strong rather arched back without any depression back of the shoulders or at the loin, a deep body of good length and a deep, well rounded ham. From front and rear the side lines of the body should be straight and parallel, and this will be true if the development of shoulder, spring of rib and ham are uniform.

Good quality is indicated by fine hair, medium bone, absence of wrinkles and general coarseness. Hogs coarse in type mature slowly and fatten indifferently. Those possessing harsh hair and skin and showing wrinkles will produce inferior pork.

Breeding hogs should have short, strong legs and strong, upright pasterns.

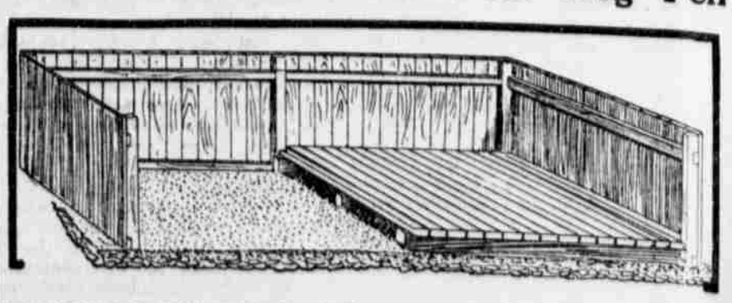
Lack of sufficient bone, as shown by weak, broken down pasterns, is a common defect noticeable in brood sows, especially those that have been fed largely on corn. In fact, feed has much to do with development and strength of bone. A low, weak back indicates weakness, and no young sow showing such a defect should be saved for breeding. These two defects—weak pasterns and backs—may be readily noticed when the pig is moved and often when standing. Other common faults are coarse shoulders open on top, poorly sprung, short ribs and narrow loin.

None but pure bred boars of good form should be used, and only those possessing early maturing qualities. By selecting vigorous, well formed sows of prolific families and pure bred, early maturing boars of good quality, the best combination is secured. This combination of good qualities may be secured in one breed, but more often hog raisers attempt to secure them by selecting sows of one breed and boars of another. There is nothing radically wrong with this plan if market stock is the object, still equally good or better results can be obtained by sticking to one breed and making a careful selection of all breeding stock.

Feed for Eggs.—At noon give some cut-up vegetables, and twice a week give some cut green bone. The grain food at night should be an equal part each of wheat and corn (cracked corn is preferred).

Are They Laying? — The early-hatched pullets should have settled in for steady laying.

Make a Sectional Floor for Hog Pen



A large pen with space for both sleeping and feeding can be arranged with a floor on one half to insure a dry bed. The size of the whole pen is 8 feet by 16 feet, so that the floored section of the pen is 8 feet square. It is made of strong materials, usually 2-inch by 4-inch stuff, and rests on cleats in the bottom of the pen.