DIET AND HEALTH

By DR. J. T. ALLEN
Food Specialist

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

THE RAW FOOD FAD.

There was a time before the discovery of fire, when all food was eaten uncooked. And extreme advocates of naturalism hold that we err seriously in cooking our food to-day. The animals, they say, are perfectly healthy without cooks. There is, they insist, a peculiar vital force in the natural food which cooking destroys. We can not improve upon nature's sun-cooking methods, says the raw food advocate.

It is claimed that raw food cures disease, especially digestive difficulties. Much credible testimony is offered in support of this claim, and at least two physicians in New York announce uncooked food as their principal therapeutic agency.

Can it be true that cooking is a mistake? The logical answer is, in the light of all facts, yes and no.

To the argument that cooking is unnatural, and therefore wrong, the reply is, that all the means of civilization are unnatural, artificial. Soap is unnatural. Electric light is unnatural. Steam heat is unnatural. Houses are unnatural. Only savagery is natural—and even the savage does not live altogether naturally, like the animals.

In the last analysis, the only natural acts are the sub-conscious—those things that we do without premeditation, without knowing why we do them; such as breathing, pulsating, digesting, sleeping. These may be termed the vegetative acts, the fundamental means by which life is maintained—they are, in a word, nutrition, life. A plant performs all of these acts, and others implied. All animals perform them. Man only knows that he performs them. Man is conscious. He has another life, the objective or conscious.

I know that the process of digestion is going on in me now. I know, objectively, consciously, that that process is vegetative. I know that in becoming conscious of it, I am in danger of injuring it. I would not make a child of three as conscious of its processes of digestion as I am; that would certainly be possibly fatal.

Now, man is superior to the lowest animal, to the plant, indeed, only in proportion as he lives more, not merely vegetatively, sub-consciously, for all plants and animals do that, but in proportion as he knows, reasons and wills. The mind, the conscious mind, the knowing power—that is the measure of the man.

The means by which we live the conscious, the objective life, are the means of civilization. The plant, the animal, may enjoy the light of the sun, subjectively, as well as I, but I know—to a degree, for only God knows all—I know what the sun is; and when it sets, I call it back—I turn on the electric light, which is yesterday's sunlight, stored in the plant, turned into coal, which is transmuted into electric energy, and that into light. Electric light is artificial, but it is good. To-day I advised the use of an electric therapeutic lamp, in a case of anemia, with proper feeding to furnish iron, and vibratory treatment. These are all "artificial" means of cure. The electric light is a substitute for sunlight; vibration is artificial exercise, and the scientific (knowing or objective as distinct from subjective or natural)—the scientific choice of food is artificial, but these artificial means are natural—they are the same means in concentrated form that nature uses. Therefore, we may say that the artificial is natural.

I have already shown in articles on bread why cereal starch requires cooking to be digestible. Fruits may also be benefited by cooking in one respect, while injured in others; fruit ferments easily, and a single fermented prune, for instance, will cause the fermentation of an entire meal, seriously interfering with digestion, whereas, if the prunes had been cooked, fermentation would have been arrested. This applies also to meat, especially pork, containing disease germs. Advocates of the uncooked or natural food, have insistently maintained that raw food cures disease, increases happiness and lengthens life. To this they make no qualification, and therefore they have been largely discredited. Nobody would eat raw pork, raw beans or raw potatoes—starch and germs are better boiled.

It is urged by the advocates of the omnivorous diet that the human system has acquired a wonderful power of adaptation, that it has become adapted to the diet we now follow, and that, therefore, a return to the simple diet would be injurious; that the system is adapted to cooked food and that, therefore, uncooked food would be harmful.

It is true that we are temporarily adapted to an irregular diet, not permanently. Experiments made under my direction and by myself show that the system quickly re-adjusts itself to a monodiet, and that, improved health and working capacity result in every case. The same has invariably been the result of living on uncooked food, except cereals or spoiled fruit or meat. Of course sudden changes may work temporary injury and an incomplete ration can never be satisfactory.

The fact that uncooked cereals are indigestible agrees with the theory that nuts are the natural staple diet, for nuts contain little or no starch, but much fat as milk does. Wheat is a substitute for nuts; its starch needs cooking and it lacks fat.

The essential element of food, of all animals, is albumen. Flesh is chiefly albumen. The food of the amoeba, the one-celled animal, which is typical of all animal life, is albumen. Albumen is the warp of the blood from which all tissues are built. The amoeba absorbs its food from the water in which it lives, and that albumen must be in its natural state; if furnished only cooked albumen, it will die. Now, the blood cells are essentially amoeba, and their natural food is natural albumen.

Albumen coagulates at a temperature of 160 degrees, becoming, to use a popular term, leathery and unsuitable for cell food. It is for this reason partly, that a large percentage of albumen is found in the excreta from whole wheat bread, as stated in a preceding article. It is for this reason, partly, that while a raw egg digests in one hour a hard-boiled egg requires three!

Natural albumen is quickly converted in the stomach by the action of pepsin and hydrochloric acid into soluble. This peptone cannot be coagulated by heat, and easily passes through animal membranes; that is, it is easily absorbed in the intestinal canal. But when it is already coagulated by heat before it is conveyed to the stomach, it cannot be converted into a non-coagulable, soluble peptone; it cannot become assimilable cell food. Of course the coagulation by heat is rarely complete, even in roasted foods, but any temperature above 160 is injurious. For instance, a child cannot be properly nourished on boiled milk. The heat that kills the bacteria also kills the nutritive value of the albumen. No one experienced in infant feeding advises boiled milk; some object even to pasteurizing. This, however, requires a much lower temperature

Heat is the most destructive of all agents. It is the means most commonly used in the laboratory to separate the elements of a chemical compound, to decompose or destroy matter. Digestion is a process of chemical change, but when chemical changes are effected in advance by heat, the conditions are changed, and digestive results cannot be the same as if the food were unfired.

Cereals contain an enzyme which digests the starch for the young plant; heat destroys this. While the starch cells of cereals are being broken up by cooking, so as to open them to the action of the digestive fluids, the albumen is being coagulated and the digestive principle in the enzyme destroyed.

I have already indicated in the analysis of bread the importance of the mineral elements of food, the absence of any one of which alone may cause serious illness. The majority of authorities on the chemistry of nutrition agree that mineral food can be conveyed to the cells only by passing from the soil into the plant or the animal and thence to the blood cells, from the food. Now, just as heat decomposes matter in the laboratory, fire decomposes the food in the boiler or oven, precipitating, in many cases, the mineral elements, which are thrown away in the water, or being unassimilable, partly or entirely, are wholly or largely excreted. An uncooked egg, for example, will not tarnish a silver spoon, but the sulphur set free by boiling will form a new compound with the silver. The different odors of cooked foods are, in some cases, due to chemical changes, just as we produce them in the laboratory.

In some cases the chemical and mechanical changes produced by firing make some elements of the food, aside from the albumen, already dealt with, very indigestible. Raw cabbage, for instance, is digestible in an hour, and is very nutritious, but boiled cabbage is extremely indigestible and worthless, except as a relish. Roasted beans produce sulphuretted hydrogen in the intestine. Poisonous compounds may be formed when several foods are mixed.

As the roasting of albumen in meat or peanuts causes an odor and flavor enticing to the abnormal appetite, so many odors driven off from foods by heat entice an unnatural appetite, leading to over-eating and unnatural eating.

Vegetable cells have life, which fire destroys, changing the vital quality of the food. Life is sustained only by life.

The injurious effect of soft-boiled foods on mastication has already been spoken of.

The cooking of food is, if it be unnecessary, a serious economic error. It entails a vast waste of energy and time on the part of the housewife and makes the maintenance of a household a far greater burden on the part of the provider.

As I have said in advising an improvement in the dietary, changes should be made slowly and only after due deliberation, but change should always be made if one is satisfied that change would be beneficial.

"Fireless cooking" is beneficial to the degree that it reduces the amount of heat used in preparing a meal and a "fireless cooker" ought to be as indispensable in every kitchen as is the sewing machine. It also saves time and mental expenditure in watching to avoid excessive boiling.

If one is satisfied that a change would be beneficial, the wise course is, not to remain in the old rut, but to make the change in the best way. Wu Ting Fang, the imperial Chinese ambassador at Washington, evidently thinks so—and does so. He says: "If I had known ten years ago the uncooked food doctrine and the natural life I would not have one gray hair on my head. Joking aside, since I have adopted this natural diet and life, I am not only cured of my former complaints, but I feel stronger, healthier and younger in spirit. I feel 20 years younger and I attribute it all to my reformed diet, together with a reasonable amount of physical exercise."

This great man, recognized as one of the most brilliant statesmen of the day, the cleverest after-dinner speaker at Washington, a most enterprising and progressive man, did not hesitate to quit the Chinaman's national beverage when he realized that it is, like coffee, injurious. His excellency eats no meat and only two meals a day, omitting breakfast. We think we are progressive, but we may be able to take a lesson from the learned and wise Chinaman.

Late Designs

The first costume is a dainty little bodice in silk spotted voile, to match the skirt. The fullness, back and front, is gathered into a band of insertion; an opening is made at the top of the deep armhole, the rucked sleeve coming from underneath it, and being finished at the elbow by a band of insertion. Satin ribbon, the color of spot, forms the waist-band, and is loosely knotted in front with ends left hanging.

Materials required: One and one-half yard voile 42 inches wide, 2 yards insertion, 2½ yards satin ribbon.

For the second, a simple dress, coarse black filet net is employed, and is worn over pale gold soft satin; the skirt fits plainly round the hips, and is trimmed at the foot by a fold of net headed by a band of gold passementerie. Passementerie heads the prettily shaped top of bodice, to which the net is gathered; the short rucked sleeve is finished by passementerie at the elbow. A soft, black satin ribbon is brought round the waist, and loosely tied at the left side.

Materials required: Nine yards net 42 inches wide, 7 yards passementerie, 6 yards satin 42 inches wide for foundation, 3½ yards satin ribbon.

White muslin-de-soie, with a blue and green sprig printed on it, is chosen for the charming design shown in the third picture; the skirt is high-waisted, and trimmed with strips of insertion, the two center strips being taken to the top flounce, the others only half way; the deep flounce is set to the skirt by a heading, and trimmed by two rows of insertion near the foot. Insertion also edges the bodice, and trims the center back and front and the sleeve which is cut in one with the remainder of bodice; several pin tucks are made on the shoulder front and back of bodice, also the sleeve. Emerald green velvet bows are sewn between the insertion down the center of front; the waistband is also of velvet.

Materials required: Twelve yards 27 inches wide, 20 yards insertion, 1 yard velvet.

The next is an evening bodice of fine cashmere and spotted net. Atlantic green is the color of the cashmere with cream net, a wide tuck is made on each shoulder, and three on each sleeve; a fold of black satin is laid on the inside of cashmere, and also edges the top of net, which fills in the center of front; the under-sleeves are also of net finished by a band of insertion.

Materials required: One yard cashmere 48 inches wide, 1¼ yard net 42 inches wide, ½ yard satin 42 inches wide.

Peacock blue Rajah satin is employed for the elegant dress shown last. The overskirt, which is brought up towards the left side, is edged with black satin laid on in Greek key pattern, so also is the foot of the underskirt, and the edge of bodice, where the satin is finely tucked and set to it; folds are arranged on the outer side of sleeve, a black satin sash is taken round the waist, caught up under the buckle at the left side and the ends left hanging; they are edged with handsome fringe.

SCHEME OF PANSY DECORATION.

Charming Novelty for the Next Luncheon You May Give.

A decoration for a luncheon that is seldom seen, yet which may be made very charming, is a low silver bowl filled with pansies in all colors. If the stems are not specially long, a piece of wire netting can be placed over the top of the bowl and the pansies stuck in it.

The effect is enhanced if the bowl is set on a large, round mirror surrounded with a border of small ferns. At each plate have a small pot of growing pansies, which may later be given as souvenirs. These look well if the pots are set in small paper cases made of stiff cardboard covered with silver paper.

Should there be a guest of honor, her plants may be larger than the other, or the case can be a small silver jardiniere.

The candle shades should carry out the predominating tones of the pansies. Silver candlesticks should be used if possible. Effective shades can be made of white paper garlanded with artificial pansies.

Fleur-de-Lis Buttonholes.

When the fashions for ornamental buttonholes began it was argued that they would run the gamut of shape. They are now doing it.

From the straight buttonhole made of satin, velvet and braid we now have all manner of designs up to the fleur-de-lis which is put on dressy frocks whether they are made in blouse or coat suits.

The shape is quite attractive and adds a striking finish to an otherwise plain costume. Care must be taken not to dab many on injudiciously for the tendency to-day is to overtrim.

Use these buttonholes as trimmings. Do not add them to other varieties.

When Using a Night Lamp.

The fumes of coal oil are more or less injurious at any time, and in a sick room are particularly bad for the invalid. If possible a gas or electric light lamp should be substituted, but when this is out of the question it is well to buy a small light and let it burn at full head, rather than turn down a larger wick.

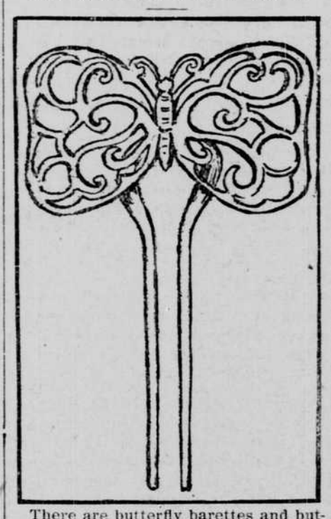
In turning down a lamp the consumption is only partial and the fumes are doubly injurious, besides the danger of unpleasant smoking. Care should be taken that the wick is long enough and is rubbed off to an even edge.

Never set the light where it shines in the patient's eyes or close enough to the bed that it can be knocked off a table by a sudden restless movement of the sick one.

Dark Colors in Vogue.

In all the gowns and in all dresses for morning wear or simple afternoon wear dark colors are those most in vogue, but there are certain bright tints of old rose and saffron that are exceedingly fashionable.

THE NEW BUTTERFLY COMB.



There are butterfly barettes and butterfly combs and silver butterflies, all to be worn in the hair, but only one at a time.

This comb is worn at the top of a Psyche knot or three puffs. The butterfly is of finely wrought gold bands, with the body made of colored stones, and it is mounted on a shell hairpin.

Pillow Covers of Russian Crash.

Russian crash is now used for making very effective and very inexpensive pillow covers. This crash can be embroidered in large conventional designs for the living room, or for the nursery it can be embroidered with nursery rhymes and Mother Goose melodies. These pillow covers are laced together at one end so that they can be removed and washed at frequent intervals.

Green Cloth and Fur.

Many of the modern gowns take the oldest inhabitant back to another generation with a swing. What girl was there 30 years ago who didn't want or own a tight-fitting green broadcloth gown made with an overskirt, tight, long sleeves and the edges of the gown bordered with brown fur.

This precise costume is back in fashion, overskirt, tight sleeves, fur bands and all.

In addition to this is a round toque of brown fur, with a green silk center and a perky feather standing upright at the side. The wearer carries in her hand a granny's muff of brown fur.

Jabot Effects.

Eighteenth century effects are ethereal looking affairs, made from ten-inch wide silk scalloped, closely set triple box-plaited lisse stitched through the center and attached to a wide inner ribbon band which joins at the back beneath a fluffy lisse butterfly bow. Sometimes the ruching is set upon the top edge of an inch and a half wide embroidered band or chiffon lined silver ribbon and closes under a huge, outspreading bow.

IT PAYS TO GRADE UP THE DAIRY HERD

Blood Tells in the Profits of the Dairyman—By Otto F. Hunziker, Dairy Husbandman, Indiana Experiment Station.

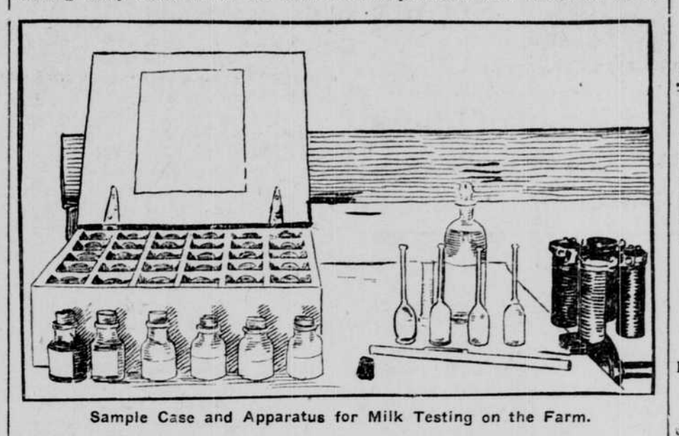
The depressing influence of poor cows upon production and profits has often been pointed out; it remains for us to measure the force of pure dairy blood when persistently applied, in enlarging the profit-making capacity of the herd. It is a reasonable assumption that most men keep cows for profit, though it is a fact that many fail of their object, whether they know it or not. There may be several causes for bad results, namely, inferior animals, inadequate care, or a combination of both. Certainly a cow lacking dairy elements in her make-up can never, under the most favorable conditions, perform well at the pail; and even though she were liberally endowed with them at birth, improper rearing or insufficient care later in life would necessarily preclude satisfactory performance on her part. While it is doubtless true that many cows make poor records through no fault of their own, we are forced to conclude that such cases are somewhat exceptional, and that, after all, most poor records signify inherent inferiority.

In view of a decidedly skeptical attitude on the part of many milk producers toward infusion of pure dairy blood as a source of greater profits, tables Nos. 37 and 38 have been arranged. We desire to show what the blood of pure dairy breeds can do when given an opportunity, not only as it affects gross production, but also its cost. The herds already discussed have been classified on the basis of the presence or absence of persistent or systematic grading either through the use of pure bred dairy sires or the addition to the herd of high grade or pure bred females. Wherever there has been any doubt the herd has been given the benefit of it. In one or two cases, grading other than the purchase of improved cows has been of such short duration that the herd had to be placed in the ungraded lot. The object has been to illustrate the advantages of persistent grading.

There are seven graded and nine ungraded herds. In table No. 37 the average yield of butter fat for graded herds is 280 pounds per cow, while for ungraded it is 216 pounds. This shows a difference of 64 pounds in favor of grading. The question next arising is, was the production by the graded group more or less economically secured than by the ungraded? Reference to table No. 38 will show that, while it costs slightly more to feed the graded cows, they returned nearly twice as much profit as the others. After allowing for differences in cost of food there remains $15.63 per sow in favor of systematic grading. As a further point in this connection table No. 39 shows that the graded herds produced their butter fat at exactly three and one-half cents less per pound than the ungraded herds.

There is a trite saying that: "The bull is half the herd." It is not too much to affirm, however, that if breeding in one line is carefully followed, he may be the whole of it. Enough has been shown from the figures available, to give a glimpse of the wonderful possibilities that pure bred dairy sires offer the milk producer. While in the cases which have just passed under our observation there is a difference of 64 pounds, it simply indicates that, under favorable circumstances, the continued use of pure-bred sires of the same breed can be made to increase the average production of butter fat at least 100 pounds per cow, which is equivalent to raising the earning power of each, $25 to $30 per year.

Even after the merits of pure bred sires have been fully explained and each step proved, some will hesitate to forsake the ways of their ancestors. The "scrub" beef or so called "dual-purpose" bulls are looked upon with too much favor by milk producers. They are a delusion and a snare, and their use cannot lead to profitable results. Grade bulls of an approved breed must not be used even though they "look right." To use them is to breed down rather than up. Dairymen are too much guided by the initial cost of a sire. A bull that is not intrinsically worth more than $25 is of doubtful value as a breeder. While the argument is commonly advanced that producers cannot afford high priced bulls, the truth is, the cheap ones are too expensive at any price.



Sample Case and Apparatus for Milk Testing on the Farm.

TABLE NO. 37.

The Influence of Improved Dairy Blood upon Production.

Average annual butter fat yields in herds where systematic grading has been followed several years.		Average annual butter fat yields in herds where systematic grading has been little practiced or absent altogether.	
No. Herd	Lbs. Butter Fat	No. Herd	Lbs. Butter Fat
7	269.2	2	182.8
8	266.8	5	189.9
16	280.3	6	243.8
17	291.2	11	224.1
18	301.1	20	286.6
18	295.2	23	183.5
19	259.6	23	220.9
		30	264.9
		33	152.8
Av'ge	280		216

Difference per cow in favor of systematic grading 64 pounds.

TABLE NO. 38.

The Influence of Improved Dairy Blood Upon Profits.

Average annual cost of food and profit per cow in herds where systematic grading has been followed several years.			Average annual cost of food and profit per cow in herds where systematic grading has been little practiced or absent altogether		
No. Herd	Cost of Food	Profit	No. Herd	Cost of Food	Profit
7	$34.28	$34.02	2	$31.65	$13.34
8	33.37	36.19	5	40.58	8.13
16	47.11	25.83	6	38.30	22.22
17	36.72	38.27	11	37.40	22.33
18	31.19	48.86	20	33.78	38.93
18	31.57	42.81	23	32.88	14.91
19	42.61	26.33	23	34.41	22.05
			30	41.94	26.66
			33	32.32	8.01
Av'ge	$36.69	$36.04		$35.90	$19.62

Difference in profit $ 16.42
Difference in cost of food 79
In favor of systematic grading $ 15.63

TABLE NO. 39.

Cost of One Pound of Butter Fat.

Group	Cost
Grading	$ .131
Partial or no Grading	.166
Difference	$ .035

Breeding Up Poultry.

Let us all join hands and see what improvement we can make in our farm poultry. If there is anything more fascinating than breeding fine poultry I have never found it. Take your little mongrel hen that don't lay over 80 or 90 eggs in one year and in three years you can, with good management, breed her up to an annual production of 20 0or more, and also increase her size two pounds in weight. Besides, think of the pleasure there is in the work and the knowing that you are doing something worth while.

Did You Know This?

—The body of the pig contains a larger per cent. of water than does the body of a hog and therefore a pound of gain can be made on the pig with less dry matter than is required to make a pound of gain on a hog.

Feed Oil Meal Sparingly.

—Oil meal contains 32 per cent. protein, consequently it is good for milch cows, but should not be fed too liberally.

Sugar Beets for Hogs.

—Sugar beets make a good supplementary feed for swine.

AN IMPROVEMENT.

A new Hallowe'en game, in which a peach is used instead of an apple.

Delicate Scientific Instruments.

The human heat sense can not realize a difference of temperature beyond one-fifth of a degree; but the thermometer, an instrument 200,000 times as sensitive as the skin, notes a difference of a millionth of a degree A galvanometer flexes its finger at a current generated by simply deforming a drop of mercury so as to press it out of a spherical shape into that of an egg.

Where There's a Will—

Helen's mother passed her the cake, and when the little one went to reach across the plate for the largest piece her mother said: "Always take the piece nearest to you, dear."

"Well, then, turn the plate around," was the answer.—Delineator.

Wouldn't Take Him Seriously.

He—But I need you in order to be happy.

She—I couldn't think of marrying a needy person.

A woman no sooner forgives an injury than she proceeds to forget about having forgiven it.

And the pretty girl usually has plain sailing.