WHY? =

USE SUNCOOKED JUICE FOODS DAILY!

FOR || HEALTH STRENGTH HAPPINESS!

By DR. JESSE MERCER GEHMAN, (N.D., M.N.)

Your Family Needs Raw Fruit and Vegetable Juice

FRUIT FOR BLOOD AND HEALTH

"THE JUICES OF FRUITS ARE SO DILUTING AND COOLING TO THE BLOOD, THAT HE WHO REFLECTS CAN SCARCELY HELP THINKING THE GREAT AUTHOR OF NATURE HAD IN VIEW THIS VERY THING, WHEN HE CREATED OR CAUSED THEM TO GROW. IF IN THIS GENERAL ADAPTATION OF FRUIT TO THE WANT OF THE HUMAN SYSTEM, THERE IS NOT PROOF OF DESIGN, I KNOW NOT WHEREIN TO SEEK IT!

LECTURER ON LIFE AND HEALTH OR THE LAWS AND MEANS OF PHYSICAL CULTURE,

WILLIAM A. ALCOTT, M.D. 1853

BRONSON OLCOTT FURTHER PRAISES FRUIT
"FRUIT IS A PREVENTIVE OF DISEASE"
"HOW MUCH BETTER TO EAT FRUIT
THAN CALOMEL, OR RHUBARB, OR QUININE?"

THE APPLE EXTOLLED!

"ONE OR TWO AUTHORS REGARD THE GRAPE AS BEING THE MOST VALUABLE FRUIT AMONG US. I REGARD THE APPLE AS BY FAR THE MOST VALUABLE, IN EVERY COUNTRY WHERE IT CAN BE PROFITABLY RAISED."

"THE JUICE OF THE GRAPE IS EXCEEDINGLY NUTRITIOUS, COOLING AND HEALTHFUL."
"AMERICA DESPERATELY NEEDS LEADERSHIP IN THE FIELD OF NUTRITION. TEACH US WHAT WE NEED TO KNOW ABOUT OUR DIETS. 'STRENGTHEN OUR FOOD THAT IT MAY GIVE THE STRENGTH TO OURSELVES AND OUR CHILDREN', IS THE PRAYER OF THE AMERICAN PEOPLE."

Senator Thomas C. Desmond, (New York)
Member of the Joint Legislative
Committee On Nutrition.
Food and Disease

THE FOOD QUESTION IS INFINITELY THE MOST IMPORTANT PROBLEM OF THE PRESENT DAY, AND IF PROPERLY DEALT WITH MUST RESULT IN THE DISAPPEARANCE OF THE VAST BULK OF DISEASES, MISERY AND DEATH.

Sir Arbuthnot Lane, M.D.
Bart., C.B., M.S., F.R.C.S., Etc.

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VIS MEDICATRIX NATURAE

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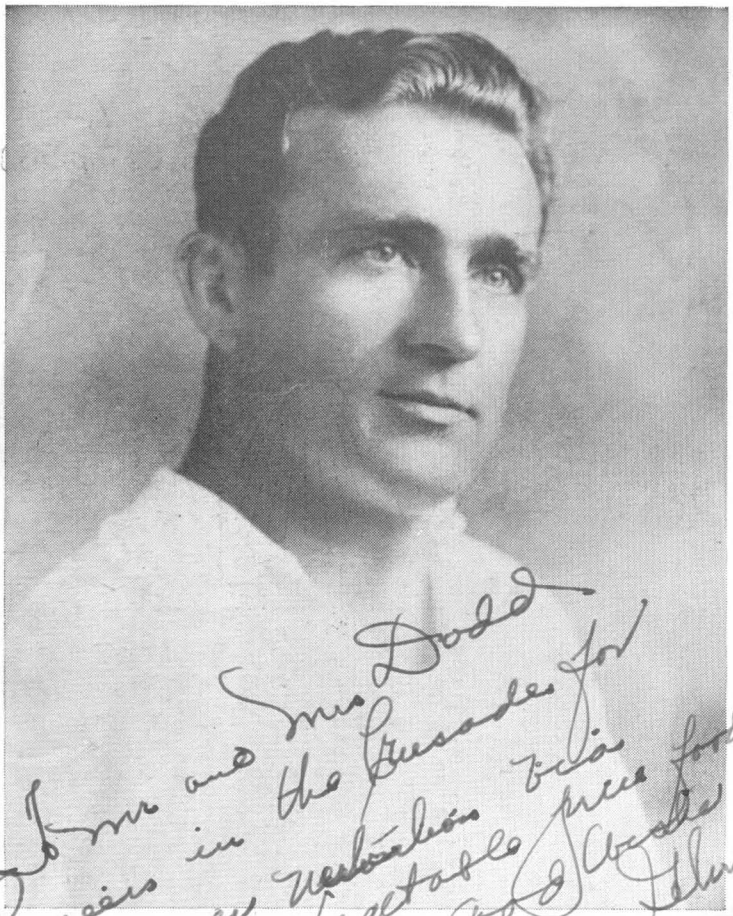

DR. JESSE MERCER GEHMAN, (N.D., M.N.)

DEDICATION

To all those who have pioneered in carrying the message of better nutrition and well being through nature's suncooked natural foods, so often erroneously referred to as raw food; and specifically to James Caleb Jackson, M. D., leader in American Medical Reform and the founder of Psycho-Hygiene, Bronson, Alcott, M.D., author of "Fruitlands"; C. E. Page, M.D., author of "Natural Cure of Consumption, Bright's Disease, Neuralgia, Rheumatism, Colds, Fevers, etc,, A Health Manual For People; T. L. Nichols, M.D., author of, "Diet, Cure"; Sylvester Graham, Dr. Lahman, and Dr. John Drews, author of "Unfired Foods"; to Eugene Christian, author of "Uncooked Foods", America's first food scientist and founder of the Corrective Eating Society; Julian P. Thomas, M. D., author of "The Advantages of Raw Food", Sir. Arbuthnot Lane, M. D., Bart., C. B., M. S., F. R. C. S., etc., Surgeon to the King of England, propounder of the theory of avitaminosis; H. Donald Bulkley, A. M., M. D., author of "The Non Surgical Treatment of Cancer", Christine Nolfi, M.D., raw food advocate, founder of Humlegaarden, Denmark, author of "My Experiences With Living Food", M. Hendhede, M. D., who saved the almost famished people of Denmark with one hundred per cent whole wheat, barley, rye, greens, milk, and especially potatoes, during the first World War; Bircher Benner, M. D., and his son Ralph Benner, M. D., of Zurich, Switzerland, pioneers in suncooked food; Mr. Gottlieb Duutweiler, founder of Migros, Switzerland, and Alex Burleigh, founder of the Original Organic Foods Market, New York, among the first established markets dispensing certified grown fruits and vegetables; Louise Lust, N. D., exponent of raw food, former Director of Yungborn, Butler, New Jersey; George Richter, N. D., and Mrs. Richter, author of Mrs. Richter's Cookless Book", of California, restauranteurs who catered to the thousands of people who found a better way of life through uncooked foods; to St. Louis A. Estees, D. D. S., author of "Raw Food and Health", and B. Stanford Claunch, N.D., and Mrs. B. Stanford Claunch, author of "Natural Food Recipes", Alfred W. Mc Cann, author of "Starving America", etc., to Ellen G. White, author of "Counsel on Foods", to Otoman Zar-Adusht-Hanish, M. D.,

Mazdaznan leader, author of "Mazdaznan Dietetics", to Bernarr Macfadden, the Father of Physical Culture, who published my first effort, "I Let The Sun Do My Cooking", and editorialized on my early food experiments in Physical Culture Magazine; to Elmer Lee, M. D., editor, and Alfred Turner, publisher of Health Culture, and to Dr. Benedict Lust, editor of Herald of Health and Nature's Path and founder of Naturopathy, for republishing it, and to Stanley Lief, N. D., D. O., and John H. Wood, N. D., editors of Health For All, London, England, for republishing a subsequent story, "My 5 Years on Sun Cooked Food; to Weston A. Price, M.S., D.D.S., F.A.C.D., author of "Nutrition and Physical Degeneration, a Comparison of Primitive and Modern Diets and Their Effects," an important work on Nutrition; to Dugdale Semple, author of The Sun Food Way to Health; to Royal Lee, D.D.S., founder of Lee Foundation for Nutritional Research; to Mary Macfadden, who so kindly made suncooked food available to me while conducting one of my experiments during my service with her husband, Mr. Macfadden, as his confidential aid 35 years ago; to my dear mother and father who were so tolerant and cooperative with my very earliest experiments and saw that I was supplied with important items while away at school; and to my beloved wife who, while being the best cook in the world, fully understands the great value of suncooked foods and makes them available; to the juice Therapists, N.W. Walker, D.Sc., R.D. Pope, M.D., author and compiler, respectively of "Raw Vegetable Juice-What Is Missing In Your Body?, Hans S. Anderson, author of "The New Food Therapy," H. E. Kirschner, M. D., author of "Live Food Juices For Vim, Vigor, Longer Life!", R. N. Robinson, author of "Dunking Vitality — Revitalizing The Body With Juices", and Arthur W. Snyder, Ph. D., author of "Nature's Way To Health-Juice Therapy," and the Hogle Foundation who have all emphasized juice for the ill, and made juice a topic of spirited discussion to thousands of people in the various liberal health movements; to the engineers who relentlessley experimented and finally produced the electrically powered juice extractors, and to the manufacturers who saw the opportunity of service in these appliances; and to the men and women who have been responsible for

introducing them to the American home, this humble effort is dedicated with sincere respect and appreciation for paving the way for public consideration of better nutrition via natural suncooked foods.

This little volume is sent into the world to shed its ray of light, healthwise, thereby adding its bit to all the effort in this field which has gone before, in the interest of the general public and in the hope that its message of more health and happiness for all, through sunenriched fresh fruit and vegetable juice food, will inspire those who read it to go forth in pursuit of health, and spread the message is the heartfelt wish of the author.

Jesse Mercer Gehman, N. D., M. N.
Consulting Health Specialist

Paterson, New Jersey
Reading, Pennsylvania
September 15, 1959

NATURA ARTIS MAGISTRA
(Nature is the Teacher of Science)
This was the motto of Paracelsus, famed Swiss Physician and Naturalist.
1493 - 1541

THE ONLY PROTECTION AGAINST DISEASE IS A HEALTHY BODY
GLORIFY GOD IN YOUR BODY
YOUR BODY IS THE TEMPLE OF THE SPIRIT
MEN SANA IN CORPORE SANO
(A sound mind in a sound body)

INTRODUCTION

Every book on raw fruit and vegetable juices it has been my privilege to read, has stressed therapy, and revealed the therapeutic value of juices, i.e. the value of juices in sickness, and perhaps justifiably so, because many ailing people have reported amazing results from adding fresh fruit and vegetable juice foods to their dietary.

I have often wondered why the average person has not been alerted to the value of these important foods, because the history of the past hundred years reveals we have had many champions of raw fruits and vegetables. Most of them referred to juices also, but the problem of extracting these readily had not been solved. But now that the modern electric power driven extractor has been on the scene for a score of years or more, one would expect that a juicer would be as common place in the home as the gas range, but unfortunately, such is not the case.

What about the health of the average person and the benefits to be derived by supplementing the daily intake of food with fresh suncooked fruit and vegetable juice foods? I have long been concerned about this and decided that a book, emphasizing foods for the average American, was long overdue.

My interest in live foods is not recent. It dates back over forty years, when I came upon the idea through Eugene Christian's work, "Uncooked Foods." I have since conducted many experiments with raw or uncooked, (what I prefer to call suncooked), fruit and vegetable foods and their juice, among them, 5 years of living exclusively on suncooked fare, many weeks of living on vegetables alone; starch, fat, protein, sugar free dietary. Some of the more important experiments on food are: 5 years on raw foods alone — 20 years without milk — 45 years without meat — 5 years using meat — 7 weeks on a "protein, starch, sugar, fat-free" dietary.

I was not ill, nor had I any reason to approach the idea of a revolutionary dietary except that I believed it logical, and as I was active athletically, I wished to be in the best possible physical condition with maximum energy. The dietary which Eugene Christian called "Uncooked Foods" promised much, so I followed it during two separate long term experiments.

There are a number of books on juice therapy; some good, some not so good and some indifferently mediocre. All of them have served a purpose, no doubt, to the ailing who have looked to juice foods for help, and, in so many cases, received it. The pioneers in juice therapy have proven their case admirably and have had some remarkable recoveries. They are deserving of much gratitude from those who have found health fresh fruit and vegetable juice food. But what about that vast throng of people who enjoy average health and who seek to, at least, preserve what they have; or, yes, better still, increase it? It is to these people that this work is directed.

If the vital, living elements in fresh fruit and vegetable juices can make marked changes in sick bodies, then it is reasonable to ask why they should not be able to make even more rapid changes, for the better, when put into bodies not encumbered to the extent that a specific disease has made its appearance?

This volume was conceived and dedicated to the purpose of presenting the why of fresh fruit and vegetable juice food for the average person. It provides a simple, straight forward story of why juices are good for all people on the premise that natural food values are more important to human nutrition than those calculated chemical constituents revealed in the laboratory. While the laboratory has been able to confirm and verify, it has never been able to establish any new principle not already known to, and in operation, by nature.

An attempt is made to present the simple picture of the natural nutrition of aboriginal man; what has happened to it during the chemical age, and the serious change in nutrition which the chemical age brought. An attempt is also made to point out the relationship of man's physical deterioration to his poor nutrition, and last but perhaps most important, how he can improve his nutrition by the use of sunrich, fresh, natural fruits and vegetables, and their juices.

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CHAPTER HEADINGS.

BRIEF BACKGROUND HISTORY OF AUTHOR

Jesse Mercer Gehman, (N. D., M. N., Ph.D.), widely known nutritionist, often referred to as "The Human Guinea Pig", was born at The Rock Church, near Elverson, in Chester County, and raised in Lancaster and Berks County, Pennsylvania; attended Reading High School, Mount Hermon Preparatory School, Huntington Preparatory School, and Mercersberg Academy. He took degrees in Nutrition, Naturopathy, and Chiropractic at The American School of Naturopathy and Chiropractic in New York, from which he graduated in 1925, received his master's degree in 1926, and his doctorate in Natural Philosophy in 1931.

After receiving his doctorate, he went to Yale where he did special work and conferred with Professor Lafayette B. Mendel, Sterling Professor of Physiological Chemistry, Yale University, Research Associate of the Carnegie Institution of Washington, D. C., author of "The Chemistry of Life, and subsequently became a conferee of Prof. Irving Fisher, Chairman of the Board of Life Extension Institute, Pro. of Political Economy of Yale University, and co-author with Eugene Lyman Fisk, M. D., Director of the Life Extension Institute of the most widely circulated health book in the world—"How To Live"—Prof. Fisher was also the organizer of Vitality Statistics, the most comprehensive system for gathering vital Records, the most comprehensive system for gathering vital

Because of his food experiments, among them, living on uncooked or raw food, the late Bernarr Macfadden, Father of Physical Culture, commented on it, editorially, in the Physical Culture Magazine, and extended to him, an invitation to join the staff of the magazine which he accepted and also became conferee of Milo Hastings, B. S., Director of the Physical Culture Nutrition Laboratory.

In 1945 Dr. Gehman was elected President of the American Naturopathic Association, succeeding the founder, Dr. Benedict Lust, and was reelected again in 1947 and 1948. In 1948, he headed up the First American Vegetarian Conference at Rhinebeck, New York, and in 1949, The First American Vegetarian Convention at Lake Geneva, Wisconsin, where The American Vegetarian Union was formed, of which he was unaminously elected President. He has been a member of the Board of Directors of the Human Engineering Foundation of Summit, New Jersey, since 1947; a director of the Citizens Medical Reference Bureau since 1948.

Health and Strength, London, England, in 1925, referred to Dr. Gehman as one of the world's best developed men; and in 1929, he was acclaimed internationally as The American Apollo in a story published in the American Weekly, supplement of the Hearst Paper, and also magazines here and abroad, thus giving credence to the nutritional and physical culture theories and practices he teaches.

He has been an active writer for almost forty years. His affiliations include:

FORMERLY ASSISTANT EDITOR

Physical Culture Magazine
Nature's Path Magazine
Correst Eating Magazine
Health Culture Magazine

EDITORIAL CONSULTANT

Journal of Natural Hygiene

CONTRIBUTOR TO NUMEROUS OTHER PERIODICALS HERE AND ABROAD, AMONG THEM,

Health For All, London, England
Life Natural, India
Nature's Path To Health, Australia
Naturista, Portugal

CREATOR OF RADIO SERIES

Health Ways
Nature's Highway To Health

CREATOR OF NEWSPAPER COLUMNS

Nature's Highway To Health
Health For Victory Box
Why Not Live A Longer Life
Living Today For Tomorrow
President of The American Naturopathic Assn.
President of The American Vegetarian Union
Director of Human Engineering Foundation
Former Member of Board of Directors,
Loomis T. B. Sanitarium, at Liberty, New York
Executive Secy. of Interstate Narcotic Association
Member Board—National Federation For Narcotic Educa.
Member Board—Dr. T. M. Schippell
Naturopathic Foundation, Washington, D. C.

"The Keystone of Healthful, Happy Living Is Simple, Natural, Vital, Live Food Used As Close To Its Natural Source As It Can Be Conveniently and Pleasantly Used."

CHAPTER, THE FIRST

JUICE FOODS AND THEIR RELATION TO OUR HEALTH

The rapidly moving civilization of which all of us are a part, and its exhausting effect on the body, demands that we have high-powered effective nourishment which is quickly and easily digested, to supply the urgent nutritional needs for an ever-increasing number of people from coast to coast.

We are living in the most food conscious era of all time.

No one can deny that good health and ill health are closely related to the kind and quality of food we eat.

Good foods mean good health as a general rule. Poor foods mean poor health as a general rule, and are a contributing factor in most illness.

There are foods which can, in simple terms, be called the power foods as the predominantly starch, sugar, fat and protein foods, which all of us eat of too freely.

Then there are the protective foods as fresh fruit and vegetables, supplying an abundance of vitamins, minerals, and enzymes. Most of us neglect the foods richest in these, and therefore, do not get enough of them.

The former foods, the power foods, are the ones which create most of our troubles; the latter foods, the protective ones, counteract the heavier foods and contribute immensely to our well being.

The starches, sugars, fats and proteins, of which we all eat to excess have been justifiably referred to as the "clogging" or acid forming foods, as we eat most of them cooked. Cooking this material renders the excess starch, more soluable in the bloodstream, and so the blood and consequently the whole system becomes encumbered. The vitamin, mineral, and enzyme-rich natural foods, if used in larger quantity than that to which most people are ordinarily accustomed, counteract the clogging foods and thus keep the system clean.

No foods are better equipped to do this job than the fresh sun-cooked fruit and vegetables and their freshly extracted juices.

These sunpowered foods, direct from the bosom of nature, have grown increasingly familiar among the general populace in the past several years; especially has this been noted since so many reported remarkable recoveries from various illness were recorded by the pioneering juice therapists.

Tens of thousands of people have taken to imbibing daily of these "vitamin, mineral, enzyme-rich" liquid foods

which the fresh fruits and vegetables contain in such wonderful quality and abundance.

Nothing in the nutritional history of man has appealed so widely and strongly to every member of the household, as these sun-rich juice foods which are now made available to everyone through the electric powered juicer. Healthy people everywhere are becoming more aware that the way they feel depends upon what they put into their stomachs; and are wisely changing their food habits to include juice foods with their meals daily instead of other liquids, in order to maintain a high degree of nutrition and well being. Food conscious Americans recognize the absolute necessity to select their food with greater care than ever before.

The exposure by the Food and Drug Administration of the seizure and confiscation of contaminated or misbranded foods reported each month proves the fact that much can and does happen to food between the time it is harvested in the fields, gardens or orchards of our bounteous land, and the time it reaches our tables.

Mass food poisonings which occur from seemingly out of nowhere suggest greater care in the selection and preparation of food.

So too, has the enrichment of bread and cereals awakened people; and the additives placed in other foods have raised the question in the minds of many: "What's wrong with our foods if they have to be enriched; if they have to have things added to them to make them tasty, better in appearance, and more nourishing?"

Numerous articles have appeared in some of the leading magazines of the country exposing what are referred to as, food frauds, gross adulteration and actual poisoning, through the neglect of food after it leaves the arms of Mother Nature.

More and more people are turning to a source of foods which eliminates the processors. They are purchasing more vegetables and fruits, and decreasing purchases of prepared foods. Many families are even getting these foods direct from the farmers. They drive out and pick up the family supply from their favorite roadside produce stand or farm. Thousands of families have found that converting a proportion of these fresh sunripened fruits and vegetables to juice is the most direct, safe and economical way to serve the family needs for high level nutrition.

The march in this direction has definitely been under way for several years. It is increasing at a phenomenal rate. People have come to know that no processed drink can compare, for "taste satisfaction" and refreshment, with a glass of cool carrot or grape juice, or a glass of carrot juice combined with either celery or cucumber juice.

And for one who likes very sweet drinks there is nothing in bottles to compare with fresh red beet and carrot juice combined with a small amount of parsley root juice, proportions of four ounces of carrot, two of beet and one of parsley root.

Fruits which are sweeter and have less of the "earthy flavors" can be combined in any manner desired with complete satisfaction.

Those who prefer the more tangy juice flavors will find cabbage juice with an ounce of dandelion or watercress, or mustard green juice added, satisfactory. More tangy taste can be achieved by a few drops of lemon, lime or grapefruit juice.

Among the fruit juices, nearly everyone has enjoyed bottled apple juice but with the flick of a switch the modern juice extractor provides fresh apple juice in a matter of minutes.

Rich peach juice, which is heavy,prepared from the fresh peaches, is a new found food delight, either by itself or topped with cocoanut or cream.

Pineapple and cantaloupe juice mixed half and half provides one of the most satisfying taste combinations of all. It is delicious.

Freshly extracted grape juice of any variety is exceptionally nourishing and pleasing.

All of the melons: watermelon, cantaloupe, persian melon, etc. make an excellent heavy liquid food which can be used alone or with pineapple or apple juice.

There are flavorsome combinations for the most exacting taste, and all of these freshly extracted juices supply the vitamins, minerals and enzymes in which so many of our ordinary foods, especially cooked ones, are deficient.

It is the wide range of flavors and the potential of developing exotic taste combinations made from raw fruits or vegetable juices which make for an interesting addition to the pleasures of eating.

I have merely scratched the surface of these possibilities, preferring only to convey the general idea of fresh fruit and vegetable juice foods for all who value their health, and to encourage each to work out the combinations most favored. However, I am giving a few general ideas which are followed by a reasonably "ideal daily use of juice foods" and their combinations, for general purposes.

On general principles for daily use, the person who uses the average American diet but who wishes to supplement it, should at least use whatever juice his taste prefers, either before or with meals, in quantities of six ounces at a time.

To get the best all around combination, the better guide is "taste satisfaction", unless the taste has become so perverted by acquired habit for unnatural flavors.

Any member of the family who is in the habit of using liquid with meals, will profit immeasurably by substituting six ounces of carrot juice, which is tasty and highly nutritious, with meals.

However, an ideal and reasonably balanced and appetizing juice-food day is presented here as a general guide.

Upon Arising — 6 ounces apple juice.

Mid-morning or Before Lunch — 6 ounces of carrot, 2 ounces spinach.

Mid-afternoon or Before Dinner — 6 ounces carrot, cucumber and beet (2 ounces of each in combination)

Before Retiring — 6 ounces carrot, celery and parsley proportioned, 3 ounces carrot, 2 of celery, 1 of parsley.

According to season, the apple juice can be replaced with grape, peach, plum, or nectarine juice.

If vegetables are not available and time does not permit of this variety, then make sure to use the more common ones, as carrot, celery and apples, which contain practically all the vitamins and minerals known to man; and everyone of them is a zestful drink.

The likes and dislikes of the various members of the family can determine the flavors for each, but generally the simple juice foods referred to, are liked by most people.

Three general principles are well to bear in mind as a guide in combining vegetable juices.

(1) The juice of the roots as carrot, beets, parsnips, combined with a leafy vegetable or gourd, usually assures taste satisfaction.

(2) The juice of the bland greens as cabbage, celery, cucumber, pepper, cabbage and celery, broccoli and celery or cauliflower and celery make desirable combinations.

(3) Juices from the more pungent greens as mustard greens, dandelions, watercress, beet tops, turnip greens, carrot tops, should be used in small quantity to prevent bitterness or pungency, unless desired. It is preferable to use one ounce, not more than two of of any of these, with any of the other combinations.

Juice foods are for all. For the ill they have been proven a great aid; and the healthy have been attracted to this quick means of superior nutrition because they are supporting and maintaining health, energy and efficiency.

The many reported and authenticated recoveries by juice therapists strongly suggested that here was the hidden answer to many nutritional disorders. If the ill could show

such marked improvement by simply including the liberal use of fresh fruit and vegetable juices in the diet, people reasoned, they were equally valuable to assure good nutrition for the healthy in these days of uncertain food sources, and were therefore important for the healthy who have no serious ills.

Many have found that the fresh fruit and vegetable juice food way is the safest and most economic to avoid the fatigue of "hidden starvation", provide the most ready source of quick general energy and dynamic vitality and vigor. These fresh suncooked pulsating liquid foods for energizing the blood and tissues of the body are unsurpassed.

The romantic story supplying the answer to the question: Why use suncooked fruit and vegetable juices? unfolds in the chapters which follow.

"Look To Your Health, and If You Have It Praise God, and Value It Next To A Good Conscience."

Isaac Walton

CHAPTER, THE SECOND

THE RE-DISCOVERY OF FRUIT AND VEGETABLE JUICES

The high tempo of American living demands rapid high potency nourishment.

Fresh sun enriched fruit and vegetable juice foods are to-day's answer to America's demand for the best nutrition at low cost.

These juices have become not only remarkably popular as beverages or drinks at juice bars and in many homes, but are now beginning to assume one of the most important forms of nourishment to hundreds of thousands of people throughout the country, and promises to become even more so, despite the fact that the appeal of the juice therapists has been to the sick and ailing, the afflicted and suffering, instead of the general public, interested in preserving health.

We predict that the time is not far distant before a family juicer will become as common as the family refrigerator or toaster. For fresh fruit and vegetable juice foods are here to stay.

Fruit and vegetable juices are seemingly a rather recent innovation in the American nutrition field, but actually they were used long before the arrival of hand press juicing machines and the electric power extractors of recent years.

Many of the old pioneers in the Medical Reform Movement, which was extant in this country 100 to 150 years ago, used juices of one kind or another in the nutritional part of

their work, especially in severe cases where digestive powers were weakened by the ravages of chronic disease.

At least one of these great pioneer leaders envisioned the coming of an era of the universal use of fruit and vegetable juices. He was T. L. Nichols, M.D., who made this striking statement in his book 'The Diet Cure', in 1881, just two years short of eighty years ago:

" . . . Man, whose natural drink is water might easily substitute for it the juice of fruit."

Doctor Nichols was a brilliant scholar and the author of a number of books, among them: "How To Live on Six Pence a Day"; "How To Cook"; "Esoteric Anthropology"; "Human Physiology, the Basis of Sanitary and Social Science", etc. etc.

Nine years before Doctor Nichols proclaimed the value of fruit juice, another leading physician, Albert J. Bellows, M.D., spoke out vigorously for both fruit and vegetable juice in his book: "The Philosophy of Eating", published by the Houghton Mifflen Company, of New York. Doctor Bellows stated:

"The phosphates of succulent vegetables and fruits, where nourishment is mostly in their juices, are of course soluble . . .

"They also contain the acids which are needed every day, . . . and the amount of refreshing nourishment in them is much greater than would at first appear as the result of analysis."

Actually the electric powered mechanical "juicer" age dates back probably less than twenty-five years, though juices were recommended in such outstanding works as the Lindlahr Vegetarian Cookbook, by Anna and Henry Lindlahr, M.D., published in 1918. They recommended fruit juices for babies.

Doctor Philip Lovell also recommended juices in his widely read book, "Diet For Health By Natural Methods", published by the Times-Mirror Press of Los Angeles, California, in 1927. It contained recipes for eighteen different fruit and vegetable juice combinations, along with these general instructions for juicing vegetables:

"Take two carrots and a bunch of spinach and grind very fine and strain through cheesecloth."

Without doubt the most eye appealing treatise on the subject of natural foods, by Maria Hornbacker and Ruth Pearson, published in 1941, by the Wahl Brothers Graphic Arts Center, Barren Springs, Michigan, under the title of: "The Fine Art of Cooking", carried the following instructions:

"Wash and scrape large carrots and grate them into bowl. Squeeze through cheesecloth or vegetable press".

A similar recommendation for preparing vegetable juices was made by Otto Carque, in his historic work, "Rational Diet, An Advance Treatise", published in 1923 by the Time-Mirror Press, Los Angeles, California, when he wrote:

"Fresh vegetable juices, made by grinding the vegetables in a food chopper, and pressing the pulp through cheesecloth, have a great therapeutic value and may often be used in infant feeding. Owing to their high content of alkaline salts and mild organic acids, fresh vegetable juice when absorbed exert a salutary influence on the composition of the blood by increasing the alkalinity."

Of those who referred to juices and their uses prior to the coming of the electrical power extractor machines, Dr. Otoman Zar-Adusht-Hanish provides the most comprehensive and some of the most significant instructions for using fresh fruit and vegetable juices, that have come to my notice. His theories and findings are disseminated by the Mazdaznan philosophy, which had its origin in Zoroasterianism, reputedly the world's oldest religion, founded in Persia many thousands of years ago. I quote from the "Mazdaznan Science od Dietetics" by Dr. Otoman-Zar-Adusht Hanish, M.D., D.D., Original Edition, 1914, (British)

"Fruit and vegetable juices diluted or undiluted are beneficial in many disorders and act as eliminators. Juices which require to be heated for curative purposes should not be brought into direct contact with dry heat, but poured into a glass container and then placed in a sauce pan of water and heated gradually."

Note the power ascribed to fruit juice as eliminators and observe the reference to dry heat and compare with the present day confirmatory findings that heat alters vitamins and minerals; and above 110°F. destroys enzymes.

The method of extraction of fruit employs the old fashioned potato masher which is referred to in the following quote.

"In order to extract the juice of fresh pineapple, pear, or melon, etc., grate the fruit on a fine grater, tie up in a muslin bag, and extract the juice by means of a potato squeezer; fruits like the pomegranate should be cut in half and placed on a lemon squeezer.

Note that Dr. Hanish ascribes corrective properties to vegetable juices in their pure undiluted state. Present day juice therapists confirm his theory.

"The pure juices of root vegetables may be extracted likewise by resorting to a fine grater and a muslin bag. In the case of green leaf vegetables, they should be well rinsed in cold water and then run through a mincer and similarly treated. The pure undiluted juices of vegetables have many curative properties.

Dr. Hanish, referred to as Master by his many followers, then went on to give instruction for uses of specific fruit and vegetable combinations.

Since these observations were written, much laboratory research has been prosecuted which confirms the belief and practices of these early American nutritionists who had the vision to use fresh fruit and vegetable juice.

But it was Dr. Lahman of Germany, who seventy years ago brought out one of the first juice extractors of which we have any knowledge. There followed, of course, the bottled juices which seemed to satisfy the demand until the great orange juice crusade of the citrus industry of thirty years ago, that soon had nearly everyone ordering it in house and restaurant as a breakfast appetizer before the bacon and eggs.

People, when they became more fresh fruit juice minded, were not satisfied drinking only citrus fruit juice, or waiting until the Fall for fresh apple juice. They wanted juices all year around, if possible; not only orange juice, and not only canned juice, either; but fresh. Just how to get fresh juices was the problem.

Many health minded mothers catered to the baby's wants and needs for juice by grating or macerating grapes, or berries, or cherries, or any other fruit which could be readily squeezed through cheesecloth or a linen handkerchief so baby could have a healthful change from his usual fare of milk. They recognized that no fluid could be more pure than fresh fruit juice, and that all the nutritional values for building health and strength were in the juice. We did this ourselves as far back as thirty years ago for the first time to provide fresh grape, pear and apple juice for our children when they were babies.

The growing availability of fruits and vegetables, because of better transportation, storage and marketing conditions, made these important foods more prominent in the dietary of every home in this fair land. The answer to the fresh fruit and vegetable juice problem has turned out to be one localized in the average American home where mothers and fathers are solving it when they recognize the necessity of juices as a regular part of the daily meals.

Discovery of certain specific nutritional factors in varying quantities in the vegetable juices; and the fact that the average person would not consume enough vegetables to provide the accepted amounts of these factors, demanded a satisfactory way of getting juice from these foods.

Empirical experiments with juices, by the pioneers in the profession 100 years ago, the personal experiences of any who used juice on their own, prior to the days of an extractor or juicer, plus the findings of nutritional laboratories and engineering establishments, are all responsible for the improved methods we have today for the extraction of fruit and vegetable juice, and for the present re-discovery of this most healthful natural food for daily use in the "nutritionally poor" American dietary to benefit everyone.

"Health Is The Vital Principle of Bliss."
James Thompson

CHAPTER, THE THIRD

RAW FRUITS AND VEGETABLES AND THEIR JUICE — HOW THEY COME TO BE MORE UNIVERSALLY USED

There is scarcely a family in this glorious expansive country that has not heard of the high nutritive value of fruit and vegetable juices.

Nearly every one has at some time or other tasted of at least fruit juices, yet, few are aware that it has taken more than seventy years of pioneering nutritional work to actually bring fresh fruit and vegetable juices to the American home for the use of the entire family, until now they are an accepted commodity like the old stand-bys, usually referred to as the staples: milk, meat, potatoes, gravy, bread and apple pie, and coffee.

Early American nutritionists knew that there was marked value in fruits and vegetables other than protein, fats and carbohydrates, hitherto undiscovered or isolated in the chemical laboratory, and there was a school of physicians who adhered firmly to this belief and refused to accept the, now proven, inadequate calorie theory for measuring the nutritional value of foods.

The men who advanced the calorie theory considered the human body just like a machine and compared its energy to that of the steam engine, produced from coal or other fuel.

They knew that it took so much heat to raise the temperature of water to a certain degree. So they computed the value of foods on the basis of heat or energy units.

They knew that foods produced heat in accordance with the energy content of the food, and to arrive at a unit of calculation they accepted the calorie theory which is nothing more or less than the amount of heat required to raise one litre of water, one degree centigrade, thus totally disregarding the unknown factors of nutrition. Some of these unknown factors are now well known as the vitamins, and minerals. Others may never be known except to Nature. Many have been isolated and their definite connection with certain life sustaining principles established.

Even with the isolation of the vitamin, called 'Vitamine' by the discoverer, Casmir Funk in 1911, (vividly do I recall my grandfather reading aloud of the discovery from his weekly paper when I was a boy), nutritionists have clung to the calorie theory. The calculation of food value used in all food charts today are still based upon it.

The stalwarts on the American nutrition scene, who by the empirical method of, 'trial and error' had seen their theories of the presence of unknown vital factors in food borne out and who were ridiculed, have now in part been vindicated, by modern nutritional research.

"Uncooked Food", published by Eugene Christian in 1903, was one of the first to extoll the virtues of raw foods and raw juices. His following was large. He founded The Corrective Eating Society, which had many adherents.

Then came the pioneering work of Louise Lust, N.D., the wife of Benedict Lust, M.D., N.D., Founder of Naturopathy, who wrote a Cook Book on both cooked and uncooked food in 1906, and who herself lived on raw food for many years.

They were followed by a monumental volume "Unfired Food and Tropotherapy", of over 300 pages, by George Drews, M.D. in 1909, in which the superior value of sun ripened food was emphasized.

The writer himself was first inspired to an interest in raw food and juice in 1918 by Eugene Christian's work, "Uncooked Food" and lived on uncooked food for eleven weeks, which was interfered with because of school attendance away from home. A year later it was feasible for him to make a longer experiment lasting five years, which prompted him to write, "I Let The Sun Do My Cooking", published by Physical Culture in 1924, and in "Health Culture" in 1925.

About that time one of the greatest treatises ever written in the nutritional field, "Cancer" by J. Ellis Barker, with an introduction by Sir Arbuthnot Lane, physician and surgeon to, the then, King of England, appeared with the announced

theory of "Avitaminosis", or a lack of vitamins and minerals in the food supply caused by denatured and cooked foods, as a primary cause of cancer.

While the theory was rejected by the regular profession, generally, 1500 British physicians accepted it and under Dr. Lane's leadership formed the New Health Society of Great Britain, issued a magazine, "New Health", and held forth for a number of years until Dr. Lane felt the educational work for the profession had succeeded.

It had succeeded in bringing the lay mind in contact with the theory, but professionally it resulted in Dr. Lane withdrawing in protest from the British Medical Association, and his being rejected when he arrived in this country for a lecture tour.

On this side of the Atlantic, other alert minds were also at work in the nutritional field, Professors Mendel of Yale, Hastings of Iowa State, and Physical Culture Laboratory and Sherman of Columbia, emblazoned the findings of the nutritional experiments of men as they were announced.

The late Alfred W. McCann, Sr., one time Columnist of the famous New York World-Globe, author of several works revealing our horrible nutrition, was one of America's leading crusaders for better foods.

He electrified America in his astounding volume, "Starving America", in 1913, and shook the very foundations of food processing and adulterating. But it was in: "The Science of Eating" published in 1918 by the George H. Doran Company of New York, that he high-lighted the example of what happens to the human body when there is a deficiency or lack of fresh fruits and the juices of vegetables, in the famous "Kronprinz Wilhelm Poison Squad Story" . . . 110 of the 500 man crew were down with a malady which baffled medical science. By a ruse McCann gained admission to the ship. The men had lived for 255 days on the spoils of victory, the food from ships sunk during a period of 255 days.

We quote from Alfred McCann's account:

> "Here was a crew of men living in the open air, eating the staple articles of diet for which the American scientists claim so much. Fresh meat, all the fat and cheese they could eat, boiled potatoes, canned vegetables, condensed milk, sugar, tons of fancy cakes, biscuits and white bread, and all the coffee and tea they could drink constituted their diet
>
> "But if German sailors eat typical American meals for two hundred and fifty-five days and develop on that diet of white bread and meat a condition of malnutrition that has resulted so disastrously, why do not the

Americans themselves develop the same conditions? you ask.

"Americans do develop the same conditions, but because they eat many other offsetting foods, which were outside the reach of the German sailors, the severity of the condition is modified accordingly.

"On the Kronprinz Wilhelm the intensity of the cause determined the gravity of the effect. There was no outside assistance in the form of offsetting fresh vegetables and fruits or whole grain foods to lessen that intensity . . ."

Referring to the high carbohydrate, vitamin, mineral deficient dietary the crew of the Kronprinz Wilhelm was obliged to subsist on, Mr. McCann went on to expose the folly of the calorie theory as a basis of food evaluation and the equal folly of ignoring the value of mineral salts, colloids and vitamins — all present in fresh fruits and vegetables, and the life blood of these marvellous foods, their juice.

"No prolonged experiments had ever been conducted to determine the evil result of living exclusively on such foods. The Kronprinz Wilhelm furnished that experiment.

"There can be no greater or more picturesque proof of the folly of unbalancing food by refinement, of the folly of ignoring the meaning of the salts, colloids and vitamines natural to all unprocessed foods; of the folly of claiming for high caloric foods the absurd virtues they do not possess.

"With Dr. Perrenon, the ship's surgeon, I went over all these points, and many more, treating them in detail. I did not suggest to him that it was beri-beri which had so tragically affected his men, for the reason that the cure for beri-beri, pellagra, acidosis, nephritis, edema and scurvy is the same. It consists in restoring by unrefined foods to the sapped body the bases stolen from it.

"Dr. Perrenon asked me to write a formula for feeding his stricken men. I did so, left him an article I had written on the subject and returned to New York. Then came the following response in writing:

"With respect to the disease we have on board we are satisfied now that this condition is due to the impoverished character of our food supply. The remedy you have suggested is obviously the correct one and I shall immediately order its application. I shall read your monograph studiously."

"E. Perrenon,
Chief Surgeon, S. S. Kronprinz Wilhelm."

It should be pointed out that the formula consisted in supplying, "fresh fruits and vegetables" and, please note: "Using the water in which all vegetables (unpeeled) were cooked."

Few men of the regular profession however, accepted the theories of the new nutrition. Top among them who did grasp them was Dr. L. Donald Bulkley, whose work came to my attention as a young man when I was Assistant Editor of Physical Culture magazine.

We published several of Dr. Bulkley's articles. He was aware of the need of the vital juices of vegetables for the human body. Whether the thought occurred to him or not that these juices would be of greater value raw, we do not know; it probably did. Nevertheless he did conceive of a very slow cooking process at low heat to preserve all the vitamins and minerals possible, retain the juice too, and produce his famous "Vital Salts Brews", which he used in his extensive practice.

Dr. Bulkley was a recognized cancer specialist, had used the then widely accepted X-ray, but his observations had so convinced him of the role of specialized nutrition that he revealed his findings in his work, "The Non-Surgical Treatment of Cancer", 1921, and also used his new found methods of "juice therapy" with marked success, in the New York Skin and Cancer Hospital, which he had founded.

Doctor Bulkley had previously written and published the work, "The Medical Aspects of Cancer", in which he refers on two occasions to the unquestioned value of vegetables. His continuous research in food over a period of forty years convinced him there was an effective non-medical treatment. In this work he made the following determined pronouncement:

> "The dietetic treatment of cancer, then, both prophylactic and active, consists in an absolutely vegetarian diet, so lightly proportioned in its vegetable protein, carbohydrates, and fats as to afford perfect nutrition, and so arranged and administered as to be acceptable and attractive, in order that the patient may be constantly conscious of a general well being, and exhibit a steady improved state of health . . "

He further stated:

> "This vegetable stock (made from all the vegetables used by the family), contains all the salts and other valuable extracts from the vegetables, which are commonly thrown away, to the great detriment of nutrition."

These men and women, physicians trained to observe and detect, who in their daily lives were face to face with the

ravages of disease, and who by this experience came to recognize the relationship of poor nutrition, deficient food, to illness, confirmed once more the irrevocable and immutable laws of natural nutrition.

Doctor Bulkley drives home the essential of natural nutrition for man in the following clear cut statement quoted from: "Cancer and Its Non-Surgical Treatment":

> "Plant Life is the connection between the minerals and salts of the earth and animal life, but in the manufacture or refinement and cooking, of products of the vegetable kingdom many of them are demineralized."

The suncooked fruit and vegetable juices so readily extracted by modern electric machines provide the live essential food which Doctor Bulkley extolled.

Nutritional research, as far back as twenty years ago, established the superiority of raw milk over pasteurized milk in many ways. Not the last of those experiments was at the West of Scotland Agriculture College at Auchencruive, near Ayr. This was confirmed by Professor Erf of Ohio State University. The Scottish experiment is referred to in another chapter.

The raw food and raw fruit and vegetable and the raw juice regime was successfully carried out by the late Eugene V. Bergholz, M.D., at The Bergholz Health Institute of Milwaukee, Wisconsin, and at Dr. Robert G. Anderson's Camp Hygiology, Rhinebeck, New York, and Dr. Gian Cursio's Castle of Health, at Rochester, New York, and at Bernarr Macfadden's Physical Culture Hotel, Dansville, New York. But by far the institution with the longest continuous history in this work is the famous Bircher-Benner Clinic, Zurich, Switzerland, founded by Bircher-Benner, M.D., and now carried on by his son Ralph Bircher, M.D. This was one of the first to establish a regimen of raw food and raw fruit and juice therapy, and the thousands who have been cared for there from all over the world, helped tremendously to keep the idea of fresh fruit and vegetables alive, and hence encouraged the wider acceptance of them.

Thus we see how the vegetable juice idea came to be rediscovered by stalwart pioneers for the good of all the people today.

Complementing the foregoing efforts we have the equally startling work of the late Dr. Christine Nolfi of Denmark, who claimed she cured herself of cancer with raw food, then went on to set up an institution at Humlesgarden, in Denmark, where she carried on her work.

This acceptance will continue to grow until these vital foods become an important part of every one's daily nutrition.

So the present day precision machines which extract juices from fruits and vegetables, have been born to meet a demand — a need created by the alertness of the growing health mindedness of a public which has finally accepted the findings of the pioneer nutritionists of America and abroad, dating back over the last century.

These records show that a new era of nutrition in raw foods, raw fruits and vegetables and their juices is preserving health and saving lives — and adding life to the years that are added.

O, Besta Sanitas
(O Blessed Health)

Latin Proverb

CHAPTER, THE FOURTH

THE LIFE PRINCIPLES OF FRUIT AND VEGETABLES ARE IN THEIR JUICE

"The essence of immunity lies in the living elements of the body," thus wrote Elie Metchnikoff

This declaration by one of the greatest scientists of all time, Elie Metchnikoff, has been borne out and confirmed again and again, not only in nutritional laboratories all over the world, but in the every day experience of living life.

From whence do these living elements come? This is a logical question, and there is a simple and logical answer The living elements of the body are derived from living or live foods, of which too few people manage to get enough of, simply because they do not know the difference between genuinely live foods, or "life giving" foods and those foods which have suffered severe loss of the live elements. In prehistoric days such fruits and vegetables as were available grew wild, and were eaten and enjoyed as they were plucked or picked. There was no preparation whatsoever. Fixing or preparation seems to have been an accompaniment of the discovery of fire. The cultivation of some of the fruits and vegetables we use today date back to remote antiquity, and others we enjoy are of more recent vintage. Luther Burbank the plant wizard is responsible for many varieties, and other naturalists and horticulturists have contributed their share to give modern man newer varieties of fruits and vegetables, with rich flavors, but still man, by "fire-cooking," loses the intrinsic life value of these foods which are delicious, suncooked in Nature's kitchen, the great outdoors.

IS THE JUICE-FOOD ERA The BEGINNING OF MAN'S RETURN TO NATURE To CLAIM HIS NATURAL HERITAGE, HEALTH?

At this point it would seem that the advent of the Juice-Food era represents a big step in the direction of man's Return to Nature, as recommended first, by Newton, and also advocated by Adolph Just. Both these men were Naturists of the nineteenth century, and both were authors of works under the title of "RETURN TO NATURE."

Mythology contains many truths man has learned through centuries of living, not the least of which is that of the reason for his illness. These truths are symbolized and embellished in stories which had great significance in the days when they were written, and still hold much of value for men and women to-day.

The story of Prometheus, known to every school boy, heralds the discovery of fire. Its association with disease is effectively told by Newton in his Return to Nature. It was so important to Russell T. Trall, M.D., one of the distinguished leaders of the Medical Reform Movement a century back, that he republished it in his great work on nutrition: Fruits And Farinacea" in 1875, under the title of: "The Coming of Disease," from which I quote:

> **"Man at his creation, was endowed with the gift of perpetual youth; that is, he was formed not to be a sickly, suffering creature, as we now see him, but to enjoy health, and to sink by slow degrees into the bosom of his parent earth, without disease or pain. Prometheus first taught the use of animal food (primus bovem occident prometheus) and of fire, with which to render it more digestible and pleasing to the taste. Jupiter, and the rest of the gods, following the consequences of these inventions, were amused or irritated at the short-sighted devices of the newly-formed creature and left him to experience the sad effects of them. Thirst, the necessary concomitant of a flesh diet perhaps of all diet vitiated by culinary preparations, ensued; water was resorted to and forfeited the inestimable gift of health which he had received from Heaven; he became diseased — the partaker of a precarious existence; and no longer descended slowly into the grave."**

Ever since man began preparing his food, each generation has vied with the previous one in concocting new uses for this or that food by seeping, soaking, draining, combining cook-

ing and frying and otherwise fixing it until the culinary art has come to be known as one of the chief causes of malnutrition, chief causitive factor of man's many ailments, and diseases. The reason: **BECAUSE COOKING ALTERS OR DESTROYS THE LIFE ELEMENTS OF FOOD.**

Food which is cooked, unless the art of cooking has been carried on very carefully, results in the alteration or destruction of the positive building elements of it, known better by the general terms, vitamins and minerals. What it does to starch, proteins and fats is bad enough, but that they are altered there is no question.

Each of the vitamins and minerals suffer varying degrees of loss when food is cooked according to all researches conducted in this direction.

Some minerals and vitamins are more highly vulnerable to heat than others. But generally it can be said without possible contradiction that the loss is quite substantial and general to most of these vital principles of food. Therefore, it is highly important for those people who insist upon living on a dietary composed of 90 percent cooked foods, the accepted norm of most people, to make up for this serious food loss.

Since our esthetic sense would not condone eating meat raw or uncooked, as was practiced by man before the coming of fire, and still is by the natives of the Frigid Zone; and, certain other foods as the legumes, peas, beans and grains, an important part of our food supply require cooking. It follows that we are duty bound to use the fruits and vegetables, which are so delicious as mother nature prepares them, in order to make up for the great losses in those foods which we are obliged to cook because of custom, flavor and convenience.

For those who insist upon cooking, it is important to know that the life force of fruits and vegetables is mainly in the juice of these foods. It is reasonable to see that this vital essence should be altered as little as possible by the heat of cooking. Therefore, as little water as possible should be used when cooking, and when the food has been cooked, what water remains should be retained and used with the fruit and vegetables, so that as much of the minerals and vitamins of these foods as possible can be assured.

Despite modern cooking utensils and better controlled heat, still the majority of women, when they cook fruits or vegetables, or other foods for that matter, use too much water, let the water boil endlessly, and when the food is cooked, proceed to pour the water, which contains what remains of vitamins and minerals, down the drain.

In this day of the more natural nutrition, this seems fantastic, but it is nevertheless true, and a look into home economic classes of almost any school will confirm this statement, because their methods of vicious cooking are being taught to the mothers of generations yet unborn. We have raised three daughters and though all had the so-called advantage of home economics instruction in school, they were previously taught how to cook at home and recognized that most of what high salaried cooking teachers in our public schools and high schools taught them, was in error, and hence a distinct disadvantage to health and a loss of time.

Antiquated cooking methods, before the destructive effect on food was thought of, or discovered, was generally accepted by nutritionists.

Man is the only creature to conceive of using fire in an effort to improve upon the products of Nature, and to make live food more palatable.

It is said that so far as roasted meat is concerned, it started with an economic disaster in China; a prehistoric farmer lost his entire stock of pigs by a fire. Surveying the devastation, he chanced to kick one of the carcasses and the meat was so well done that the charred exterior broke open and revealed clean flesh of an appealing hue. He decided to try it, found it tasteful and thus he turned what appeared to be an economic tragedy into profit, thereby discovering a new dish, roast pork, now universally used.

The animals of the field, both the omniverous and the herbiverous partake of grass, sprouts, fruits, nuts, vegetation without the so-called benefit of fire, and fare admirably well, compared to the biped man who elects to cook nearly all his food, thus destroying in large measure, the life giving forces of all the wonderful foods nature provides.

Yet, man has been slow to learn from the animals, by observation, what is best for him. Half a century ago tomatoes were thought to be disease-producing, and hence were cooked before eating. This was before they were even dreamed of for use as a refreshing juice. And so too, stewed apples and pears and plums were common additions to meals.

Our grandmothers used to "put up" or can countless jars of fruits and vegetables in the bounteous harvest season for the cold winter months, when fresh fruits and vegetables were not to be had.

An aftermath of this was the development of the canning industry, which even today still supplies large amounts of fruits and vegetables.

Both in the process of grandmother's day, including the evaporation process she also used for fruits and vegetables, and the modern method of canning, there was a proportionate loss of minerals and vitamins. But in the old days this was counteracted by an uncooked or unheated milk supply, and the use of more liberal quantities of the fresh fruit and vegetables when they were in season.

True, we manage somehow to keep on going on the poor quality refined foods most of us are accustomed to eat, but that is about all. We just keep going, unconsciously depending upon the assistance of "coffee", alcohol and tobacco, barbituates, tranquilizers as "pushers", to maintain the "status quo".

This goes on for ten, twenty, or thirty years, and the machine cracks up. This is due purely and simply to poor quality food — poor in natural nutritive elements . . . not enough minerals, vitamins and enzymes — all elements which have been altered or completely destroyed by milling and other processing and heating, i. e. unnecessary cooking.

Man, if he partakes of live foods, foods teeming with all the nourishment nature insures in them, can live so many more years — years free from the inconvenience of pain, distress and suffering all of us accept as common place, what with so many examples all around us. Rarely do we see an example of a life free from all pain. Yet, man is intended to be as free from it as the lower creatures, and he would be had he not strayed so far from the path of nature, particularly with respect to his food.

This devitation, beginning early in life, brings a train of illness and painful death. Man is intended to come to the end of his days as graciously and painlessly as the animal. That he does not, is his own responsibility.

Few tables, forty years ago, would tolerate a cold lettuce salad. No, it had to be wilted with a hot cream dressing to be palatable.

Nutritional styles, even as dress styles, have a way of changing, depending on various mechanical or technical developments and better transportation. Fortunately, for the American people, the nutritional styles have changed from antiquated cooking toward the more natural, until today we do have better methods of cooking and what is even more important, transportation has improved distribution so that fresh fruits and vegetables are available in almost every home, according to season, and lettuce and tomatoes, and carrots combine to form the salad most common to America, and instead of boiled cabbage which has lost 60 percent of its

calcium by cooking, we have more cold slaw, or green pepper and celery salad to accompany the meal, as often as we want it.

So people are gradually coming to recognize that the life elements of food is in foods which can be eaten without cooking, and hence do not cook them, and more people enjoy them in more salads. But even this trend has not been enough to turn the tide against "hidden hunger", which is an unrecognized factor in most families unless they are especially health conscious.

This trend toward wider use of fruit and vegetable salads has been greatly sharpened and encouraged by the wider introduction of fresh sunripened fruit and vegetable juices for every member of the entire family from Baby all the way to Grandma and Grandpa. More and more people are coming to know the inherent food value of these juices and the need of the body for them.

No greater advance in dietetics has ever been made than in the introduction to the people at large, of the idea, and necessity of fresh fruit and vegetable juices to assure better nutrition. These juices containing the life elements of the fruits and vegetables as they grow, and from which they are extracted while fresh, have ushered in a new era of health awareness or individual health consciousness. The end result has been greater acceptance of personal responsibility of ingesting top quality food in its virginal, non-processed state.

With the availability of precision machines for efficiently extracting all the juice, no family can afford to turn its back on such a reservoir of nutrition.

"Only Nature Can Repair The Machines Which Nature Has Made."

Sir Arthur Keith

CHAPTER, THE FIFTH

WELL BEING AND THE INDIVIDUAL'S ROLE

There is no field of activity requiring personal effort where the rewards are so great as in that of personal health and hygiene. We refer here, particularly and specifically, to exercising due care and considered judgment in the selection and use of food, a most important part of insuring better health and happier days.

All of us are aware of the fact that the material success coming from any chosen profession or field of labor, is dependent upon the application of the person, in other words —

"personal effort" — "by the sweat of thy brow", all progressive educational formulae to the contrary notwithstanding.

But in the field of personal health, all too often have we been influenced to accept the established habits of eating and living, forgetting that each succeeding year these become less natural in most respects. Lo! and behold! we awaken one day to find ourselves caught between two fires, that of poor unnatural food, among other generally poor living habits, and dependence upon therapy of various kinds to remove the affects of poor food and living habits.

The passing years have brought a big change. Our fathers and mothers, grandfathers and grandmothers ate more naturally, and lived more naturally with less conscious attention to food. Food was simple, less processed, less adulterated, less chemicalized, and raised by themselves on small farms or marketed directly to their door. But the chemical age which arrived with the first World War, has changed that even as has mass production and marketing of foods.

Both unnatural living habits and dependence upon therapy to erase the effects of poor eating and living, have come from the failure of the individual to accept personal responsibility for his well being.

First, he feels "why should I be bothered", and second: he has accepted the belief that "when anything goes wrong, all I have to do is take something to restore well being". He forgets that most physicians, no matter what the treatment prescribed, discharge their patients without being obligated or feeling any obligation to admonish them to exercise care in eating or otherwise, for most physicians accept the present mode of living without too much protest, for they are also victims of it even as the average person. Therefore, all go on their way making repeated errors in eating and living.

However, with the advent of the newer era of fruit and vegetable juice food nutrition, there has awakened a consciousness in physicians and lay people alike, so that they have come to a better understanding of the necessity of being more attentive to what they eat and drink.

Of this we can be sure: no man or woman can consistently violate the immutable and implacable laws of Mother Nature, the handmaiden of God, without suffering, because of and by the violations.

People are beginning to recognize this more and more, and make individual efforts to help themselves in various ways, nutritionally and otherwise.

One of the most amazing trends in this direction of self-help nutritionally is evidenced in the acceptance by tens of thousands of people of fresh fruit and fresh vegetable juice as a regular article of food in their daily dietary.

So pronounced has this been that one might refer to it as a mass movement in the direction of better health through self-help, participated in by an ever increasing number of American families who have seen the promise of these sun-ripened or suncooked, (if you please, not raw), foods and have accepted them with an eagerness which has never seen its equal in nutritional history.

Someone has said:

"Experience Is The One Test To Confirm Decision Of Truth And To Refute The Errors Of Mere Authority."

For too many years, the authority of the calorie theory of calculating the value of foods has been accepted, even in the face of startling experiences which proved its errors, as we pointed out in chapter three. And now that theory is slowly but surely being refuted.

Experience has most assuredly confirmed the decision of truth which the pioneers of yore reached, and which drove them on to declare in favor of the inherent food values of suncooked fruits and vegetables and their juices.

Experience in thousands of families priding themselves as owners of a juice extractor, further confirm the value of suncooked vegetable and fruit juice foods, for everyone: the healthy, to remain so; the ailing to assist them nutritionally, in getting back their health.

Unquestionably, remarkable recoveries of patients with chronic disease, as recorded by many reputable practitioners and reported in both the professional and lay health literature of the country, has, of course, encouraged the more general acceptance of sunripened fruit and vegetable juices as a part of the daily food intake.

It is the cumulative experience of these healthier and happier families which has lifted the fresh fruit and vegetable dietary out of the medicine and prescription category of the juice therapists and placed them at the top of the list of daily nutritional wants and needs, which are being satisfied.

Fresh fruit and vegetable juices are foods, and medicine. They are not prescribed in dosages any more than you prescribe for yourself so many pancakes, or sandwiches. You eat what you want and stop. You use of food until satisfied. This applies to fruit and vegetable juices. You will not harm yourself with them. They are needed by everybody — infant, child, adult and oldsters. Neither are the juices comparable

to prepared vitamins and minerals in their dosages to supplement deficient feeding. Juice foods are part and parcel of modern day nutrition and an accepted necessity to our greater well being.

It is by far more economical, both from the standpoint of the body and the pocket book, to "keep well" with raw vegetables and fruits and their efficiently extracted juices, than to allow ourselves to become ill and then expect these same means to get us well.

We are all duty bound to "shoulder" the responsibility of keeping well for the good of self and also the benefit of family.

Keeping well is more the individual's job than the doctors'. When we become ill, the doctor endeavors to find the cause and points the way out of difficulties. But it is up to each one of us to so live as to maintain and preserve our health. Good live food must be considered as one of the most important factors in maintaining dynamic, pulsating health.

Luminaries of stage and screen among them, Gloria Swanson, Robert Cummings, Lucille Ball, Doris Day, and many others have found that raw fruits and vegetables and their juice are important to top performance. Miss Ball was featured in a story entitled "You Can't Get High-Test Performance From Low Grade Food Says Doris Day", by Lydia Lane in the Los Angeles Times in the Sunday edition, November 4, 1956.

But most of all has been the personal experience of the Mrs. Joneses or Mrs. Smiths, who, by accepting some personal responsibility for their well being, and that of their families also, instead of placing it all on their physicians, have discovered in the use of natural fruit and vegetable juices in their daily food intake, a great boon to their health and vitality which has made them enthusiastic.

By word of mouth the fresh, sun-ripened fruit and vegetable juice trend which started as a trickle for better nutrition, has gained momentum developing to flood tide, until now it is rapidly becoming a daily subject of comment in newspapers, periodicals, on television and via radio, as more and more people enter the self help crusade for better halth, and mainly because the common folk have accepted responsibility for themselves and their families by providing fresh vegetable and fruit juice food for them with their meals, at snack time, bed time, or while the family is gathered around the TV set watching its favorite family program.

"Man Whose Natural Drink Is Water Might Easily Substitute For It The Juice of Fruit"
J. L. Nichols, M.D.

CHAPTER, THE SIXTH

THE RIGHT AND WRONG WAY TO USE JUICES

Like a giant flood, the fruit and vegetable juice idea has swept across this country with such speed that it has been difficult to meet the demand for these priceless "Fluid Foods". The prime thought of growers and processors was to meet the demand they saw coming in the newly developing market.

Food processors were quick to recognize a promising field and surveyed it with interest which was followed by putting up more and more juices in cans.

First it was grapefruit juice and pineapple juice, then tomato juice, which became the most popular, and later they began combining juices such as orange and grapefruit, later pineapple and grapefruit. The grape industry saw the trend and began canning grape juice, while vegetable processors followed suit with mixed vegetable juices. Baby food manufacturers followed the same line of thinking in the preparation of fruit and vegetable food for infants.

The demand for juice became stronger and it was all the producers could do to meet it. But meet it they did in the best way they knwe how; that of supplying more and more combinations.

Like every other upsurge of an idea, some of the more basic factors of assuring greatest possible effects, in this case, the vital nutritional values locked in raw fruits and vegetables direct from the orchard, fields and gardens, were lost sight of in the rush of this changing scene in American nutrition. Few, outside those served by the pioneer raw fruit and juice therapists, recognized these factors.

Here nutritionists were opening up a vast new food front which was needed, of course, but as to what would be the best form for using these juices appears not to have troubled the processors. They were concerned with getting juices to the public in a ready form. Canned, processed, pre-heated juice was the answer.

It was evident to the juice therapists that a way had to be found for more efficiently extracting the "vitamin-mineral-enzyme rich" fluid nourishment from raw fruits and vegetables to more adequately serve their growing patronage, and they set about to make this possible. Engineers were consulted, and the first juicers made their appearance, so the processor of canned juices began to have competition.

But unfortunately, with few exceptions, the juice therapists in their eagerness to emphasize juices for ailing people and provide machines for an ever growing clientelle they served, not only failed to herald juices for all and sundry, but gave no instruction for the best manner in which to use them, therapeutically or as a food.

As more juice machines occupied more homes, the demand for raw fruit and raw vegetable juices grew until people began asking for them in public places, so that they became available to a greater number of people. Juice bars sprang up, especially in those towns boasting of health food stores which had quickly cooperated with the idea of freshly extracted fruit and vegetable juices for health.

But with all this concern about juice, little was said except by a small minority, about the manner in which the juices should be used, except to consume them in the quantity desired.

Some few, probably instead of drinking the juice did sip it which was comparable to the "coffee or tea sipping" habit of so many Americans, but with much more benefit.

But by far, the great majority took their juices at a quick sitting of several gulps which, of course, is a less tasteful and hence less beneficial experience, because the first process of digestion has been avoided, and the "taste" experience has been lost.

All juices, to be of value, must be tasted, hence sipped slowly, or rolled around in the mouth, which assures the juices of mouth acting on the sugars at least. In short, for greatest "taste" enjoyment and for greatest beneficial results, the juice food is to be sipped as you would any other delicious fluid food, and not gulped.

It is not a task at all to do this. In fact, a most pleasurable "taste treat" is in store for anyone who will take the time to use the simple process of "tasting" juice food instead of drinking it. It is not water but rather nutrients in solution.

Taste it. The flavor of the juice excites the taste buds and causes the salivary glands to give fully of their valuable juices, which begin the actual digestion of food, and prepares it for the stomach. Sipping fresh fruit or vegetable juice is as inconspicuous as sipping coffee or tea. It will create no social barrier or affront to sip your juice. Believe that, and you will enjoy it much more.

For those who are ill or have digestive trouble, particularly, or for those who cannot control themselves, or for those who are self-confessed "very rapid eaters", it is particularly valuable as a delaying action, which compels using sun

ripened fruit and vegetable juices slowly—as they should be used by all for best results.

An ideal way to use juices, if possible to do so, is to have them ten or fifteen minutes before a meal, instead of a glass of water or a drink of milk. The juice will have been on the way to digestion before you have taken other foods.

But perhaps the most accepted way for many busy people is to include vegetable juices with their meals, instead of water, or coffee, or any other beverage. This promotes mixing them with their food. For instance, carrot, or beet, or celery, or cucumber juice, or a mixture of any two of them according to taste will combine nicely with any of the average mixed meals of the American table. The juices are not to be used as water or coffee to wash down semi-chewed meat, or bread, or vegetables, but to become a part of the food materials being masticated, before swallowing them.

By bearing this thought in mind in using juice, the taste buds will respond readily to a new taste "thrill", thereby discharging their vital digestive and conditioning factors, thus preparing the "juice food" for entrance into the stomach to undergo further digestion.

And how long does this mouth digestion take? Not really long at all; and it is a pleasure, which once experienced you will not want to miss. Simply taste the juice in the mouth, enjoy it, as it blends with the mouth juices. You will be delighted.

Taste is the controlling factor in determing the intake of juices as it is in other foods where natural desire has been allowed to assert itself.

To say that one should take a pint or a quart of this or that juice daily, is arbitrary. Actually the intake should be determined by desire based on taste, and the amount over all of juice ingestion in general health need not exceed, 6 to 8 ounces or one pint at a time.

Anyone who uses juices following these suggestions, will find not only greater joy in their use, but will be greatly pleased with results. Vegetable and fruit juices must be accepted and tasted as one accepts and tastes other food, i. e. to satisfy hunger, which is a pleasurable experience, and not merely thirst, as a drink of water.

Vegetable and fruit juices, the real essence of Nature's bounty of field, orchard and garden are not a medicine, as such, nor are they merely water, as most nutritionists unfortunately erroneously refer to them, but rather they are a juice food, i. e., nutrients in solution, a nutritional treat to be enjoyed by the whole family. They are an essential part of the modern man's daily nutritional require-

ment, and properly used preserve health, thereby preventing illness.

"It is hardly possible to over-emphasize the importance of taking a portion of the food in uncooked form. The primitive ancestors of the human race subsisted wholly upon the natural products of the forest, as do a few wild tribes even at the present time".

Dr. John Harvey Kellogg,
The New Dietetics

"Health Is of More Worth Than Learning"
Thomas Jefferson

CHAPTER, THE SEVENTH

JUST WHAT DO FRESH FRUIT AND VEGETABLE JUICES CONTAIN WHICH ARE SO NECESSARY TO THE BODY

What are the mystical factors which give power to fresh fruit and vegetable juices? Where do they come from? How are they utilized?

There are only partial answers to these provoking questions. There is more unknown about the extensive nutritional value of fresh fruit and vegetable juices than is known. But what is already known is of such importance nutritionally that a new era of nutrition has evolved. It goes without saying that man will never know all there is to know about the value of the essences of fresh fruits and vegetables, and their juices, for it is not given to man to duplicate the creative process of seeding, growth and fruitition, in the chemical laboratory.

Truly, we have synthetic products with compounds or components identical to the natural products, so far as it is possible to chemically measure these compounds and components of the natural products, but there is so much that is not known of the natural products, in addition to those intrinsic vital "somethings", which researchers in natural food try to isolate in the laboratories.

Man has not as yet been able, (nor it is it at all likely that he ever will be), to duplicate the marvellous "seeing, growth and fruitition life process", of Mother Nature. Synthesis cannot produce life. Only Nature can produce life through the electro-magnetic influence of her combined unique forces. She does this in producing the food she gives us. The foods she provides for us produce the vital force we call life, the vital principle of the human body.

From the time the tiny seed is embedded in the ground and is gently caressed by the moisture and warmth of the

soil, until it bursts open magically and pushes the tendril of the germ through Mother Earth to be bathed in attending sunshine, warm zephrs, alternating with cooling blasts, and the morning dew, through the growing season, to full fruition and finally the time of harvest, the wonderous creative process of Nature is at work without any help from man except to remove obstructions so that Nature can do her work unhampered. The good agronomist, horticulturalist, or agriculturist, or dirt farmer, or gardener, if you please, is that one who lets Nature do most of the work, and sets about only to remove obstructions from ideal natural conditions of growth and fruition.

Likewise the fully developed seed of the fruit which grows into a tree to produce more fruit by the process of blossom and pollination, partakes of all Mother Nature's wonderous attributes, as the sun, air, rain and alternate coolness and warmth, and the dew, to produce both vigor and mellowness which gives forth fruit, each of its own kind in its own season for food.

It is these processes stemming from the eternal soil, in combination with the other relentlessly life giving forces of Nature, which develop the elementary food factors, and transforms them, through the miracle of photogenesis, into vital raw fruits and vegetables: these are unsurpassed in nutritional value and flavor, made possible only in the complex laboratory of Mother Nature, which produces the natural vitally dynamic foods of garden, field and orchard, to sustain life. The eternal vital forces locked in the millions of cells of both fresh fruits and vegetables, which science, for want of a better descriptive name, calls vitamins and minerals, can never be duplicated in a man-made chemical laboratory. If your body is to have these life sustaining elements, they must come from the raw fruit and raw vegetables and their juices, as Nature sun cooks them in her own kitchen. You will observe, we said, raw fruits and raw vegetables (suncooked) and raw fruit and vegetable juices (suncooked) — we did not use the conjunction "or". There is a very good reason. They can be had in no way, other than from natural sun enriched live foods.

Then why not more fruit and vegetable salads—we are asked? Fine. However, there are two prominent "buts", which we must take into consideration.

1. The average person does not take time to use enough of fresh fruit or vegetables in their hurried living, and even if he did, the source of supply prohibits him taking enough to satisfy mineral, vitamin and enzyme needs; therefore supplementing the intake of sun-

cooked food by the proper use of the fresh juices is a form of health insurance which is most satisfying, pleasurable and economical, and absolutely necessary in our civilized life.

2. Many of our fruits and vegetables come from better soil than others and in such instance it is a case of quantity substituting for quality. Besides most people care for, or will eat, only so much salad and no more, but juices of fresh fruits and vegetables, they will consume both separately and as a supplement to salad dressing, and as an addition to their meals instead of milk, water, coffee or tea.

On the other hand, we must bear in mind that the mere fact soil is capable of growing and maturing fruits and vegetables, recommends these products to you for use. If the soil was totally lacking, it would produce nothing. The wise farmer, orchardist or gardner aims to do the best he knows how, for he is as much interested in having good crops as is the consumer to buy and use the fruits of his labors.

We all need the nutritive value these provide; the vitamins, the minerals, the enzymes, the mild acids, and the wonderful sugars. Of these two latter elements, Dr. George Drews wrote in his book, "Unfired Food and Tropotheray", in 1912:

"The Water of fruits and vegetables, that is in fruit and vegetable juice, is laden to the utmost with organic salts and sugars."

Many of our modern nutritionists have not yet recognized the great value and significance of these highly important sugars in our economy.

According to the Bureau of Home Economics of the United States Department of Agriculture, the relative carbohydrate content ranges from three percent in the more succulent vegetables as celery, lettuce, tomatoes to twelve percent in apples, etc.

There is enough of the carbohydrates or energy producing elements in fruits and vegetables if we would wish to live on these alone, (but we are not suggesting this), as witness the peoples who do with no addition other than nuts, or cereals, or legumes, all belonging to the vegetable family.

I want my readers to have a full appreciation of all the nourishing elements fresh fruit and vegetables and fruit and vegetable juices contain.

It has been said so often that fruits and vegetables are mostly water. This is wrong. They are composed of liquid nourishment — food in solution — food in the form of sun enriched liquid.

The invaluable minerals and vitamins contained in juices of fresh fruit and vegetables vary with the soil on which the vegetables are planted and grown, or the soil of the orchards growing the trees which bear the fruit itself. This is readily discernible in the taste. For instance some carrots have a much sweeter taste than others. Some onions are heavier in oil than others.

The ideal situation for the best fruits and vegetables and their juices is of course, good seed, good soil, which means good fruitition and hence good harvest and good nourishment for the body.

Few of us have the rare privilege and good fortune to see our food through from preparing the ground, through seeding, growth and harvest. Gone are the thousands of small farms, and modern cliff dwellers, in towering apartments, or homes without enough land to till for home use, depend upon the production of mass farming with all of their shortcomings of heavy spraying. We have become victims of the folly of too much civilization and therefore, need to mend our ways if we are to survive.

For those who have to depend upon interstate shipments from the larger farms where spraying is more methodical and intense, we have suggested means of coping with it elsewhere in this volume.

A return to small farms will be a saving influence in more ways than the nutrition of our people, but in the meantime at least, we must exercise care and demand foods as free from sprays as mass production will permit, and whenever possible, buy from the merchant who gets his fruits and vegetables nearby. But be sure, in any event, to get a liberal supply of fresh fruits and vegetables regularly for your family, for both salads and juices.

"Accuse Not Nature, She Hath done her part!
Do thou but thine!"
John Milton, (Paradise Lost)

"He Who Has Health Has Hope,
And He Who Has Hope Has Everything"
Arab Proverb

CHAPTER, THE EIGHTH

PROTEIN! NOT BY MEAT, MILK, CHEESE AND EGGS ALONE!

Protein is held up to us on every side as the power behind longevity, and strength of body while we are living. We are

told that all we need is to replenish wear and tear. This is so, to a degree only. But simply because it is so, it does not follow that this is reason that we should indulge more than we need, or take it from a restricted source.

Nutritional research is beginning to prove that the commonly accepted amount and necessary source of protein has been exaggerated and erroneously stated. Experience had long since proved it in the raw in open Nature, in those countries where animal protein was wanting and where fruits, vegetables and some grains formed the bulk of the diet of the people.

It has been found that even the minimum daily protein requirement of Chittenden can be materially lessened without any harm.

Therefore, high protein diets have been more or less the vogue without actually referring to the protein; and meat and/or by the by-products of meat have always been overemphasized as protein factor food.

Few have been the doctors in the last 100 years who have not recommended what they call plenty of good wholesome nutritious food. Good wholesome nutritious foods has meant an abundance of meat, milk, butter, cheese, eggs, all animal foods predominating in the protein factor.

As time went on and the protein factor became more discernible in action, what with the supposedly superiority of the amino acids derived from animal sources as compared to those from fruit, vegetable, grain, and nut sources, both the nutritionists and physicians became over-zealous in their encouragement of heavy protein indulgence especially of animal origin.

This became such an "idea fixe" among the profession that it and the public they served, came to accept only animal foods of predominately protein composition sources, (a grave error of the profession), forgetting for the moment that practically all foods have some protein, and that we take into our bodies varying amounts of protein along with other necessary food factors in a daily dietary which may be almost completely devoid of meat, or milk, or cheese, or butter, or eggs.

There were leading nutritionists who did not hesitate to recognize the value of protein of vegetable origin, among them Dr. Sherman, and Chittenden, and also Otto Carque, famed nutritionist, who stated in his work, "Rational Diet", and advanced treatise, published in 1923:

> **"The protein in green vegetables is small comparatively, but the richer and younger leaves the richer they are in this food principle".**

Many American nutritionists for a long time have considered protein in vegetable sources inadequate without realizing that all animal protein has its source in the vegetable kingdom. The cow, or sheep, or chicken eats of vegetation, or grains, and produces high protein, milk, cheese and steaks therefrom. We slaughter the animal or fowl, cook the meat, and partake of second-hand vegetation which has nothing to recommend it, except that it has been transmitted through an animal body, if indeed, that can be considered a recommendation. This seems a most illogical and round about way of assuring protein when we could have obtained it for ourselves with much less trouble and expense, from fruits, vegetables, grains, etc. in the first place.

Meatless fare, which is looked upon with dignity and respect in England, France, Italy, Germany, and other countries in Europe, but held up to ridicule in America by press, radio, and television, with few exceptions, has been proved preeminently adequate to meet the needs of the human body time and again by outstanding research workers. The laboratory of Nature provides enough evidence of the value of vegetation as a direct food.

One only has to study the habits of the animals to observe the rather extraordinary fallaciousness of the belief that man has to have animal protein in order to grow, mature, remain well and strong and reproduce.

Extremes, sometimes, it seems, have a way of proving a point.

The "Protein Bugaboo" has been a favorite whipping boy for those who would blame all our physical trouble upon some single factor, as protein deficiency rather than a combination of inadequacies and inefficiencies in our habits of living.

The merits of a high protein dietary have been highly publicized both in professional journals and via every media of communication. The meat packers have had a lucrative holiday, emphasizing the great value of the high protein, etc., not only in health but also in ailments and the source recommended, has been invariably the animal, of course, as meat, milk, eggs, and cheese.

Those of our research scientists who have made this recommendation, and they are legion, failed to take into consideration that those countries and people having the lowest animal protein intake, (with the exception of the natives of the far North who eat most of their meat either raw, or sundried, which assures high enzyme intake, are free from heart trouble and circulatory disorders, including high blood pressure, cancer, diabetes and other diseases so common to better fed population of so-called higher civilization.

Cognizant of this discrepancy, some scientists have gone further by investigating people who live abstemiously in the midst of civilization, and the results of these studies were startling.

They investigated vegetarians, lacto-ovo-vegetarians, and even the ultra restrictive "Vegans". Vegetarians are those who proscribe all flesh foods and foods of animal origin, as cheese, milk, butter and eggs. The lacto-ovo-vegetarians proscribe only meat, and the Vegans live exclusively on fruit and vegetables.

The studies reported in two sections appeared in "The Journal of Clinical Nutrition, March-April, 1954, Volume 2, No. 2, under the heading:

Nutritional Studies of Vegetarians,
Nutritional Physical and Laboratory Studies,
By Mervyn G. Hardine, M.D.
Dept. of Nutrition, Harvard Medical School*
and Frederick J. Stare, M.D., M.D.,
School of Medical Evangelists,
Loma Linda, California

Here are the amazing findings, which confirm the fact evidenced by the life eating habits of millions of people, that proteins from non-flesh foods are equal to any of those from the animal source.

"The non-Vegetarian adolescents consumed significantly more protein than did the lacto-ovo-vegetarian adolescents; however, this larger protein intake was not reflected in greater growth as measured by heighth."
"No evidence was obtained to indicate that a lacto-ovo-vegetarian diet failed to provide the dietary standards recommended for adequate nutrition for an expectant mother."
"It is of interest that, despite the lower protein intakes of the vegetarian groups, there was no lowering of the serum protein values even among the "pure" vegetarian groups who had utilized a relatively lower all-plant diet, an average of 9 to 16 years."
"The total protein, albumin and globulin values, and the haematological findings for all the vegetarian and non-vegetarian groups were not statistically different."

Under the heading, "Dietary Findings" we read these very significant statements. Observe particularly the reference to fruit and vegetable juices.

*From the department of Nutrition, Harvard School of Public Health, Boston. The data presented in this paper represents partial fulfillment by (H.G.H.) of the requirements for the degree of Doctor of Public Health at the Harvard School of Public Health.

"In general the lacto-ovo-vegetarian pattern of eating closely parallels the eating habits of the average American except for the exclusion of meat."

"PERHAPS AN OUTSTANDING CHARACTERISTIC OF THE GROUP WAS THE CONSUMPTION OF LARGE QUANTITIES OF FRUIT AND VEGETABLE JUICES."

In the same issue of the Journal of Clinical Nutrition, under Section 2 of the study, "Dietary and Serum Levels of Cholosterol," we find these equally revealing statements supporting the superiority of the all vegetable and fruit dietary regime:

"The pure vegetarians, because of exclusion of all foods of animal origin have essentially cholosterol free diets."

"No hypersensitive subjects were observed among the pure vegetarians; altho cases are encountered with equal frequency among the lacto-ovo-vegetarians and non-vegetarians."

And finally it is stated:

"In the studies of Jaffa covering a family of fruitarians, (Vegans) in California, the family was found to be in good health."

Since nutritionists and physicians elect to figure from animals to humans in various nutritional tests and also the reaction of humans to anti-biotics, etc. it is assumed they will have no objections to figuring from animal to man insofar as food in relationship to strength and well being is concerned.

The Elephant, perhaps the strongest of the animal kingdom, is a vegetarian, and likewise also is the Gorilla and Orang Utang.

But let us take more familiar animals, those man has used for his progress. The horse, one of man's best friends, who carried practically all of his burdens before the advent of machines, lives on grains and grass.

And the lowly cow whose provender of milk has reared many babies whose mothers could not feed them, or in more modern days elected to depend upon the cow to feed her baby rather than her God-given natural function of breast feeding, is another example.

Cows milk has by choice become one of man's staple foods and yet, it is but transformed vegetation — It would seem more practical and more economical to partake of the vegetables or grains of gardens or fields as they are grown rather than to feed them to a cow and wait for the coming of milk for the newborn and when the calf is born, weaning the calf and then by constant stimulation of the mammary glands, cause the animal to continuously produce milk. But mankind is seldom so direct.

Milk, fundamentally would repeat, is nothing more or less than grass, fodder and grains, vegetation transformed in the body of the animal through its great chemical laboratory. The same phenomena takes place in the human family to provide the beneficient lacteal food which courses into the mother's breast to nurse her infant.

With soil erosion taking place at such a rapid rate — top soil floating away to the sea in streams and lost to the four winds via sand storms and such, man is gradually being forced into an agricultural dead end street, but unless he is decimated by chemical fertilization, and sprays, in the meantime, his ingenuity will lead him to solve the problem by using the soil to grow more and more fruits and vegetables and more grains and to depend upon these for food instead of eating them second hand in the form of steaks, chops, hamburgers and hot dogs, or milk.

The same acreage used to raise cattle, turned into vegetables, fruits and grains can feed many times more people than can the cows raised thereon.

This has been proven many times. "Recovery of Culture by Professor Henry Bailey Stevens, one of the most significant books of all time gives a vivid picture of the decline of man because he failed his heritage," the soil!

The Hunzas of the Himalayas have demonstrated this practical theory through centuries of the simplest natural non-animal fare except for meat on rare festive occasions — and they maintain youth into old age and die graciously instead of from complicated painful lingering diseases as we do.

They have found the secret, in that the best protein is in the grains, the vegetables and the fruits. Americans are beginning to recognize this also and are turning to more whole wheat, more vegetable and fruit salads and more sun-cooked raw vegetable and fruit juices.

All of us manage to get more of the cooked foods than are good for us. Few of us, unless previously conditioned by the sad experience of illness and relief through adjusted nutrition, use enough fruits and vegetables as Nature prepares them for us in her own kitchen.

Scarcely any physician or nutritionist today will deny that cooking, even most carefully, makes marked changes in the protective elements of food which render them less valuable as body builders.

Since these two failures are quite accepted, it then behooves us to see that more of the natural wholesome raw fruits and vegetables, and especially the juices of these, form a regular daily part of our food, and therefore it is to the health advantage of the entire family, for the head of the household to make them available.

The modern nutrition conscious home includes a satisfactory means of extracting juice efficiently and economically. It is more essential to the family's health and well being, than the gas range or electric stove, for it is the juice of raw fruits and vegetables which help to renew life force quickly and pleasantly, tastefully and economically.

"Natural Forces Within Us Are The True Healers of Disease."
Hippocrates. Aphorisms, 400 B.C.

CHAPTER, THE NINTH

RENEWING LIFE WITH LIVE FOODS — THE FIRST LAWS OF NUTRITION WHAT COOKING DOES TO OUR FOODS!

There is a unique process which goes on constantly in the human body from the moment the first breath is taken until we have breathed our last. This process is the sum total of the phenomenal life function which transforms foods into usable substances and then uses them in the body to repair tissues, provide energy, and dispose of waste. In short sustain life.

Metabolism is the name of this intricate and wondrous process; it is made up of two other interrelated processes with high sounding names, each a part of the whole. One is anabolism, or the building up or synthetizing process and katabolism the breaking down or disassimilating process. The sum total of the two is the metabolism of which we hear more today than in years gone by.

In other words, this great over all systemic project takes care of using nutritive elements we supply to the body in the form of food, combining them with oxygen from the air we breathe, and water we drink, to produce blood, tissues, energy and tone, and also dispose of the cellular waste resulting from the wear and tear in our daily life.

So extraordinary and so intricate is this process, and so automatic does it work that this preserving miracle of life is carried on practically, without our knowledge, or help, except for some few small responsibilities. But the small part we, as individuals, voluntarily play in this process is so very great in proportion to the over-all job that, unless we do our part, all manner of difficulties result, and we pay the penalty of pain, decline and illness.

The condition of the blood and the quality of the tissues; their tone and elasticity physiologists remind us, are dependent upon the quality of the food we eat. We would add that contact with and use of all other natural forces as air, rest, relaxation, sleep, physical activity and a reasonably good attitude of mind toward life, are vitally important also. But the keystone, the star performer in this drama we call life, is good wholesome natural food, without which the other actors cannot continue to function, except with the attending difficulties, of pain, distress and eventually serious disorders.

Primarily, if we are to have good nutrition, we must have good wholesome, natural, live foods, foods which pulsate with animated substances. Foods rich in the live elements appear to be the keystone in this foundational scheme to insure the best metabolism which in turn promotes and assures the highest degree of health and happiness.

The first natural law of nutrition is this: **To obtain foods as close to their source in Nature as possible, in their live, unaltered state.** The second law: To use natural sun ripened foods as close to the way Nature prepares them as possible. The less cooking the better. Fresh, raw, uncooked foods, more correctly, suncooked or sun prepared foods, are the most nutritious and hence the most beneficial.

The third law: To always thoroughly chew or masticate the natural food ingested at each meal, each day, each week. We need to take time to chew or the best of foods loses its value. The wisdom of the great Provider insured pleasure from eating by providing the sense of "Taste". All natural foods, intended to be used in their natural state, have a distinctively good flavor. Even the most careful cooking destroys these flavors in these natural foods, while improving the flavor of those which man, through horticulture, has developed, but which were never found in the original provisions of Nature.

The fourth law: Is keep the combinations of food to a minimum. In other words, have fewer different kinds of foods at any given meal. A good rule to follow is to use together or in combination, those foods which taste good together, as salads, whether fruit, vegetable, or mixed fruit juices or mixed vegetable juices. It is the addition of salt which make it possible for people to accept many of the common complicated combinations of food as for instance, the very American one of meat, potatoes, bread and gravy.

Violation of the first law of nutrition takes place in the kitchen. So few doctors in the past have realized this and sad to state, despite the accumulation of data confirming the errors of the kitchen, so many even today fail to recognize it.

One of the profession who did speak out vigorously against cooking, but whose voice was heard by but a few, who until now, was a forgotten crusader, is Julian P. Thomas, M.D. It took courage to denounce cooked food and extol other foods as he did in his carefully prepared work. "The Advantages of Raw Food," published in 1903. Dr. Thomas summed up the composition of food and what happens to it when it is cooked rather neatly in the two paragraphs we quote below:

> **"Perhaps you would like to know how cooking changes natural articles of food into poisonous masses. To explain this to you, I will have to give you some idea of the composition of ordinary food. All food contains more or less of living cells, the more cells the more nutritious the article of food. If high degrees of heat are applied to these cells they are coagulated, just the same as the white of an egg is coagulated when it is boiled. The more thorough the cooking, the more thorough the coagulation. Everyone knows that if an egg is cooked long enough it not only loses its nutritive quality, but is sure to cause indigestion. No one would dare to try to exist upon thoroughly cooked eggs as an exclusive diet. Not only is the value of the cells destroyed, but the ash which remains after cooking is actually poisonous to the human system. Every article of food, no matter what it may be, contains these living cells.**
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> * * * * * *
>
> **"The living cell portion of all foods is destroyed by high degrees of heat, the starchy matter is made more soluble than it should be; fatty matter becomes a local irritant; the fibrous matter is changed from its natural state to a poison, the inorganic elements of foods are reduced from an organic combination to an inorganic condition. From a practical stand point it is very much better to take the food as Nature created it, because there is an organ in the body to handle every element found in food. This is not at all true of cooked food. If a human being requires a large amount of food he can take it in its natural condition without any detrimental effect. If he dares to take a large quantity of cooked food, it is sure to have a disastrous effect.**

Among the most important foods which fit best into the category of naturalness are the fresh fruits and vegetables and their essence or juices, of which none of us use nearly enough for various reasons.

The answer to the depleted nutrition of America, which lacks in consumption of fruits and vegetables, is in not only

increasing these foods, but determining to use their life blood as it were, the essence of these marvelous foods found in the billions of cells in the form of juice, a genuine natural food.

This life substance or essence can be assured by consuming fruit and vegetable juices, in addition to the meager salads we find on most American tables; and also as a dressing to the salads. To make the salads, whether of fruit or vegetable, tastier, be sure to have enough juice left over from the family needs to add to your favorite salad dressing, fruit and vegetable respectively.

All people, adult as well as children, would do well to dedicate all snack periods to the use of juices, especially for those between meal snacks and to fill the need for that extra something for the children when they come home from school, or those sessions around TV after the children have gone to bed.

Mothers will be insuring better health of the children by supplying freshly expressed fruit or vegetable juices. A glass of carrot or celery juice, or cabbage, or either mixed half and half with cucumber juice when they are in season; or a glass of apple, or pear, or plum, or cantaloupe, or watermelon juice, will make a big difference in Jimmy, or Jane's future health.

Instead of serving milk or water at meals, it is more economical in every way to serve six ounce glasses of fresh vegetable juices, especially carrot or tomato, or cabbage or celery, and the extra energy these supply is tremendous.

Make it a point to have a supply of chilled fresh fruit or vegetable juices in the refrigerator for use by the entire family; especially for those between meal snacks and to fill the need for that extra something when the children come home from school, or those sessions around TV after the children have gone to bed. It is the cheapest kind of health insurance for the entire family as it assures maintaining the nutritional balance in our lopsided American dietary.

"We Live Not Upon What We Eat
But What We Digest."

Abernethy

CHAPTER, THE TENTH

VITAMIN, MINERAL AND ENZYME POOR FOODS ARE STARVING AMERICANS

Few foods today, whether purchased at the corner grocery, the super-market, or those old American establish-

ments, the Grand Union or The Atlantic and Pacific, have escaped the devitalizing corruptive hand of man who in his eagerness to over-simplify and appeal to artificial or acquired tastes, has in one way or another managed to destroy nutritive values by doctoring or processing practically all foods long before the groceryman receives them; and so we are doomed from the start unless we make it a habit to read "labels" on packaged foods and try to avoid the chemicals and preservatives in our foods wherever possible.

The very safest foods, any of the stores sell, irrespective of size or location, are the fresh fruits and vegetables. Too little of the food dollar of the consumer goes on fruits and vegetables. Dr. Sherman of Columbia has stated that if we could all consume three pounds of vegetables each day the nutritional health would greatly improve. Actually the average person consumes less than one pound. So we are eating more than two-thirds less of these foods than we need. The fruit and vegetable department does proportionately less business than any other department in the store.

If there is any doubt in your mind about this, watch the patrons in a store as they shop and observe the very small amount of fruits and vegetables purchased in proportion to the total quantity of food bought, and yet dollar for dollar, the quantity of health provided in the fresh fruits and vegetables, legumes and nuts is as ten to one, and more.

I long ago wrote in one of my newspaper columns that the health of the family could be reasonably well judged by the amount of money invested in fresh fruits, vegetables, nuts and grains compared with the amount spent on processed meats, eggs, butter, cheese, milk, and packaged goods.

True, the other foods sustain life and function after a fashion by providing fuel power, but they do not impart an adequate amount of the life giving vitamins and minerals, which the fresh fruits and vegetables and other unaltered foods afford, nor do they provide the enzymes (the life perpetuating element) which are even more vulnerable to heat than vitamins and minerals, and in all likelihood will also be to chemicals which are so freely used in preparing and packing most of our foods.

Suppose we examine several of the items which you purchase at your grocer, aside from fresh fruit and vegetables.

The milk, cream, butter and cheese have all been subjected to pasteurization, i. e. cooked to a temperature of 145 to 160° heat, depending upon the method. This much heat destroys all enzymes, not to mention practically destroying all of some minerals and vitamins and altering others considerably. Most meats have been treated or preserved in one

way or another. First — on the hoof, by that is meant while the animals are alive, through the chemicalized food and the shots given to them, and second; when the animals are killed, and become the meat of commerce.

The use of hormones as stilbestrol, and auromycan, among other treatment is quite common in the poultry industry. Unfortunately the chemical fixing of foods has enveloped us so rapidly that Federal laws have not been able to keep up with it.

Even where we have existing laws, they are arbitrary to the extent that a standard or toleration allowance of this chemical or that is stated, but no one guarantees that the cumulative effect of the amount the processor is allowed to use in the food, will not have harmful effects on the body over a period of time. The safest meat for those who want meat is Eastern raised and slaughtered. Actually what is needed is a return to the original pure food law fathered by the late Dr. Harvey Wiley, which disallowed any adulteration or additive. We need a law which forbids the use of all chemicals and adulteratives in foods. Surely we have ways and means, what with rapid transportation, excellent refrigeration, etc. to insure fresh wholesome foods for the consumer, without processors resorting to the use of preservatives.

With our improved facilities of transportation there is positively no excuse for chemicals or additives, or preservatives in our foods. They add nothing to foods, and alter important nutritive factors.

Poultry suffers much in the same manner as meat. The eggs we eat, with few exceptions, are the product of chickens fed chemically enriched foods, and heavily treated antibiotically. Often the chickens have no contact with Mother Earth, and hence no scratching, no grass.

It has been my privilege to observe the effects of food on both animals and fowl. Organized mineral rich food which can be assimilated, makes all the difference in the world in the texture, firmness of meat, and too, organized minerals act to produce eggs with harder shells, and healthy yellow yolks.

A gentleman poultry raiser who has always questioned the advisability of synthetized foods and who has consistently refused to accept the State's recommendation, both on this and also the use of injections as a protective means, conducts many experiments, some of which I have been called in to observe. The superior results of natural organized feeding as compared to those fed on synthetically doctored food is amazing.

Recently he was conducting an experiment, and purchased feed which he assumed to be free of antibiotics for the group. The experiment lagged. Two of the fowls died unexpectedly. He checked on the food. Apparently the anti-biotics in the food counteracted the experiment.

I made inquiry as to the present use of anti-biotics on chicken feed. The label which I should like to produce if space permitted would amaze you.

All canned food has undergone the necessary processing to preserve it. Even so, it is probably the least harmful so far as the presence of added chemicals is concerned. In most cases the addition of salt and/or the application of heat acts sufficiently as a preservative. The better brands of canned food rely on vacuum packing, use enameline lined cans, and have doubtless adjusted cooking or preparation to a fine art; in some of the canned foods there is still added a preservative however, but the Federal law demands that cans containing such be so labelled, so you are protected in this instance.

The fact remains however, that all canned foods have suffered varying degrees of mineral and vitamin loss, and the vital life processes which assist in the function of living, the enzymes have been completely destroyed, wherever heat for cooking has exceeded 110°.

This does not mean that all food nutrients have been sacrificed, but it does strongly suggest that the live elements of the food which have been lost, need to be replaced or supplemented by greater amounts of live foods from the fresh fruit and vegetable section of the store. But this is, unfortunately for the family, not done.

All but a few of the brand name breakfast foods are heavily sweetened with sugar fixed with glycerin and have been subjected to high temperature cooking, blasting or baking, and some have been chemically enriched in one way or another. Ralston and Wheatena, or other whole or cracked grains are the exception. Shredded Wheat has naturally lost some by processing, but not as much as other processes. Anyone can confirm this by reading the labels on the carton of their favorite breakfast food. Manufacturers must eventually realize that artificial enrichment is a confession of an inferior product.

Practically all the foods on the grocery shelves, with the exception of the neat cellophane wrapped packages of beans, peas, lentils, pop corn, and nuts have been subjected to enough heat, at least to kill the enzyme or "live element of the food", along with altering vitamin and mineral content. The purpose of killing this "live" factor is so that the food will not spoil.

Even some of the legumes have been "degerminated", i. e. the life reproductive element has been killed to ensure keeping longer. This is not hard to test. Plant a few of the beans or lentils you buy in the store, or try to sprout them by dampening them. If they do not grow or sprout they have been degerminated, and then no longer supply all the body's enzyme needs. Do not serve them to your family.

While the Federal Food and Drug laws require that the ingredients and adulteration of all packaged food be indicated on the label containing the package of food, which is of some help if the housewife reads them and is guided by them; however, the label is usually rather inconspicuous and has to be looked for. There is no law as yet, which provides the consumer with the information that peas, beans or lentils have been degerminated, or that wheat, corn, barley or any other grain has been sprayed. We do have large millers labelling whole wheat flour according to the preservative used. It is usually marked "bromated".

Suppose we now examine a few more commonly used items of the grocery store, as soft drinks, ice cream and candy, which are likewise heavily burdened with highly irritating demineralized sugar, artificial color and flavor, the latter referred to as certified. "Certified", applied to either flavoring or coloring does not mean it is harmless. It has merely been certified as to allowance. Chemicals in the form of acids and preservatives are also added. There is no guarantee of quality or goodness. Candies are loaded with demineralized white sugar or glucose, also they too are usually artificially colored and flavored. The same applies to breakfast foods, cookies, cakes, etc.

Breads, with the exception of 100% whole wheat stone ground, is scarcely recognizable compared to the loaf of bread produced 25 years ago. There is less butter, milk, and other nutritious ingredients, and more in the way of fillers and conditioners to enhance softness, besides the addition of a preservative to retain freshness and prevent mold.

The enrichment statute for bread came into being 18 years ago at the First National Nutritional Conference For Defense, and so far as we know the last, called by the late Paul V. McNutt, Head of the Social Security Administration. While it was generally agreed by the members of the Conference that 100% whole wheat bread was best, the excuse was given that people would not eat dark bread, having become accustomed to white. The real reason for rejection of whole wheat bread is to be found in the fact, that the big millers, find it less troublesome to grind and ship white flour, which, devoid of the germ, or the life element will not

spoil as will whole wheat flour, so enrichment became the law of the land.

The law demands that each bakery add a special wafer or tablet to each 100 pound mix of dough. This tablet contains the chemicals, niacin, riboflavin and thiamin, with the addition of iron. Medical literature is beginning to record the observations of men who have questioned these additions to our so-called staff of life.

There are those who believe that the cumulative effect of this compulsory enrichment of bread with these chemicals has some bearing on the increased incidence of nervous disorders in recent years.

That you may know how man contrives to adulterate food and then offers invalid reasons for so doing, we quote the definition of enrichment of bread directly from the package containing the enrichment wafers each baker is required to use:

"What is enrichment? Enrichment is the process which restores certain vitamin and mineral values to white bread (or white flour) that have been **unavoidably** lost in the milling process."

Note the word 'unavoidably'. Actually they are deliberately thrown away, or discarded for stock feed for economical reasons.

These chemicals used for enrichment are supposed to replace the natural minerals lost when wheat is milled to make white flour; but being chemicals, they cannot possibly replace the life elements destroyed by milling, for as chemicals, they do not contain the life element. Only fresh fruit, vegetables, and their juices, nuts, whole grains, in fact any living food, yes, even raw meat contains the enzymes.

We buy a pound of apricots or prunes or raisins in the belief we are helping the problem of intestinal sluggishness besides adding life to our tissues, as we have read how important the dried fruits are, only to find that they too, have been treated with sulphur dioxide to insure quicker drying and a better appearance.

Now when we take any of those foods we have referred to, home, we subject the bulk of them to further degeneration and devitalization by over cooking, frying, broiling or baking. We add insult to injury by drinking colas, soft drinks, or chemically produced beer or wine, if we can afford the latter, to counteract the fever produced by the seething masses of food undergoing a state of partial digestion and putrefaction. Or at least, allay the fever with chlorinated or fluoridated water, which all can afford by reason of the

fact, this mass medication is paid for out of the taxes whether you like it or not, and the only way you can get non-medicated water is to buy bottled spring water, or get it from a spring or well.

After all this ado, should the digestive apparatus act up, we take some bicarbonate of soda, or in case of headache, an aspirin or some other alterative, so that we will be in shape to begin this unnatural way of nourishing our bodies all over again the following day.

And thus we exist, using our bodies as repositories for poisoned, chemicalized, processed over-cooked foods and drink (even our water supply). There is little chance that the usual amount of natural fruits and vegetables we consume is enough to offset the nutritional atrocities we commit against our bodies day in and day out, week after week, year after year. Finally Nature refuses to respond to "pick-me-ups" and completely revolts and we are laid low with any one of many diseases all of which have as chiefest cause, poor nutrition.

More and more leading physicians are beginning to recognize the importance of the work of early nutritionists, and face the fact that poor nutrition is deeply involved in practically every illness from chicken pox to cancer and from infancy to old age, from a headache and halitosis to herpes zoster and hemorrhoids, instead of subscribing whole-heartedly to the belief that conditions are caused by germs or a virus.

Nutritionists have long been of the opinion that man has strayed for too long and too far from the fresh sunripened products of field, garden and orchard, and has been suffering the consequences in illnesses which are unknown among groups of people who depend upon natural foods.

The turn about face to return to the more natural dietary of man has been a long time coming, but it is here; thanks to the pioneer nutritionists of America we referred to in an earlier chapter, and also to the research nutritionists in laboratories all over the land who are proving the rightness of the crusade to Return to Natural Food.

In the forefront of the Return To Natural Food movement, have been the supporters of suncooked fruits and vegetable juices. The raw fruits and vegetable juice era is here to stay. An ever growing multitude of fruit and vegetable juice users has long since out-numbered the raw fooders as such. The rapid growth in the interest and acceptance of suncooked food is an indication that families are "natural nutrition conscious", because the welfare of their families is at stake; and the juice extractor is assuming a place of

prominence in the modern kitchen, as an insurance of the family health, while the coffee or teapot is being relegated to the limbo of the nutritional scrap heap where they belong.

"It Would Be Well For Us To Do Less Cooking and Eat More Fruit In Its Natural State. Let Us Teach People To Eat Freely Of The Fresh Grapes, Apples, Peaches, Pears, Berries, and All Other Kinds Of Fruits That Can Be Obtained."

Ellen G. White, author of "Counsels on Diet and Foods."

CHAPTER, THE ELEVENTH

SUNCOOKED FRUIT AND VEGETABLE JUICES A CURE OF DISEASE OR FOR GENERAL HEALTH?

The use of fresh fruit and vegetable juices have for too long been kept in the therapy field. They have been hailed in many volumes as a panacea for all ills from falling hair and loose teeth, to tumors and cancer; and unquestionably they have rendered remarkable therapeutic service to many ailing people, since many unusual recoveries, attended by the use of juices, are matters of record.

Not enough has been said however, about suncooked juices from the produce of field, garden and orchard, and the important role they play, supplying the optimum of nutrition with the minimum of digestive effort, in the daily dietary of Mr. and Mrs. America and their children, as genuine natural food. Fresh fruit and vegetable juices are for use at all times by all people, and are as beneficial as air, as life giving as sun, and as refreshing as a cooling breeze on a hot summer's day. Yes, they are a combination of all these, for they are the essence of all these electro-magnetic facets, or forces of Mother Nature.

Hitherto, writers on juice therapy have vied with one another to ascribe this or that specific vitamin, or mineral to this or that particular juice. They have said that so many ounces of this juice, combined with an equal or lesser amount of another juice plus a bit of still another produces a special effect. Perhaps it does. We would not argue the point, but we do wonder at the rather definite assertions that they are specifics and on what these are based.

We have been told by these writers that because a particular tissue of the body, for example, brain tissue or tissue forming the nerve sheath, is composed of a high percentage of a given mineral, then the combination of juices which provide the highest percentage of that same mineral is supposed to be, or inferred to be a specific for that area of the body.

The "devised" specifity for fruit and vegetable juice would be rather ludicrous to the extreme if it were not so pathetic. Those nutritionists and physicians who have pioneered in juice therapy and have experimented with juices, it would seem, have allowed themselves to be carried away by their enthusiasm, from which we would not detract, and have built up a fanciful theory and consequently an apothecary of fruit and vegetable juices. In so doing, they have defeated the very purpose it is believed most of them originally had in mind, namely; that all people should use more suncooked fruit and vegetable juices.

All the pioneer advocates of raw or uncooked food, George Drews, Louise Lust, Julian P. Thomas, Eugene Christian, recommend this food for the general public to avoid the ills common to man, though they too saw remarkable recoveries from illness.

Since suncooked fruit and vegetable juices are judged on the basis of existing tables giving vitamin and mineral values, the opinion of an authority on suncooked foods with respect to tables is significant.

> **"The vitamin content of vegetable foods as well as their acid or base-forming capacity, depends greatly on the quality and wholesomeness of the soil from which they are derived. The latter in turn depends on how the soil is treated and fertilized."**
>
> **"Therefore, tables indicating the vitamin content and/or alkaline effect of foods are usually contradictory and unreliable."**

This statement was made by Kristine Nolfi, M.D., director of Humlegaarden, near Elsinfors, Denmark, a haven for 15 years for cancer sufferers from all over the world. Dr. Nolfi used only suncooked or what are erroneously referred to, as raw foods. Dr. Nolfi's statement combined with that quoted from the most recent publication of the United States Department of Agriculture on foods, suggests that our most reliable source of information is Mother Nature herself.

True, some remarkable "cures" are ascribed to the use of fruit and vegetable juices, which are all the more remarkable when one considers that practically all of the "juice therapists" suggest the ingestion of juices in amounts of a pint upwards, and do not suggest the use of these juices exclusively, though the large amounts recommended in many instances, would leave little room for any other foods. In other words, most of the writers either by direct suggestion or implication, convey the thought that the juices are to be added to the daily dietary in illness no matter what it is. Some few, wisely insert, however, the recommendation, that

for best results, the dietary, aside from juices, should be entirely free from sugar, starch and flour, which in general principles would appear to be a wise provision, as all of us eat too much of these altered foods, and in all fairness it must be stated that some have bravely suggested that large amounts of fruits and vegetables would be helpful. Some proscribe meat. Both are good rules to follow.

However, none of the writings, it has been my privilege to peruse in the past, have anything to say about a generally well balanced dietary supplemented by juices. Perhaps they feel that the juice serves the purpose of balancing out every error in living. In a measure they are not in error, but in a larger measure they are in error. Freshly extracted fruit and vegetable juices, of course, will help to replace elements greatly altered in cooked foods, and they can be expected to balance out much of the malnutrition and hidden hunger caused by the average meals Americans are accustomed to eat.

Again with reference to the specific values ascribed to juice, at best these vary considerably according to the soil on which the produce was raised and also the freshness of the vegetables or fruits from which the juice has been made.

The men and women who pioneered in juice therapy have done a magnificent work in lifting suncooked fruit and vegetable juice to a hitherto unrecognized therapeutic aid, except in the Medical Reform and liberal health movements, and brought the therapy to an exalted position which is daily gaining prestige in all schools of healing. We would not minimize this service, but these same pioneers spent far too much time in reducing juice to another medicine to be administered in huge dosages for specific conditions of ill health or disease, and too little time in pointing out the distinct advantage of a liberal amount of suncooked fresh fruit and vegetable juice for food purposes in the daily dietary to promote better all around health for the entire family. Nevertheless, we owe all these men and women a great deal for their work.

To visualize the ideal of fresh fruit and vegetable juices for all is so simple, because fruit and vegetables are the sun, the air, the earth, the moisture, rolled into one, all combined in the great and mysterious process of growth and fruitition we call life, to provide vital force for men, women and children. In fresh fruits and vegetables comes all of the natural forces combined to form the most delectable foods for man. No one can deny or refute this statement. It is incontrovertible.

The dynamic creative force of Nature premeates everything that breathes, and lives and moves, but it took the hand of God, through Nature, to transform this mysterious Universal force into pleasant, acceptable, and assimilable form to create the vital electro-magnetic something in the body we see manifest in the living human, or his lesser brothers, the animals.

It is this vital force, a combination of all vital forces of Nature, plus the juice to which we can ascribe the healing, which juice therapists have too often attributed to juice alone, and it is the same life force which provides that extra vitalizing something in the average person, infants, children and adults alike to enable their bodies to be nourished better, function more efficiently, achieve and remain more healthy, and thereby contribute more abundantly to the happiness of living.

This in no way minimizes the importance of juices as a therapeutic aid but is intended to emphasize the importance of these concentrated suncooked live foods as a health builder for every member of the family, rather than for only those who may be ailing.

It is wiser to prevent illness by providing these foods daily, than to allow ones' self to become ill and then call upon them to come to the rescue, which has been done successfully many times. Every nutritionist and physician recognizes the prophylactic value of good natural foods. There are no better natural foods than the fresh suncooked juices of your favorite fruits and vegetables.

"Voit pointed out what few before him seem to have recognized adequately, namely that the chemical analysis of a substance does not necessarily afford any true index of its possible food value. The chemist as such, can indicate the probabilities of nutritive worth suggested by his analysis: but they must nevertheless be tested by the expedient of physiological experimentation on men or animals.

From: "Nutrition, The Chemistry of Life", by Lafayette B. Mandel, Sterling Professor of Physiological Chemistry, Yale University, Research Associate Of The Carnegie Institution of Washington, D. C.

"Follow Nature: She Is The Best Teacher, And Makes Never A Mistake."

Pestalozzi

CHAPTER, THE TWELFTH

HOW MUCH IS REALLY KNOWN ABOUT FOOD VALUES?

It might amaze you to learn that today in this modern age, with all of our well equipped research laboratories and endless experiments, modern man knows less about the value of prepared or cooked food he puts into his stomach daily than did our forebears, except that cooking does alter food values, vitamins, minerals, and not the least, enzymes, and this has been learned only in comparatively recent years.

And yet, farmers long since learned in the forgotten past that cows give better and richer milk when grazing on the vernal and autumnal verdure, than the dry fodder, hay or corn during the long winter months; and that chickens fed on cooked mash or whole corn or other grain but disallowed to scratch for themselves, became poor layers or laid more eggs with soft shells; and likewise the breeder and trainer of thoroughbred horses knew his animals had more snap in their step, speed in their legs, and sheen to their coat, and were higher spirited when they received the natural grains, grass and a goodly sprinkling of carrots.

But strangely, not many of the farmers, or poultrymen, or breeders of horses, applied the same principle of live natural food to themselves. They had become victims of the culinary art, specifically cookery, even as the average man who has had no "close by" example of better nutrition in animals.

And so too, our modern nutritionists have been slow to recognize the superiority of suncooked, over "fire-cooked" foods and have been speaking out for larger use of the former without question.

All and sundry have been victims of thoughtless acceptance of foods as they are delivered to us from the processor. Scientifically, it would seem, if we are to believe the Agriculture Department of the United States, less is actually known about foods than our nutritionists and researchers, or at least the various books on the subject of foods, with their impressive charts, would have us understand.

Be that as it may, do not allow this statement to disillusion or discourage you, for be assured that science continues to strive to unravel the mysteries of minerals, vitamins, enzymes, amino acids, starch, protein and fat, locked in the millions of cells of which the fruits and vegetables and grain and consequently meat is composed.

All through this little treatise we have stressed the importance of always placing one's faith in trustworthy Nature, rather than science, which has a way of changing theories.

Nature is exact, not science. Nature has produced our foods from time immemorial, and by trial and error, better known as empirical methods, our agriculture of today was developed via horticulture from the time when we had a few foods compared with the number we have today. Science confirms Nature, but never leads or supercedes her.

We have always maintained that nutrition in a nutshell is this: "Eat all foods as close to their natural sources as possible; that means as many of them as possible uncooked, and in the preparation of the cooked ones as little cooking at low heat as possible." Science has never been able, and never will be able to improve upon this concept.

Confirming our belief in the general lack of well based scientific information about food, we have the statement of the Agriculture Department of our own great country, conceived in liberty and dedicated to the dignity of man under God. But before quoting this amazingly revealing statement I should like to briefly review the history of nutrition with respect to the Department of Agriculture. The Department published the first food composition tables less than 70 years ago, or in 1896. The first revision of that work took place in 1906, and was prepared by W. O. Atwater, a name familiar to researchers of 50 years ago, and less. I well recall the name in tables consulted when I was in college. Ten years later there was assembled and published another table, and then, nothing further until 1940, when Charlotte Chatfield and Georgiana Adams prepared a revision.

Finally in 1945, "Miscellaneous Publication 572", was issued containing data on 275 foods, published by the United States Department of Agriculture, the National Research Council cooperating; this was revised in 1950 under the title: "Composition of Foods — Raw — Processed — Prepared", by United States Department of Agriculture, with sub-title, "Agriculture Handbook No. 8" by Bernice K. Watt, and Anabele L. Merrill, with assistance of Martha Louise Carr, Woot-Tsuen-Wu, and Rebecca Koonce Pecot, Bureau of Human Nutrition and Home Economics, Agriculture Research Administration.

Since then there has been no further revision, though there have been other lesser supplementary publications.

In the Agriculture Volume referred to, published in 1950, we read this unbelievable, but unquestionably true statement:

> **"At the present however, it is impossible to prepare average composition values that are uniformly representative of all foods or even for all constituents of any one food.**

"Some foods have been analyzed repeatedly for their content of a few nutrients and scarcely at all for other nutrients.

Yet, I would remind my readers that this is the basis numerous tables which are referred to as a source of Nutritional Gospel Truth.

It was further stated that,

" . . . in only a few cases were suitable analysis on which to base figures for either the proximate or mineral composition of frozen foods or cooked vegetables. Where actual data were lacking or appeared to be inconsistent, the composition of the drained portion of the canned food or of the raw product was used."
"Cooked foods, a few prepared dishes and frozen foods have been included in the tables for the first time. Figures on these items are preliminary in many cases based on very little experimental work. However, even in tentative form they more closely approximate the nutrient content of food as eaten than do data on uncooked foods. . ."

It is plain to see from these statements that more has always been known about the value of raw or the uncooked foods, foods as they grow and as most of them are intended to be used by man, than about cooked or prepared foods which form the bulk of the average person's food.

It is strange that through all these years so little has been learned about the lesser value of cooked foods, compared to the suncooked foods, which researchers refer to as raw.

Just why so little appears to have been done in determining the content of cooked foods, which all nutritionalists know are inferior, through all the years, is hard to understand. It would seem that nutritionists and physicians were satisfied to accept the food content table on raw or uncooked foods as the basis for the cooked food content, which constitutes a grievous error.

Obviously science is again merely proving that Nature provides the best in the raw or suncooked state, from which fresh fruits and vegetables juice are made. All laboratory tests thus far, have so proved and all tests that may be made in the future, you may be sure will confirm it.

Suncooked food is unquestionably the best. It comes in no better form than in fresh fruits and vegetables and their freshly expressed juices. By using them freely in the daily dietary of the family, the deficiencies of other foods, to which we are so much accustomed, are offset.

CHAPTER, THE THIRTEENTH

THE VITAMINS OR LIFE GIVING FORCES OF FOOD FROM WHENCE DERIVED

The vitamins represent the vital principle of foods without which the starches, the carbohydrates, protein or fats cannot do more than supply heat, energy and tissue repair. It is the minerals combined with the vitamins in live, "enzyme-rich" form which the body needs.

The vitamins, likewise, are rendered less effective without the presence of minerals. In fact, all nutrients are so interlocked, one with the other in this wonderfully mysterious realm of food so that all are needed to make the individual specific factors, now known, and the many still unknown, the more effective and life sustaining. In other words, adequate and efficient nutrition is dependent upon the presence of live vitamins and minerals and enzymes. The latter have been treated of elsewhere in this volume. Each and all are vitally necessary.

The specific vitamins which have been isolated since the discovery of the vitamine by Casmir Funk in 1911, and the known functions of each, and their important sources are given below with the same category of sources, animal, vegetable, and fruit, designation as followed in the case of listing the minerals in the chapter, which follows.

VITAMIN "A"

Presumed to provide protection against infection. Aids in sustaining good vision, acts to prevent night blindness; promotes growth, longevity, helps to prevent tooth decay, colds, catarrhal conditions and improves the general condition of the skin.

ANIMAL SOURCE: Butter, Cheese, Cod Liver Oil, Cream, Egg Yolks, Liver, Milk, Halibut Liver Oil, Raw Fish.

VEGETABLE SOURCE: Beets, Carrots, Celery, Cabbage, Cucumber, Endive, Kale, Onions, Parsley, Radish, Spinach, Tomato, Turnip Tops, Soybean Oil, Water Cress, Wheat Germ Oil. All green leaves, freshly picked, no refrigeration, freezing or cooking.

FRUIT SOURCE: Almond Oil, Apples, Bananas, Cantaloupe, Cocoanut, Cherries, Lemons, Peach Kernel Oil, Pineapple, Prunes, Tomatoes.

VITAMIN "B"

Thiamine . . . Assimilation and the appetite are responsive to Vitamin "B". It was among the first vitamins to be isolated; and is considered a tonic for nervous system. It is a combination of live Phosphorus, Sul-

phur and Potassium. Acts favorably to promote digestion, thereby increasing vitality. It is fundamentally essential to all expectant mothers who wish happy, healthy, normal babies. Long recognized as cure for beri beri, and some form of nervousness and heart disturbances.

ANIMAL SOURCE: Brewers Yeast, Liver, Liver Extracts, Meat, Milk.

VEGETABLE SOURCE: Beans, Beets, Bran, Cabbage, Carrots, Celery, Cucumber, Dandelion, Germinated Grain, Kale, Lentils, Onion, Parsley, Peas, Peppers, Radish, Spinach, Tomato, Turnip Tops, wild Water Cress.

FRUIT SOURCE: Apples, Cocoanut, Lemon, Pineapple.
GRAINS: Buckwheat, rice shavings, wheat germ, wild rice.

The young sprouts of any edible plant such as young violet sprouts, kidney bean sprouts, bean sprouts, potato sprouts, and peelings, hawthoren sprouts, ferns, young violet sprouts, maple tree sprouts, are all best sources of supply for this Vitamin.

VITAMIN "B" COMPLEX

Nictotinc Acid, Pyrodozine, Choline and Folic Acid, Broten, Mositol, Pantothenic Acid, Para-Amenio-Benzoic Acid, etc. (know as anti-gray hair factor)
These are seldom deficient in average dietaries as their source covers such a wide range of foods.

ANIMAL SOURCE: Cheese, Eggs (raw) Meat, Milk, Yeast Products.

VEGETABLE SOURCE: Fresh young leaves and flowers, also roots of all edible plants (if properly cooked). Dandelion leaves, Beet leaves, Beets, Garden Cress, Nettles (cooked), Parsley, Red Clover leaves and flowers. Spinach.

FRUIT: Fresh young fruits of all edible plants, Nuts. Preserves natural color to hair.

VITAMIN "C"

The anti-scurvy vitamin. The effect known for perhaps longer than any other, as the anti-scurvy favor. Also called Ascorbic or Cevitanic acid. Protection against scurvy, anemia, swollen limbs, ulcers, etc.
Vitamin contains live Iodine and Sodium in combination with both Potassium and Sulphur. Considered excellent for glands.

ANIMAL SOURCE: Fish (raw)

VEGETABLE SOURCE: Bamboo Sprouts, Bean Sprouts, Beets, Cabbage, Celery, Cucumber, Endive, Dandelion, Green Pepper, Kale, Kelp, Irish Moss, Parsley, Pimento, Radish, Stringbeans, Seaweed, Sea Holly, Seed Spinach, Turnip tops (raw), Water Cress, and all fresh young edible leaves if within ten miles of ocean.

FRUIT SOURCE: Apples, Cranberries, Grapefruit, Lemons, Oranges, Pineapple, Tangerines, Tomatoes.

VITAMIN "D"

Calcium and Phosphorus in the body are regulated by Vitamin D, thereby preventing rickets, bone deformities, tooth decay, muscular weakness and nervousness.

ANIMAL SOURCE: Butter Caviar, Cheese, Cream, Egg yolks, Fish of all kinds, Cod Liver Oil, Halibut liver oil, Irradiated food, Seaweeds — Broad leaved vegeable used fresh.

VEGETABLE SOURCE:

FRUIT SOURCE: Nuts.

Foods eaten fresh from direct exposure to sunshine. Rays of sun act to develop Vitamin "D" from egosterol in tissue of body .

VITAMIN "E"

Tocoperol

Said to be excellent in pronounced condition of nervousness and muscular weakness and atrophy. All foods containing live phosophorus and live calcium, contains Vitamin E essential to reproductive function.

ANIMAL SOURCE: Butter Caviar, Clams, Egg Yolk (raw), Oysters, Some Meats

VEGETABLE SOURCE: Almond Oil, Beans, Black Mollasis, Chard, Celery, Celery Seeds, Corn, Lentils, Parsley, Peas, Spinach, Seaweeds, Soybean Oil, Turnip tops, Wheat Germ Oil.

GRAINS: Buckwheat, Barley, Brown Rice, Corn, Rice, Rye, Oatmeal, Wheat.

FRUIT SOURCE: Nuts.

It is best in combination with live sodium and live sulphur, found in all non-poisonous green leaves, which bear yellow and white flowers.

VITAMIN "G"

Refining and cooking foods usually results in the loss of this vitamin. It is reputed to act to prevent colitis, eruption on the skin, ulcers, cataract and pellagra.

ANIMAL SOURCE: Cavair, Clams, Egg yolks, Liver, Liver extracts, Milk, Oysters, Salmon, Yeast Products, Yeast.

VEGETABLE SOURCE: Bean Sprouts, Bamboo Sprouts, Bean Leaves, Beets, Cabbage, Carrots, Cress, Dandelions, Endive, Fennel, Kale, Mustard greens, Soybean Sprouts, Spinach, Turnip tops, Tomatoes, Parsley, Onion, Water Cress.
Cereals and fresh ground leaves of all kinds uncooked.

FRUIT SOURCE: Apples, Bananas, Lemons, Pineapple.

VITAMIN "K"
This is a live sodium compound. Much uncertainty connected with it. Prevents internal bleeding.

SOURCE: Camomile flowers, Common tiny field daisy, Blossoms of Yarrow, Blossoms of Lily of the Valley.

Of course, not all fruits and vegetable products capable of providing juice by extraction are listed in the mineral and vitamin source section, but, those most commonly used.

For reference to other fruits and vegetable products not listed in the mineral and vitamin source sections, from which you might wish to select for making juices, consult the Section listing, Animal, Vegetable and Mineral source of minerals and vitamins.

Not all the sources of the vitamins have been given, as foods cover a very wide range. However, the most common sources have been listed, along with some not commonly known but widely available.

CHAPTER, THE FOURTEENTH

THE MINERALS AND THE FOODS FROM WHICH THEY COME

The minerals in our foods, unknown by actual name to the ancients and early nutritionists, were none the less recognized as essential to well being though not as distinctive principles. Experiments of early nutritionists established the facts which were later confirmed by more elaborate tests in the laboratory.

None of these tests have made it necessary to alter the basic rule of nutrition, namely to eat all foods in as natural form as possible, suncooked, more commonly referred to as raw, to insure the optimum of nourishment.

The minerals of nature's bounty are locked in the cells of every fiber of fruits and vegetables, and the more these fibers are subjected to heat and processing the more likely is there to be loss in both the quantity and quality of the minerals.

Since some of this loss can not be prevented because most people insist upon eating larger amounts of fire cooked food than suncooked, or what is erroneously referred to as raw, we have arranged the following resume of mineral sources and divided these sources into, three well defined sections: (1) Animal Section. (2) Vegetable Section. (3) Fruit Section. Where grains have been referred to, we designate a separate section while nuts are included under fruits, and legumes under vegetables. This simple division enables the housewife to determine the most flavored, handy and economical way to insure ample mineral consumption for every member of her family.

LIME OR CALCIUM AND ITS SOURCE:

Calcium preserves the teeth and other bone structures including nails, imparts endurance and strength and increases life span, helps to insure red blood.

ANIMAL SOURCE

Cheese	Meat	Milk
Eggs - Egg Shells		

VEG. SOURCE

Arrowroot	Dandelion	Peas
Beans	Endive	Radishes
Beets	Kale	Spinach
Cabbage	Lentils	Tomatoes
Carrots	Lettuce	Turnip Tops
Cabbage	Onions	Water Cress
Celery	Parsley	

GRAINS

Barley	Oatmeal	Rye
Millet	Rice	Wheat

FRUIT SOURCE

Apples	Nuts	Pineapple
Bananas	Orange	Water
Cocoanut		

CHLORINE:

Chlorine is responsible for maintaining suppleness of joints and elasticity of ligaments, also promotes expulsion of water matter.

ANIMAL SOURCE

None

VEGETABLE SOURCE

Green Onion
Asparagus
Bamboo Sprouts
Bean Sprouts
Beets
Cabbage
Carrots
Celery
Cucumbers
Cress
Dandelion
Elm Leaves
Endive
Escarole
Garlic
Hops
Leeks
Lettuce
Maple Leaf Sprouts
Mustard Greens
Green leaves of all kinds
Motherwort
Onions
Parsley
Potatoes
Radishes
Radish Leaves
Strawberry Leaves
Tomatoes
Turnip Tops
Water Cress

FRUIT SOURCE

Apples
Cocoanut
Grapes
Peach Leaves
Pineapple
Prunes
Plums

FLUORINE:

Known as youth mineral, as it is assumed to be a preserver of youth, acts to protect against disease of bones, and also skin eruptions. As found in food protects enamel of teeth.

ANIMAL SOURCE

Marrow of bones
especially
Meats

VEG. SOURCE

Beets
Beet tops
Carrots
Carroway
Parsley
Parsnips
Turnips
Turnip tops

FRUIT SOURCE

Nuts

IODINE:

Known as the essential food for the glandular system. Believed to be of especial value in goitre, insanity, nervous condition, etc.

ANIMAL SOURCE

Fish
Fish Oil
All Sea Food

VEG. SOURCE

Asparagus
Cabbage
Carrots
Dulce
Garlic
Irish Moss
Kidney Beans
Lettuce
Mushrooms
Onion
Radishes
Sea Spinach
Sea Holly
Sea Weed
Spinach
Tomatoes
Water Cress
(Especially if grown within several miles of the sea coast.)

FRUITS

Citrus Fruits (Oranges, Lemons)
Grapefruit or Shaddock
Pineapple

IRON:

This is the key mineral as it harmonizes the life force throughout the system, promotes warmth, increases mental endurance and ability, creative effort, and enriches blood by its ability to carry oxygen.

To be properly appropriated in the body Sulphur and Potassium must be present in sufficient quantity.

ANIMAL SOURCE

Egg yolk (raw)
Liver of all meats
Meats of all kinds
Yeast
Yeast Vegetable Extracts

VEG. SOURCE

Alisander
Beets - beet tops
Cabbage
Carrots
Celery
Chicory
Cucumber
Dandelion
Egg Plant
Endive
Gentian
Hops
Kale
Lettuce
Onions
Parsley
Radishes
Red Cabbage
Spinach
Stinging Nettles (Spanish)
Tomato
Turnip Tops
Vegetable Extracts
Water Cress

GRAINS

Barley
Corn
Oatmeal
Rice
Rye
Wheat

FRUIT SOURCE

Apples
Blackberries
Blueberries
Capeberries
Cherries
Cocoanut
Currants
Dates
Elderberries
Figs
Grapes
Gooseberries
Pears
Pineapple
Plums
Raspberries
Raisins
Strawberries
Nuts
Molasses

MAGNESIUM:

The mineral which is referred to as the "refresher of the body", as it promotes sleep. Supposedly acts as laxative, thereby aiding complexion and preventing wrinkles.

ANIMAL SOURCE

Raw Eggs

VEG. SOURCE

Lettuce
Alisander
Beans
Cabbage (Red & White)
Carrots
Celery
Corn
Cowslip
Chicory
Cucumber
Dandelion & leaves
Endive
Garlic
Groundsel
Hepatica
Leeks
Lentils
Okra
Onions
Parsley
Radishes
Rhubarb
Spinach
Tomato
Turnip tops
Water Cress

GRAINS

Oatmeal
Rice (unpolished)
Rye (whole)

IRON:

This is the key mineral as it harmonizes the life force throughout the system, promotes warmth, increases mental endurance and ability, creative effort, and enriches blood by its ability to carry oxygen.

To be properly appropriated in the body Sulphur and Potassium must be present in sufficient quantity.

ANIMAL SOURCE

Egg yolk (raw)
Liver of all meats
Meats of all kinds
Yeast
Yeast Vegetable Extracts

VEG. SOURCE

Alisander
Beets - beet tops
Cabbage
Carrots
Celery
Chicory
Cucumber
Dandelion
Egg Plant
Endive
Gentian
Hops
Kale
Lettuce
Onions
Parsley
Radishes
Red Cabbage
Spinach
Stinging Nettles (Spanish)
Tomato
Turnip Tops
Vegetable Extracts
Water Cress

GRAINS

Barley
Corn
Oatmeal
Rice
Rye
Wheat

FRUIT SOURCE

Apples
Blackberries
Blueberries
Capeberries
Cherries
Cocoanut
Currants
Dates
Elderberries
Figs
Grapes
Gooseberries
Pears
Pineapple
Plums
Raspberries
Raisins
Strawberries
Nuts
Molasses

MAGNESIUM:

The mineral which is referred to as the "refresher of the body", as it promotes sleep. Supposedly acts as laxative, thereby aiding complexion and preventing wrinkles.

ANIMAL SOURCE

Raw Eggs

VEG. SOURCE

Lettuce
Alisander
Beans
Cabbage (Red & White)
Carrots
Celery
Corn
Cowslip
Chicory
Cucumber
Dandelion & leaves
Endive
Garlic
Groundsel
Hepatica
Leeks
Lentils
Okra
Onions
Parsley
Radishes
Rhubarb
Spinach
Tomato
Turnip tops
Water Cress

GRAINS

Oatmeal
Rice (unpolished)
Rye (whole)

FRUIT SOURCE

Apples	Cocoanut	Limes
Bananas	Gooseberries	Oranges
Capeberries	Grapefruit	Pineapple
Cherries (Red & White)	Lemons	Tangerine

MANGANESE:

Known as, the mineral of the nervous system. Strong nerves are supposedly more dependent upon manganese. It acts in the co-ordination of thought. Assures quick ability to recuperate and aids in preserving elasticity.

ANIMAL SOURCE

None

VEG. SOURCE

Carrots	Ferns	Parsley
Chicory	Garden Cress	Spinach leaves
Clover	Groundsel	Sorrel
Elm leaves	Mint	Thyme
Endive	Mustard Greens	Water Cress
Dandelion	Okra	

FRUIT SOURCE

Peaches	Peach leaves	Strawberry leaves

PHOSPHORUS:

Every thought consumes this vital mineral. It acts to make it possible for other elements to produce bone, haemoglobin or red blood cells, and sinew or muscle. Deficiency encourages neurasthenia.

ANIMAL SOURCE

Cheese	Eggs	Meat
Cod Liver Oil	Fish	

VEG. SOURCE

Barley	Endive	Peas
Beans	Kale	Potatoes
Cabbage	Lentils	Radishes
Carrots	Lettuce	Spinach
Carroway Roots	Nuts	Tomato
Celery	Okra	Turnips
Celery Seeds	Onions	Turnip tops
Corn	Parsley	Water Cress
Dandelion	Parsnips	

GRAINS

Oatmeal	Rye (Whole)	wheat products
Rice (brown)	Wheat (whole	from stone ground flour)

FRUIT SOURCE

Apples	Oranges	Pineapple
Cocoanut		

FRUIT SOURCE

Apples	Cocoanut	Limes
Bananas	Gooseberries	Oranges
Capeberries	Grapefruit	Pineapple
Cherries (Red & White)	Lemons	Tangerine

MANGANESE:

Known as, the mineral of the nervous system. Strong nerves are supposedly more dependent upon manganese. It acts in the co-ordination of thought. Assures quick ability to recuperate and aids in preserving elasticity.

ANIMAL SOURCE

None

VEG. SOURCE

Carrots	Ferns	Parsley
Chicory	Garden Cress	Spinach leaves
Clover	Groundsel	Sorrel
Elm leaves	Mint	Thyme
Endive	Mustard Greens	Water Cress
Dandelion	Okra	

FRUIT SOURCE

Peaches	Peach leaves	Strawberry leaves

PHOSPHORUS:

Every thought consumes this vital mineral. It acts to make it possible for other elements to produce bone, haemoglobin or red blood cells, and sinew or muscle. Deficiency encourages neurasthenia.

ANIMAL SOURCE

Cheese	Eggs	Meat
Cod Liver Oil	Fish	

VEG. SOURCE

Barley	Endive	Peas
Beans	Kale	Potatoes
Cabbage	Lentils	Radishes
Carrots	Lettuce	Spinach
Carroway Roots	Nuts	Tomato
Celery	Okra	Turnips
Celery Seeds	Onions	Turnip tops
Corn	Parsley	Water Cress
Dandelion	Parsnips	

GRAINS

Oatmeal	Rye (Whole)	wheat products
Rice (brown)	Wheat (whole	from stone ground flour)

FRUIT SOURCE

Apples	Oranges	Pineapple
Cocoanut		

POTASSIUM:

Said to be the mineral for healing and relief of pain among the minerals. Aids growth of hair and is said to be conducive to promoting enthusiasm in which most people today seem to be deficient.

VEG. SOURCE

Beets & Leaves
Blites
Cabbage - Red
Carrots
Celery
Endive
Ferns
Kale
Lettuce
Onion
Potatoes (esp. skins)
Red Clover & leaves
Red thistle
Sage
Saxifrage
Spinach
St John's Bread
Thyme
Tomato
Turnip tops
Water Cress
All edible plants with red flowers

FRUIT SOURCE

Apples
Blackberries
Blackberry leaves
Blueberries
Elderberries
Cocoanut
Grapes, and leaves
Huckleberries
Pineapple
Plums
Strawberries and leaves
Watermelon

SILICON:

Reputed to be the hair growing mineral and promoter of better sight.

ANIMAL SOURCE

Bone Marrow
Cheese
Cod Liver Oil
Eggs (raw)
Halibut Liver Oil
Herrings
Meat
Yeast

VEG. SOURCE

Barley
Beans
Carrots
Corn
Cucumber
Cucumber Seeds
Celery Seeds
Green Pepper
Hops
Lentils
Melon
Peas
Sage
Thyme

FRUIT SOURCE

Almonds
Cocoanuts
Figs
Hazelnuts
Melon Seeds
Nuts
Pecan Nuts
Prunes

SODIUM:

Referred to by nutritionists as the clear brain and good nature chemical. It acts to alkalize the blood like potassium it makes it possible for the blood to absorb other minerals as iron, phosphorus, calcium and iodine. Digestion is aided, and poisons and acids neutralized by the presence of sodium. On the spleen it seems to exercise a beneficial effect to promote efficient functioning.

Calcium and silicon are kept in solution in the body through the combining action of sodium, sulphur and potassium.

ANIMAL SOURCE

None

VEG. SOURCE

Agrimony
Angelica
Bamboo Sprouts
Blessed Thistle
Calamint
Camomile
Carrots
Celery and Seeds
Cellandine
Cowslip flower, Seeds & leaves
Dandelion, flower & leaves
Elm leaves
Endive
Daisies (common field)
Ferns
Field Cress
French Beans (flower & leaves)
Garden Cress
Goutwort
Hepatica
Hops
Jasmine flower
Leeks
Lettuce
Lilly of the Valley
Lindenflower
Liverwort
Moterwort
Mudder leaves
Mustard leaves
Nasturtium
Nettles
Onions
Parsley & seeds
Peach leaves
Radishes
Sorrel leaves
Spinach
Tomato
Turnip tops
Water Cress

FRUIT SOURCE

Apples
Cocoanut
Pineapple

SULPHUR:

The expelling of body impurities is the reputed office of this mineral, besides enabling the great laboratory of the body the liver, to act as a transformer and storehouse. It also acts to celanse the blood stream, add lustre and strength to the hair and tone to the skin.

ANIMAL SOURCE

Egg Yolks
Honey
Yeast

VEG. SOURCE

Alfalfa
Alisander
Asparagus
Balm
Beet leaves
Cabbage
Carrots, seeds and leaves
Carroway seeds
Celery & seeds
Cucumbers
Dandelion leaves & flowers
Endive
Fennel
French or Kidney Bean leaves
Garlic
Hepatica flowers & leaves
Hops
Kale
Leeks
Liverwort
Marshmallow
Majoram
Motherwort
Mustard flower & leaves
Nasturtium leaves
Nettles
Onions
Peas
Parsnips
Parsley leaves & flowers
Potatoes
Suecory
Succovy
Sage
Sea Holly
Eringo
Radishes & leaves
Redcock or bloodwort
Sorrel Leaves & flowers
Strawberry leaves
String Beans
Spinach
Thyme
Turnip tops
Tomato
Water Cress
Wild Vine
Yellow Violet leaves & flowers

FRUIT SOURCE

Apples
Apricots
Apricot leaves
Barberry leaves
Bilberry leaves
Blackberry leaves
Black Currant leaves
Cocoanut
Figs
Gooseberry leaves
Peaches
Plums
Prunes
Melon seeds - melons
Pineapple

CARBON:

Found in all animal and vegetable substance in varying quantities. It is an absorber of and promotes digestion. Obtained from the application of heat to carbonaceous materials as bread, cereals, etc.

NITROGEN
OXYGEN
HYDROGEN

These are the gaseous elements so essential to all vegetables and animal life. They are colorless, and odorless and constitute about one-fifth of the volume of the atmosphere around us.

The efficiency with which the body takes in these elements depends upon proper balance of the minerals and the vital principle or electro magnetic power of the body.

From a close perusal of the foregoing it will become readily evident that the most prolific and best source of minerals are those listed in the vegetable and fruit sections.

It should be clearly understood that in selecting food from these sections, to guarantee an adequate mineral supply for all members of the family, it is of great importance that all of the foods should be used in their suncooked state as near as possible instead of recooked by man.

And even in that state we can with distinct advantage supplement these sunripened foods with the freshly extracted juice from the same nutritive sources. Our fruits are rich in vitamins, minerals and enzymes, and the best way to use the fruits is in the suncooked state and in the delectable and satisfying juices they provide to-day simply by the flick of the switch of the modern juice extractors. Indeed, these freshly extracted juices are the nectar of the gods.

I would be remiss were I to avoid pointing out the best source of the foods listed.

IN THE CASE OF THE ANIMAL FOODS. Meats are best fresh killed, Eastern slaughtered animals are less treated than Western. Fowl are treated with Stilbestrol, to promote rapid maturing; and auromycin as a preservative of freshness after being killed. In buying fish stipulate that you do not want auromycin treated fish, used to promote freshness.

DETERMINE SOURCE OF EGGS. They should come from well fed chickens.

CHEESE. Buy cheese that is cut from large cheese, these are better made, less processing.

OILS and nut butters should not be hydrogenated.

IN THE CASE OF FRUITS AND VEGETABLES. In purchasing, examine texture for firmness and color, for vividness and depth.

Purchase organically grown produce whenever possible, otherwise check on the source and insist upon spray free.

"First Follow Nature and Your Judgment Frame
By her Just Standard, Which Is Still the Same
Unerring Nature, Still Divinely Bright;
One Clear Unchanged, And Universal Light
Life Force, Beauty, Must All Impart,
At Once The Source, And End and Test of Art."

Pope

CHAPTER, THE FIFTEENTH

LIVE FOODS — THE ENZYME FACTOR

PRIMAL ARCHITECTS OF LIFE

For many long years, the only food factors recognized by science were the proteins, fats and carbohydrates. Their about fifty years ago the first vitamine was isolated. These followed more vitamin discoveries and recognition of minerals. But modern man with all the science to help him, is still much in the dark.

But even the ancients, or aboriginals knew better. They lived by a different code than civilized man. Their code might be called "natural instinct"; the code of civilized man "acquired science".

The "Natural Instinct" code of yesteryear, developed from tradition, and practices through tens of thousands of years in the fight to sustain life. When man lived merely on berries, sprouts, roots, fruits, nuts, birds, eggs and such, the bounty of Mother Earth, as appears to have been the case, he ate all of these things in their natural suncooked or ripened state, which modern civilized man thoughtlessly refers to as "raw".

When man migrated from his original abode, rich in all these foods, into climes that did not favor the production of the foods to which he had become accustomed, he naturally had to look to other sources to sustain himself. Long since he chose the nearest source of supply namely: his friends, the animals he had put to work and from whom he had already accepted and learned so much. He found that he could gather milk from animals over a longer period of time than during the period of gestation by simply stimulating the lacteal glands through the simple process of hand milking, and thus began the development of what has become the enormous dairy industry of today.

Man also learned from the carnivorous animals that, when no other fresh or live food is available, fresh meat, especially the entrails, the vital organs, as the liver, pancreas and blood, provide a source of "something" which he needed to live and keep strong. While civilized man would have no stomach for gnawing on raw meat or the liver, or heart, or

viscera of an animal, his brother the Eskimo, and too, other aboriginals do eat of these "live" foods, knowing by the instinct of self preservation that these foods will keep him alive.

These same Eskimos and other aborigines however, have not learned that to forsake these foods and partake of the white man's refined foods, they invite the white mans' diseases of tuberculosis, and cancer with their train of death. They would learn this only by trial and error, as he did, that blood and entrails would preserve his life through countless years.

The white man, however, on the other hand, lacking the instinct of the Eskimo, has learned by laboratory research that many of his so-called better foods, are lacking in essential food qualities and that both animals and men suffer "malnutritional" diseases when these processed foods are used exclusively, or are not generously supplemented with natural foods, especially the colored vegetables and fruits.

Flesh eater, that man in the retrogressive nutritional period of his march from the cave man era to the present became, he now no longer resorts to eating the raw meat or entrails of animals, but rather prefers liver, well done. We do, however, have evidence of the scientific confirmation of the animal's and of aboriginal man's custom of eating raw meat, entrails, blood and all in the modern treatment of anemia with fresh calve's liver; and the more recent use of raw liver in the treatment of cancer by the late Max Gerson, M.D., which he used in conjunction with liberal amounts of fresh vegetables and their juices, is further confirmation.

But in those areas of the earth where scarcity of food prohibits man from having a variety of either a vegetarian or omnivorous diet, we find people who still live by the ancient code of eating the raw entrails of their catch or kill. Anyone who has travelled in the extreme Far North can verify this. These people are relatively free from dental cares, cancer, rheumatism, heart and circulatory diseases, diabetes, common to civilized races living on the cooked processed foods, characteristic of our so-called "higher standard of living".

Natural people always begin declining in health when they drop their "enzyme rich" dietary and come under the influence of the devitalized "deenzymized" civilized white mans' food supply.

Vlademar Stefanson, when he proved his point that man could live satisfactorily on an exclusive meat diet, was not aware that the preserver of life and sustainer of health, is what we now know of as the enzymes of raw food, irrespective of the source, whether animal, vegetable or fruit, and not the

vitamins or minerals or protein and fat he knew to exist in the exclusive meat dietary.

I would refer to a first hand observation, I had the privilege of making. One from a natural environment, transferred to civilization, where he was educated, returned to his home, and continued his acquired habits of eating. The result were disastorous.

I had a dear friend, a half breed Eskimo and Alaskan Indian, whose dietary was naturally heavy in meat and such other foods as were obtainable when he lived in Alaska, where he was free from disease. He became the Camp Boy of Arch Deacon Stuck, and was immortalized in Dr. Stuck's book "The Ascent of Mt. Denali", (North America's highest peak). As the camp boy he acquired tastes for foods he had never known before. One of the facts which Dr. Stuck brought out was the steadfastness, loyalty and faith of the boy, when for 30 days he kept the base camp, not knowing if the Deacon would return, and saved all the sugar which he had been taught to regard as a great need, not eating of it, during his long vigil in sub-zero weather ranging down to 90°.

Johnny Fredson was subsequently sent to America, and received his pre-college education at Mount Hermon School, founded by Drought L. Moody, Mount Hermon, Mass. for Boys; Mount Hermon was where I met him. Nine years of white man's food took their toll; a most serious case of jaundice developed, which he managed to survive, but ravages of civilization deficient dietary could not be overcome.

Returning to Alaska in the Indian Field Service, the same unnatural foods were readily available. Only toward the end of his life did he begin to see what white man's foods had done to his people, when he wrote me: "We need your service. If we could only have your serviee here. We are in great need. Tuberculosis is rampant."

The next letter I wrote him was returned. He had passed on. White man's food had killed him long before his time.

A significant confirmation of this situation came as this manuscript was completed. It was published in the July-August issue of World Health, published by the World Health Organization. I quote from: "Resurrection of the Eskimos".

"In the beginning, that is, when the Far North still really belonged to them, before the epoch of trapers and traders the Eskimos did not know what illness was.

. . . . . .

"Eskimos harvested tuberculosis from their first contact with civilization. Then syphilis.

. . . . . .

"Dental caries appeared when they abandoned their hunter's diet to eat sugar . . . and drink lemonade."

As far as the development of animal care, much progress has been made, until more recently when the foods of animals has become as much tampered with as the foods of humans.

But the progress in nutrition has been much slower in the human family for some reason or another, until "Hidden Hunger" — the Hidden Nutritional demands of the body were gradually brought to light in research laboratories.

How many more examples do we need like poor Johnny Fredson to convince white man of his food folly?

While the raw flesh dietary, because of its rich enzyme content, does sustain life for the people who live in the extreme polar regions, it is known that longevity is not the rule, perhaps because of the heavy uric acid load the system is obliged to carry because of a dietary composed almost exclusively of meat and mortality is high because of accident and starvation.

The effects of the enzymes, "the primal architects of life" have existed from time beyond counting, but science has been a long time catching up with his uneducated brothers, of centuries ago, who lived by the "code of instinct", and "trial and error" method of learning. In fact, it was these same "live things" which made possible the fermenting of wine, and the raising of bread, the making of cheese, the souring of milk, and a host of other fermentative processes ancient man utilized to sustain life in an otherwise nutritionally unfavorable environment and some of these processes are still used today, though in some instances they have been substituted by chemicals. But then man began to use so-called science for preserving foods with the result, that eventually it was found something was missing, and his super fixed foods would not support life

Cooking was unduly applied, and certain life elements were altered. Vitamins and minerals were greatly diminished but not completely destroyed, except in one or two instances so far as is known. But it appears the active life giving factor was destroyed. Cooked peas, beans, or lentils provide food to sustain life, but they can not be made to sprout, they can not reproduce themselves in the soil as the life element is destroyed. The life element is killed.

The ancients knew there existed vital principles in foods aside from the bulk they supplied to appease immediate desire for foods, and to fill the stomach.

Needless to say they recognized in by-gone days that the essence of food existed in the liquid part in the main. This was probably the reason they considered the blood of animals so exceedingly vital. At least the likeness to their own blood bade them eat it.

The dawn of the era when the use of milk, the fluid supplied by the lacteal glands of animals, became established has also convinced them that food values existed in liquid form.

Many practical demonstrations, by as many men, through the ages, had established the fact that the closer foods could be used to their natural source, the better for man and beast.

Pasteurized milk still helped to sustain life but important factors were gone. Pasteurized milk it was found would not sour properly; and it would not support life by itself.

Perhaps one of the most outstanding experiments to prove the case of the superiority of raw milk was conducted at the West of Scotland Agriculture College, at Auchencruive, near Ayr. It was reported in Research Bulletin No. 4, issued in 1935, under the title, "Relative Values of Raw and Pasteurized Milk in Calf Feeding" by Andrew C. McAndish and A. N. Black. Two groups of calves, each of eight, were fed, one group raw milk the other pasteurized milk, prepared by holding the milk at 145° Fahrenheit for thirty minutes the most usual pasteurization procedure. The experiment covered a period of 90 days. All the animals on the raw milk or in the first group, finished the trial without mortality. In the second group or that living on pasteurized milk, two of the calves died before they were thirty days old, and a third died on the 92nd day, that is two days after the experiment ended.

What was this life giving factor which was so necessary to preserve and perpetuate life? No one had been able to name it, but it was there and men have always known that without it, food lacked its most essential quality. They wanted to know what it was and what destroyed it, and thus began laboratory research which finally lead to the discovery of what for a better term is called the "enzymes", the life perpetuating substances in food.

Enzymes are the primal architects of life so far as we know. They appear to be related of the microzyma of Antoine Bechamp, contemporary of Louis Pasteur.

It is enzymes which cause the seed to sprout; activate yeast, cause vinegar to sour, bread to mold, and bring about the changes in the visible character of living matter.

Enzymes are not present in any cooked food, for heat, to the point of burning ones' finger, approximately 110 to 120 degrees, usually destroys all of them, and most cooking processes are far hotter than this.

Enzymes are not present in chemically preserved foods.

Enzymes are abundantly present in all so-called raw foods, or suncooked natural foods, which have not come in contact with heat, including meat and nuts, cereals, grains, and last but not least, fresh raw fruits and vegetables, and raw meats.

Who wants to eat raw meat? Or raw lentils or grains? But everybody likes raw fresh fruits and vegetables, especially the freshly pressed juices of these, both of which are abundant in the life perpetuating enzymes, the food factor which disappears in the frying pan, the boiler or the oven — no matter what method of cooking, and whether it is done by Oscar of the Waldorf, or dear mother, beloved sister, or sweetheart wife.

Too little is scientifically known about enzymes. But like his brothers of ages gone by, who recognized the necessity of getting his foods as close to Nature as possible, the modern research nutritionist has also recognized the necessity, and has gone on to prove that heat used in cooking, processing, or fixing food is the destroyer of this most vital of all food elements. Without enzymes the body cannot be replenished, the power of the vitamins and minerals are limited in their work, and the functionary processes cannot be as efficiently and properly carried on. Not only are enzymes vital factors which are brought into the body in live food, but they are part and parcel of every live cell in the body. They are the primal architects of life and bear a resemblance to the Microzyma of Antoine Bechamp, professor in the Medical Faculty of Montpellier, France, corresponding member of the Academy of Medicine.

These enzymes appear to be of two kinds, those introduced into the body through live foods. These are given the high sounding term of exogenous, and those manufactured within the organism, endogenous.

It is the enzyme factor which makes the seed to sprout, activate yeast, causes apple cider to sour, and grape juice to ferment, and bring about the changes in the visible character of all living matter.

Enzymes are a natural constituent of all living things, both animal and plant. They abound wherever there is life. They are not to be found in fire cooked foods, but sun-ripened or cooked foods.

All tissues of the human body, whether osseous (bone) adipose (fat) protein (muscle) or the soft tissues or visera have an abundance of enzymes. These act in various ways to sustain life by utilizing food, promoting the disintegration of waste, discharge of it, and circulation, etc. Are these the primal architects to which Antoine Bechamp one of the greatest scientists of all time, gave the term microzymia, but which appear to now have been given the name 'enzyme'?

Oddly enough these enzymes of the body are expendable — and when all are gone, death ensues. We can supply enzymes and feed those which are in the body only through

eating live enzyme laden foods, suncooked foods. So far as is known the only element making food live and capable of reproducing itself is the enzymes factor, which is a component part of the life germ itself.

Deorganized Foods: All cooked foods — all food purchased in stores except the unfired or uncooked foods — are what can be called disorganized, disharmonized foods. The use of heat and chemicals in processing them has caused them to lose considerable value as food which cannot be made up by eating larger quantities of the same food, but can only be circumvented by a larger consumption of the harmonized or organized life giving food as Nature prepares them for us and gives them to us in their suncooked or raw state whether in bulk or in juices.

The body labors under the great strain and duress of this unnatural fuel and provender, spending proportionately more vitality assembling and preparing it for digestion than it derives from it, with the cumulative result that encumberances build up in the system and eventually disease of one kind or another appears.

Every man, woman and child does need enzymes — the "primal architects of life", in the dietary — and there is no better way to get them into the body than in the use of fresh fruit and vegetable juices to supplement more suncooked food in the daily dietary as fruits, vegetables, and salads.

For enzyme preservation (the life element of food), eat all foods as close to their natural state as possible, and to assure your body replenishing its supply continuously adhere to these two principles.

1. Eat all foods as close to their natural state as possible.

2. Foods which can be eaten in their suncooked (raw) state as fruit and vegetable and their juices should always be so used.

Let Food Be Your Medicine
And Medicine Your Food
Hippocrates — Father of Medicine

COFFEE BREAK REPLACED BY JUICE FEST A GREAT BOON TO INDIVIDUAL HEALTH AND EMPLOYEE EFFICIENCY

CHAPTER, THE SIXTEENTH

The rigours of war production in manufacturing plants in the early forties ushered in what appeared on the American Labor Scene to be a great boon to labor, the now familiar, "Coffee Break," as it came to be called. This meant stop-

page of work for ten minutes at mid-morning and mid-afternoon of the working day, to partake of coffee.

Still employers have been unable to estimate how much of a boon or bust the "coffee break" idea has been except insofar as the "break" provided rest thereby changing the work pattern. Unquestionably some tangible benefits have come to both employee and employer, even as it did to the employees of the Macfadden Publications, who benefited by merely taking a five minute break, without anything whatsoever to drink.

Bernarr Macfadden, father of Physical Culture, had instituted sixteen years earlier, the "exercise break" at the Macfadden Publications for his hundreds of employees for the purpose of relieving physical tension and to promote a relaxed happy attitude of mind. The time was invested in simple loosening up exercises, "not compulsory," similar to those we instituted at that time on the "Early Bird" John Gambling Show in 1924.

As for using the period for imbibing coffee, those who have a knowledge of nutrition know that coffee is an enervant. It supposedly, mildly stimulates, but actually it enervates, by its active ingredient, an alkaloid caffeine. Coffee nevertheless, despite its being an enervant, like alcohol and tobacco is big business and the "coffee break" appears to have made it even bigger.

Planters and processors of coffee, lead by the Pan American Coffee Bureau of 120 Wall Street, New York 5, New York, were not slow to take advantage of the developing trend. Large full page display advertisements showing leading personalities of the screen, among them Jack Webb, were used to emphasize the value of the "coffee break" with the caption: "Movie Maker Takes Five For Coffee Break". These were running in 1955, and by 1956 coffee consumption was picking up, thanks to the "Coffee Break", which TIME Magazine described in its February 27th. issue of that year, under that title as follows:

> "The Office Coffee Break, as firmly entrenced in U. S. as pie ala mode is a costly and disrupting mid-morning nightmare to many a company from Norwalk, Conn. to Norwalk, Calif. Some employers have simply thrown up their hands and ducked out of the way of the stampede. But others have set their minds to licking the problem of lost man hours. In the process they have not only taken the bitterness out of the coffee break but have helped to spoon up a new business. coffee catering, to bring the coffee to the employee. Says a Kaiser Aluminum executive in Oakland, Cali-

fornia: "Our department alone is saving $110.00 a month on coffee time. I drink the coffee at my desk while I open the mail, save half an hour, and enjoy it more."

The article then goes on to explain the profitable business which had mushroomed from this post war remnant of war time nerves, and pointed up how in 1958 Schrafts were grossing $4,000,000 a year from "coffee break" service to employees, of other concerns, employed 500 waitresses to deliver 20 million cups of coffee and 15 million pastries a year in Manhattan, Philadelphia, Boston, and Newark; while Radio Corporation of America dispensed 45 gallons of coffee to employees at cost, having outlawed excursions across the street to the lunch room in order to save time.

Among other establishments which profited handsomely from the "Coffee Break", Times referred to the Rudd-Melikan Automatic coffee which grossed 74 million in 1955; had 700 employees and 250 licensed distributors throughout United States, Canada; Eastman Kodak of Rochester having 100 of their machines, which sold 280,000 cups of coffee per month to their employees in its Rochester plant.

This was a happy change indeed, for the coffee growers and merchandisers from the low ebb of coffee brewed in 1950 when an Associated Press report date line, Washington, D. C., May 31st stated:

> "A drop in U. S. coffee consumption of about 20% in the first four months of this year compared with the same period last year . . .",

This drop had growers, processors and merchandisers scared. High prices were given as the reason for the slump.

But the "coffee break" appears to have saved the day, notwithstanding the tirade of Eleanor Roosevelt in her column, "MY DAY" in the New York Post, July 18, 1957, in which among other things, she commented on the United States Public Health Service's official position on cigarette smoking and cancer, by writing:

> **"Even in drinking coffee we manage to indulge to excess. In some ways coffee is as much an American vice as liquor and it can have as bad an effect on the nerves, and can lead to other excesses."**

In this item, Mrs. Roosevelt did a great and beneficial service for her fellowman. Thinking physicians and nutritionists have been courageously declaring against coffee for many years past, but with little heed taken by the public except those members of it whom physicians have advised against the use of coffee because of severe nervousness or stomach or liver trouble.

Coffee is not a supplier of nutritive elements and any physician knows full well that coffee is not a boon to health or it would not be taken away from people who experience nervous tensions, are overwrought, and are generally having a difficult time working, sleeping or playing.

The late Dr. William J. Hall, who before his passing was Director of Organic Chemical Research for the Dow Chemical Company of Midland, Michigan, stated with respect to coffee and those who subjected their bodies to it, in these strong terms:

> **"It is not the caffeine, however, that is harmful, but the cholorgenic acid and trigonelline, both of which are violently toxic. Normal intellectuals do not drink coffee, but subnormal individuals, or those without will power, together with a great herd of morons, are still addicted to this pernicious habit."**

We have pointed up the inefficiency of the coffee habit and how big business has been built on the "Coffee Break" to emphasize the great boon it will be to employee and employer alike to make a drastic change in the present "Coffee Break".

We propose as a boon to American industry, that the break hitherto known and presently known as "The Coffee Break", be renamed, "The Fresh Fruit and Vegetable Juice Break". We further propose that fresh fruit and vegetable juices be made available by the supplier who serves the men and women in factories, plants, etc. or the plants commissaries establish the service themselves where plant facilities permit.

By so doing, manufacturers and business men will be rendering a general health service to their employees which will redound to the good of the employee and employer alike, and the cumulative beneficial effects on the employees would be amazing.

In some few places this is already done on a small scale, as orange juice is made available to employees. May this be extended until the mid-morning and mid-afternoon respite from work is a "Fresh Fruit Juice Break" and may "The Fresh Fruit or Vegetable Juice Break" supplant the now familiar "Coffee Break" which the coffee merchandisers, assisted by clever advertising, exploited to the utmost degree in the leading publications and papers of the country.

We predict that employers of the future will install high powered juice machines to supply a variety of several juices at cost to the employees, to meet the demands of the Juice Break.

One of the most recent condemnations of coffee, which we quoted earlier and would refer you to again, was first widely publicized by Mr. Howard B. Bishop, prominent chemist, educator and Human Engineer, who felt so strongly about the use of coffee and its harmful effects on his fellow humans that he set up an organization about eighteen years ago known as The Human Engineering Foundation, now The Human Engineers, at Summit, New Jersey. The organization has been devoted to, and still is devoted to, educating people on the ills of narcotics with especial emphasis on coffee which Mr. Bishop has always felt was one of the basic problems in most narcotic addiction.

Need we advance any further argument to the recommendation that employers, with, of course, the approval of their employees, approach the problem of substituting fresh fruit and/or vegetable juices to be served instead of coffee, at the mid-morning and afternoon respite from work.

The vending or catering interests already referred could, it would seem, without much of a problem, readily convert coffee dispensers to juice dispensers, and the problem of keeping the coffee hot would be eliminated. Juice made fresh in the morning and refrigerated until serving time at the **"JUICE BREAK"** would save fuel bills, and in bringing about this change for the better health and well being of the hundreds of thousands of employees they are privileged to serve with refreshing live suncooked fruit and vegetable juices.

My lady at home, the housewife of America, will also find the fresh fruit and/or vegetable substitutes for coffee, or "Coffee Ann" at mid-morning or afternoon, a refreshing experience, the cumulative effects of which in a short time will mean better sleep, improve digestion, less irritability, and a sense of general well being never before experienced.

Snack time for the children can also with benefit be "Juice Time".

Any man or woman who has a problem wilth the coffee habit and wishes to break it, can do so by using either freshly extracted fruit or vegetable juices with their meals, instead of coffee; and when obliged to eat out, order orange juice instead of coffee.

And for those who wish to give up smoking, the same formula will be helpful. In addition, whenever the urge to smoke is strong, fresh fruit or vegetable juices in small amounts will bridge the gap. When these are unavailable, a glass of water, or a suck of lemon will help. It is well to carry a lemon for emergencies.

Some of the desire for coffee, in all probability, can be traced to the infantile practice of taking nourishment in solution from the Mother's breast or the bottle provided by cow, goat, sheep or horse.

Most of those who use coffee with either milk or cream or sugar, or both, supply some food elements, to an otherwise insipid drink.

Fresh fruit and vegetable juices satisfy the desire for nutrients in liquid form, with all the difficulties attending the use of coffee avoided. The same applies to tea drinkers, desirous of discontinuing the habit.

"Fruit is a preventive of disease
How much bttter to eat fruit
than conomel or quinine!"

Bronson Alcott, M.D.

"The juice of the blackberry, grape, pear, the raspberry and the strawberry, and even the pineapple exceed whole milk in nutritive value."

John Harvey Kellogg, M.D.,
Founder and Director,
Battle Creek Sanitarium.

CHAPTER, THE SEVENTEENTH

ORIGIN OF FRUIT - GENERAL USES - BEST USES - KNOWN VITAMIN AND MINERAL SOURCE

Our fruits even as our vegetables have received their names from many lands, and our horticulturists have developed many varieties, which bear special supplementary names.

Fresh fruit and fresh fruit juices are a vitalizing food which balance body nutrition and invigorate the life fluids and tissues of the body. They are one of the foods which, with very few exceptions, all of us may use as much as we wish, with great benefit.

Fruits are the primal food of man i. e. the first foods. Originally, all of them were of the wild variety and grew in abundance. During the progress of time, man cultivated many varieties. The names of fruits are derived from various sources, and taken from their shape, country of origin, resemblance to other objects, or the name of the person who first brought them to civilization or developed them; for instance, originally, grapefruit were called Shaddock fruit because Captain Shaddock was the first to introduce them from East Indies to the West Indies.

APPLES:

From Old English: appl, appel; Medieval English: apple; French: Pomme; German: apfel. Fruit of the Pyrusmalus of Natural Order Rosaceae.

Dutch and French origin; cultivated in Great Britain since Roman Occupation. 78 varieties listed as early as 1688 by Ray. More than 2000 kinds distinguishable by 1875. Three classes: First: dessert; Second: culinary; Third: cider. Though many kinds used for all classes.

General Use:

As fruit; pies, sauce, strudel; cider, vinger.

Best Use:

Fruit; as part of fruit salad; as sweet cider; as freshly expressed juice. 8 ounces at a time or combined half and half with grape juice.

Vitamin Source:

A, B, C, G.

Mineral Source:

Calcium, Chlorine, Iodine, Iron, Magnesium, Phosphorous, Potassium, Silicon, Sodium, Sulphur.

APRICOT:

Old English: apricock; French: apricot; Spanish: albaricogne; Latin: prae coque, from prae, beforehand, and to coquere, to cook.

Fruit of Prunus Armeniaca or Armeniaca Vulgaris. Natural Order, Rosaceae. Native of Armenia, and probably India also, where it grows wild.

General Use:

Dried (sulphur); stewed; pies; as fresh fruit, eaten alone.

Best Use:

Sun dried: alone or with nuts; or as part of fruit salad. Fresh apricots: alone; as part of fruit salad; macerated; and as freshly extracted juice alone; or to pour over salad; or 4 ounces at a time alone or combined with 4 ounces of apple juice.

Vitamin Source:

A, C, G.

Mineral Source:

Potassium, Sodium, Phosphorus, Calcium, Silicon, Sulphur, Magnesium, Iron.

AVOCADO:

Spanish: avokado; Mexican: corruption of ahuacote. Alligator pear. Persea Gratissima, Native of West Indies. Considered a delicacy. Natural Order. Laurinae—100 species. All grow in subtropical Asia or America.

General Use:

This is one vegetable generally used healthfully, in its natural suncooked state. It is never cooked.

Best Use:

Alone; or with lemon juice, garlic or onion. Can be made into paste with small amount of lemon juice, with bit of kelp or dulce added, and mixed with lemon juice and water to be poured over vegetable salad. Can be juiced and mixed with equal parts cabbage or celery juice, and a small amount of garlic or onion juice.

Vitamin Source:

A, B, C.

Mineral Source:
Iron, Sodium, Potassium, Calcium, Phosphorous.

BANANA:
Spanish: musa saprentum; Native of tropical parts of the East. Varieties as great as apples.

General Use:
Alone, also sliced with oranges, or baked.

Best Use:
Alone, or with fruit salad, or macerated and combined; 4 ounces banana with equal parts of any berry juice, or apple juice.

Vitamin Source:
A, B, C.

Mineral Source:
Calcium, Phosphorous, Iron, Sodium, Potassium.

BLACKBERRIES:
Rubus vellocus; Belongs to the genus Rubus. Highly prized by country folk for use in diarrhea.

General Use:
Jam, jelly, stewed, pies and with milk and sugar.

Best Use:
Eaten as is or as juice. Several ounces at a time or combined; 2 ounces of each of any other berry juice, or 2 ounces of berry juice will combine nicely with 2 of apple or 2 of pear.

Vitamin Source:
A, C, G.

Mineral Source:
Potassium, Calcium, Phosphorus, Magnesium, Chlorine, Sulphur, Sodium, Iron.

BLUEBERRIES:
Any one of several varities of Vaccunum. Differs from American huckleberry.

General Use:
Preserves, jelly, with milk or cream.

Best Use:
Alone or with salad.

Vitamin Source:
A, B, C.

Mineral Source: ?

CHERRIES:
Medieval English; chera; Anglo Saxon; cyro; LL Ceresia; Latin Cerosus; German, Kuasos. The fruit of the various trees of genus; prunus; the prunus cerasus and the prunus avium. Asiatic origin. Has been so long cultivated. Brought to Italy by Lucullus after he defeated Mithridates at Pontus in 68 B. C.

General Use:
Pies, stewed, for canning, jam, jelly.

Best Use:
Alone; as part of fruit salad; as freshly expressed juice, 6 ounces cherry juice to which has been added 2 of apple juice, or 2 of cantaloupe makes a delightful drink.

Vitamin Source:
A, B, C.

Mineral Source:
Iron, Magnesium, Sodium, Potassium, Calcium, Phosphorous.

CITRON:
French; citron; Latin: citrium; Greek: kitron. Fruit of citron tree natural order Aurantiaceae. Native of North India where it grows wild.

General Use:
Pies, stewed.

Best Use:
Alone; as part of fruit salad. Juiced, for adding to salad and juiced for combing with other juices—2 ounces to any sweet juice.

Vitamin Source: ?

Mineral Source: ?

COCOANUT:
(Cocoanut Palm) cocos micifera. Very beautiful and lofty palm tree, growing to height of 60 to 100 feet, with cylindrical stem, diameter 2 feet. Difficult to determine origin because it is so prolific. Flourished equally on coast of East Indies, throughout trop isles of Pacific and West Indies and tropical America.

General Use:
Copra, oil, puddings, custard, pies.

Best Use:
As part of fruit and nut salad, as a juice. 4 ounces alone or 6 ounces combined with 2 of carrot, or 1 of beet and 1 of carrot. May also be mixed with apple or pear juice.

Vitamin Source:
A, B, G.

Mineral Source:
Calcium, Chlorine, Fluorine, Iron, Magnesium, Phosphrous, Potassium, Silicon, Sodium, Sulphur.

CRANBERRIES:
So called from its being ripe when the cranes return in the Spring. Latin: Vaccunum; the whortleberry. 100 species. Fruit of plant of Genus Oxycocais, natural order, Vaccinaceae. O. Erectus. Native of Virginia and California, Northern and Central Europe and North America. American species: O. Macrocarpees.
Found wild from Maine to the Carolinas.

General Use:
Cooked for cranberry sauce.

Best Use:
Juiced for adding in small amount to fruit salad; or as juice alone or small amount added to apple or grape juice. Not more than 2 ounces or 4 ounces or 6 of apple, or pear, or pineapple juice.

Vitamin Source:
A, B, C.

Mineral Source:
Potassium, Calcium, Phosphorus, Sodium, Magnesium, Sulphur, Chlorine, Iron, Iodine.

CURRANTS:
Medieval English, raisins of Corans: French: raisins of Corinth, from Corinth, the place of origin.

General Use:
Fresh and dried—For making pies, jellies, jams.

Best Use:
Sun dried. Soak in well or spring water until they become

bulbous, then use as part of fruit salad or with nuts.
Fresh—Juice used either alone, 3 ounces parts of other juices, to pour over salad. It is tart and therefore, amount needs to be limited. Good drink is combination of 6 ounces of apple and 2 of cranberry or 5 of pear and 2 of cranberries.

Vitamni Source:
A, B, C.

Mineral Source:
Calcium, Phosphorous, Iron, Sodium, Potassium.

DATES:
Medieval English: date; Old French; date, the fruit of the date palm dacty libera. Latin: dactylus; Greek: daktylos, a date. Literally a finger, so named for its shape.
Origin not known precisely. Has been cultivated in area from Canary Islands through North Africa, and the South East of Asia and India since early antiquity. East India believed to have produced Parent Stock. In Arabia, before oil was the chief source of national wealth; the date reigned as the economic and food staple of that country.

General Use:
(Dried Sulphur). Alone or in baking or candies. Fresh. As staple of meal.

Best Use:
(Sun Dried). Alone, as part of fruit salad, filled with nut butter, or soaked to take up natural water content, then alone or with salad. Fresh, alone or juiced. 6 ounces of date juice to 2 of pineapple, or apple.

Vitamin Source:
A, B.

Mineral Source:
Iron, Calcium, Phosphorous, Sodium, Potassium.

ELDERBERRY:
Medieval English; elder, eldre, ellern, elleri; Greek: Kornbos. Anglo Saxon: ellen, elder: Early Latin: Corymbus, the uppermost part of the flower, from korys, helmet. Of the Genus Sambucus Canadensis: the common North American Elder Bush; Anglo Saxon: ellarn; French: surean; of the natural order Caprifoliaceae.
Known to ancients for medicine properties, Scotland, Europe, Native Europe, North of Africa, Western Asia, the Caucasus, and Southern Siberia.

General Use:
For pies, clear jelly, jam, cordial, concentrate.

Best Use:
Alone as fruit. Can be used in fruit salad; or makes delectable delicately flavored juice. 4 ounces of elderberry juice at a time. This is a very tonic juice and is best used alone, though may be combined with other berries in season or with cantaloupe or watermelon juice.

Vitamin Source: ?

Mineral Source: ?
Iron, Potassium, Sulphur.

FIGS:
Medieval English: fig, fyg; Old French: figue, Persian, figa; Italian: fica, from Latin, ficies, a fig tree, fig. Ficees Carica, the common fig, Ficus Bengalensis, the banian, Ficus Elastica, the

India Rubber tree, Ficus religiosa, the pepue tree. From genus Ficus.
Indigenous to Asia to Asia Minor and Syria, but occurred in wild state in most of countries around Mediterranean. Ease with which it was preserved, made it one of earliest objects of cultivation.
Referred to in Hebrew Scriptures.
The word "Sycophant", derived from Greek—descriptive of one violating laws against exporting of figs. One of principle foods of Greeks and Spartans at public functions.

General Use:
Sun dried; pies, cakes, alone, stewed. As fruit: Alone; several cut and sprinkled on fruit salad. Ripe: alone or with fruit salad or juiced makes heavy liquorish juice.
Fresh: alone or as juice—powerful heavy juice use 4 ounces of juice to 2 of water. Can be combined with apple, or pineapple or berry juice.

Best Use:
(Dried Sun) with nuts, or cheese, or soaked in spring or well water until soft, then chopped with nuts to form part of fruit salad. Fresh; Alone or juiced and used alone with water or other fruit juice, as grape, or apple or any of the berries.

Vitamin Source:
A, B, G.

Mineral Source:
Potassium, Calcium, Phosphorous, Magnesium, Sulphur, Sodium, Chlorine, Silicon, Iron.

GOOSEBERRIES:
Old French: groselle, groeselle; Gaelic: groscia, a gooseberry; Welsh: grws from M. H. C. krus; Dutch: kroes, creep, cresped.
The fruit of the Rubes Grossularia.
Well known to Central Europe.
Same genus and natural order of currants.
Native to France and eastward as far as Himalayas.
In Holland gardens mid 16th century—krusbezie. Flourishes even up to Arctic Circle.
Introduced to America by early Colonists.
Widely distributed west of Rockies; Siberia, Japan and Kilimajaro near lake sources of Nile. Ripe, they contain 6 to 8 percent sugar, also contain malic acid.

General Use:
Usually for pies, jelly. Some are consumed as other berries.

Best Use:
Macerated into paste, or alone, or juiced.

Vitamin Source:
A, C.

Mineral Source:
Iron, Magnesium, Calcium, Phosphorous, Sodium, Potassium.

GRAPEFRUIT:
From Captain Shaddock who first carried it from the East to the West Indies.
Large species of orange citrus decumana.
Native of China and Japan.

General Use:
As fruit, with sugar or with salad.

Best Use:
Alone—without sugar, or with salad or freshly expressed juice, alone or combined with orange, tangerine, pineapple, or apple.

Vitamin Source:
A, B, C, G.

Mineral Source:
Potassium, Calcium, Iodine, Iron, Sulphur, Magnesium, Chlorine, Sodium.

GRAPES:
Old French: grape, grappe, a bunch or cluster of grapes; from O. H. G. crapho, a hook, clasp

General Use:
Alone as fruit, as jam, jelly, wine, pie.

Best Use:
Alone or with salads; as freshly expressed juice. 6 ounces of fresh juice alone or combined, 4 ounces oranges and 4 of grapefruit. The same proportions with pineapple also a delightful combination.

Vitamin Source:
A, B, C, G.

Mineral Source:
Potassium, Calcium, Iodine, Phosphorus, Sulphur, Magnesium, Chlorine, Sodium, Iron.

HUCKLEBERRIES:
Corruption of whortleberry from the Anglo Saxon; Wyrtil a small shrub; and berie, berry. Gaylussacia resinosa. O. H. G. Wusula; German, Wurzel root—berry.
Order of Vaccinanaea.

General Use:
Pie, stewed, jelly, jam, puddings, with milk or cream and sugar.

Best Use:
Alone or in salads and as fresh juice. 4 ounces alone or combined with 2 ounces of other available berries.

Vitamin Source: ?

Mineral Source: ?
Potassium.

LEMON:
Fruit of citrus lemonium, (Latin). Variety of citrus; citries medicia.
Wild stock of lemon native to Valleys of Kumaonano—Sikkim in North West Province of India.
Introduced by Arabs to Sparta in 13th century. 1494 first cultivated in Azores. Cultivated throughout Mediterranean, Spain, Portugal, also California, Florida.
Lemon more delicate than orange.
Flavoring other foods.
Used as addition to other juices.
Became a requirement by Act of British Parliament on all seagoing ships to prevent scurvy.
One lemon gives 2 ounces juice; 13,000 lemons produce 108 gallons.

General Use:
Flavoring cakes, pies, and pastry of all kinds, also ice cream, etc.

Best Use:
As flavoring for other fruit juices to lend tartness; to add to oil for salad dressing and in limited amounts, alone in water or as fresh juice mixed with orange, grape or grapefruit, and to add in small amounts, to make tart, other juices, which may be too sweet.

Vitamin Source:
A, B, C, G.

Mineral Source:
Potassium, Calcium, Phosphorus, Magnesium, Sulphur, Chlorine, Iron.

LOGANBERRIES:
Hybrid fruit produced from a graft of a blackberry bush and a raspberry bush.

General Use:
Pies, jams, stewed.

Best Use:
Alone, with fruit salad; or as freshly expressed juice.

Vitamin Source: ?

Mineral Source: ?

MELONS:
Old French: melon, LL Latin melo (ones) for Latin, melopepo; Greek: melopepon, an apple shaped melon and pepon, a melon). Of gourd family.
Cucumis melo b, the watermelon, citrulus vulgaris.

General Use:
Alone; or sugared or pickled rind.

Best Use:
Alone, or as part of fruit salad; or as juice; 4 ounces alone, or combined with 2 ounces of juice of any sweet berries in season.

Vitamin Source:
A, B, C.

Mineral Source:
Calcium, Phosphorous, Iron, Sodium, Potassium

MULBERRY:
Modern English; mulberie, molberie, marberie; Anglo Saxon: murberie, a mulberry, also mell, from Latin, Mones, a mulberry tree; Greek: moron or moran the black mulberry.
Any tree of the genus morus species most cultivated, morus Nigra, black or common mulberry; morus alba, or white exclusively cultivated as food for silkworm; Morus Ruba largest species native of North America.
Excellent fruit, valuable wood.
Mulberry family (Moraceae). Closely allied to figs, bread fruits, nettle, hops, planes and elm, one vast alliance of monocheamydeous.
Exogens, order of Urticaceae or Ulniaceae which include Dorslenia, almost a fig, etc.

General Use:
Not common use, pies, jam, jelly or preserves.

Best Use:
Alone, with salads or as juice; 8 ounces of juice alone or 6 ounces combined with two of the genuine mountain huckleberry or strawberry—or any tart berry available.

Vitamin Source: ?

Mineral Source: ?

MUSKMELON:
A juicy, aromatic fruit of an earthy herb. Cucumis melo.
Cultivated in many varieties, as cantaloupes, nutmegs, citron, etc.

CANTALOUPE:

From Cantalupe — near Rome where they were first grown in Europe.

General Use:

As dessert for meal.

Best Use:

Alone or in fruit salad or converted into juice 4 ounces alone or combined with 4 of pineapple.

Vitamin Source:

A, B, C.

Mineral Source:

Calcium, Phosphorous, Iron, Sodium, Potassium.

NECTARINE:

Nectarean Latin Nectareus; Greek, nektarolos, from Nektar, nectar, resembling nectar, very sweet and pleasant.
Variety from the peach.
Interchangeable form between peach and almond.
Wild peach and almond found in Afghanistan.

General Use:

As fruit, or stewed, or as pie filling.

Best Uses:

Alone; or used with melon or fruit salad or juice; 6 ounces alone or combined — 4 ounces nectarine, 4 of peach juice or combined with equal parts of any melons.

Vitamin Source: ?

Mineral Source: ?

NUTMEG:

Medieval English, notmuge, nutmuge nut, and Old France — Mugi, Musk from Latin, muscus, musk. Kernel of the fruit of Myristica Moschata, or fragrans.
East Indies, but introduced into Sumatra, India, Brazil and West Indies.
An aromatic — much used in cooking.

General Use:

Alone as dessert.

Best Use:

As a meal, or combined — filled with other fruit as orange, nectarines or apricot, or as part of salad, or juiced and mixed with cherry or elderberry or blackberry, or raspberry juice.

Vitamin Source: ?

Mineral Source: ?

ORANGE

Citrus Aurantium, closely allied to citron, lemon and lime.
French: orange; Italian: orancia; Spanish: naranja, from Arabic narany, an Orange.
Initial N no doubt lost through confusion between it and the N for the article un, una, then in French and a became o, under the influence of or, gold and the golden color of the fruit.
Fruit of the genus citrus, the citrus Amantium.
Native of China and India.
Now cultivated abundantly in United States, Italy, Spain, Portugal, and other parts of South Europe, and also in Azores, Portugal.
Orange found wild in jungles along mountain slopes of Sylhet, Kumaon, Sikkim and other parts of Northern India, and also Nilgiri Hills, Burmese Peninsula and China.

Orange in various languages: Hindustani; Narunge; Sanskret; Narunge; Arab; Narig; Spain, Azores, and Hesperides: Naranga.

General Use:

As salad; juice.

Best Use:

As salad, or alone or as juice — 6 ounces alone or 4 ounces combined with 4 of grapefruit or 6 ounces with a dash of lemon or lime if tartness is desired.

It may well be combined with equal amount of grape — any variety, especially very sweet grapes as muscatel, or white seedless. May also be combined with nectarine, peach or cherry juice. Use but 2 ounces of any of these with 4 of orange juice.

Vitamin Source:

A, B, C, G.

Mineral Source:

Calcium, Iodine, Phosphorus, Potassium, Sodium, Magnesium, Sulphur, Chlorine, Iron.

PERSIMMONS:

American Indian.

A tree and its fruit — Deosp gros Virginiana — Native of Southern states.

Fruit like a plum — when not ripe, very harsh and astringent, but when ripe, luscious and highly nutritious.

Belongs to order Ebenaceae.

General Use:

As fruit alone, or preserves, or pie, or stewed.

Best Use:

Alone or chopped in salad or juiced 3 ounces alone, or combined with 2 of orange, or 2 of apple juice.

Vitamin Source: ?

Mineral Source: ?

PEACH:

French: peche; Italian: pesca, persica from persica, persicium, (malum) the Persian apple.

The fruit of a tree, Prunus Persica, genus prunus. Prunus persica, resemblance to plum is obvious. Others have classed it with the almond; amygdalus while others have considered it sufficiently distinct to constitute a genus of its own, Persica.

Peach as we know it, grows wild no where — not mentioned in historical literature.

Chinese word "too or too" B. C. writings of Confuscius.

Wild almond source of cullwalt peaches, almonds and nectarines.

General Use:

Pies, stewed, jelly, preserves, canned.

Best Use:

Alone or mixed with cantaloupe, or a part of salad or juiced. Using 6 ounces alone or 3 ounces, combined with equal amount of apple or nectarine, or melon juice.

Vitamin Source:

A, B, C.

Mineral Source:

Chlorine, Manganese, Sulphur, Calcium, Phosphorous, Sodium, Iron, Potassium.

PEAR:

Anglo Saxon: peree; Dutch: peer; Danish: paere; French: poire;

Italian and Spanish: pera, from Latin, pirum, a pear.
A tree of the genus Pyrus Communis.
Widely distributed through Europe and Western Asia.
Traces of it in Swiss Lake dwellings mentioned in oldest Greek writings. Cultivated by Romans.
Pear also appears in all Celtic languages. Also in Slavic and other dialects.
The ancients cultivated it on the shores of Caspian to Atlantic.

General Use:
Dried (sulphured), stewed, sauce, jam, canned. Fresh alone or as part of salad.

Best Use:
Alone, as part of salad, juice. 6 ounces alone, or 4 of pear, 4 of apple; or pear with plum, equal parts.

Vitamin Source:
A, B, C, G.

Mineral Source:
Calcium, Chlorine, Iodine, Iron, Magnesium, Phosphorous, Potassium, Sodium, Sulphur.

PINEAPPLE:

A tropical plant, ananos ananassa sativa, cultivated for its fruit.
Of tropical American origin, wild in Mexico, Central America, Guiana, and Brazil.
Evelyn in his diary mentions, tasting pineapple from Barbados, at the table of Charles II. First mention of fruit in English literature. A picture hanging in Royal Horticulture Society of London shows Mr. Rose, the royal gardner presenting the first pineapple grown in England. But pineapple not cultivated in England until 1712.

General Use:
Flavoring, and pies, candy, ice cream.

Best Use:
Alone, as part of salad, as juice — 6 ounces alone; or combined with cantaloupe; or with watermelon equal parts.

Vitamin Source:
A, B, C, G.

Mineral Source:
Calcium, Chlorine, Iodine, Iron Magnesium, Phosphorous, Potassium, Sodium, Sulphur.

PLUM:

Anglo Saxon, plume, L. plumum; Greek, prounon, plum.
The common plum, a species of Prunus Communis.
Native of Caucasus region and Asiatic Minor. From here it was introduced into Europe. Evidence of it in Swiss Lake dwellings.

General Use:
As prunes (sulphur dried); stewed; filling for baked goods.

Best Use:
(Sun dried) soaked in water and eaten raw — and cut in fruit salad.
Fresh: alone, as part of salad, and juice; 4 of plum alone or equal parts of plum and pear, or equal parts of plum and grape.

Vitamin Source:
A, B, C.

Mineral Source:
Chlorine, Iron, Phosphorous, Potassium, Silicon, Sodium, Sulphur.

POMEGRANTE:

Latin pomum, an apple, and granatum, grained. The fruit of Pumica Granatum of the family Lythraceae.
Wild in Afghanistan, N.W. India and the districts of South and Southwest of the Caspian. Wild in North Africa. Referred to in Old Testament and Odyssey.
Sanskrit Name, Dadimta.
Also it is represented in the sculpture of Egypt and Assyria. Probably originated in Persia.

General Use:

Alone, jelly.

Best Use:

Alone; or juiced as flavor with apple, grape, pear; 3 ounces alone; or combined: 6 ounces of apple juice, 2 of pomegrante or 6 of pear, and 2 of pomegranate or 6 of grape juice and 2 of pomegrante.

Vitamin Source:

A, B, G.

Mineral Source:

Potassium, Sodium, Chlorine, Phosphate, Sulphur, Calcium, Magnesium, Iron.

QUINCE:

Old English, coines; French coignasse, a kind of quince from coing, a quence, from Latin colonium, cydonisum; Greek kydonion, melon, a quince from Cydonia, a town on the coast of Crete.
Fruit of Cydonia Vulgaris, of rose family, or the tree itself.
Cultivated in United States and elsewhere.
Native of Persia and Analolia, and perhaps also Greece and the Crimea.

General Use:

Preserves — clear jelly, stewed.

Best Use:

Juiced — as flavor for other juices. 1 to 2 ounces added to any sweet fruit juice as sweet apple, pear or melon.

Vitamin Source: ?

Mineral Source: ?

RAISINS:

French: raisin, a grape; Persian: a razin; Italian: racemo, from Latin, racemus, a cluster of grapes.
Usage dates from antiquity. Referred in Numbers, Chapter V, Samuel XXV-18: XXX:12.
England imported from Spain "Raisins In The Sun" allowed to dry on stems in sun.
Sugar, cream of tartar content.

General Use:

(Dried — Sulphured), Pie, Stewed, dessert or sundried.

Best Use:

(Dried — Sun) Soak in water — use alone or sprinkled in salad. Water in which soaked can be added to fruit juice in the proportions of 2 ounces to any tart juice or 1 ounce to any sweet juice.

Vitamin Source:

A, B, C.

Mineral Source:

Calcium, Phosphorus, Potassium, Sodium, Iron.

RHUBARB:

Old French: rheubarbe; Low Latin — rheubarbarum; Greek:

reon barbaron, the foreign rha or rhubarb; rheon a plant from the Rha, a river now called the Volga, and harboron, foreign, barborous.
Species of genus Rheum, especially of Rhum Rhaponticum, the common pie plant.
Rheum Officinale — Root used in medicine.

General Use:
Pie, stewed, canned.

Best Use:
Juiced: Use in small amounts with other juice to make tart. Add 2 ounces to 6 of any sweet fruit juice, or melon juice.

Vitamin Source:
A, C.

Mineral Source:
Calcium, Chlorine, Iron, Phosphate, Potassium, Magnesium, Sodium, Sulphur.

STRAWBERRIES:
The fruit of any species of the genius, Fragaria of the natural order Rosacae or the plant itself.
Native of temperate climate and are found in Europe, America, and Mountains of Asia.
Fragaria Virginiana — common strawberry of America.
Potenticla Fragariastrum barren strawberry England.
Frojaria vesca — common strawberry of Europe.
Fragaria Chilenis, is the Chilean strawberry.
Alpine strawberry is a variety of Fragaria vesca, sometimes referred to as Fragaria Collina.
A ripe strawberry in fact may be aptly compared to the fruit of a rose turned inside out.

General Use:
With cream or milk and sugar; and served with cold cereal; strawberry short cake; other baked goods; preserves and stewed.

Best Use:
Alone raw, or with cantaloupe, or as part of fruit salad or as juice: 4 ounces alone, or combined with equal parts of any other berry juice or melon or grape.

Vitamin Source:
A, B, C.

Mineral Source:
Calcium, Iron, Manganese, Phosphorous, Potassium, Sodium.

TANGERINE:
From Tangiers, Africa.
A small dark skinned orange. An annual vine-Citrullus, Vulgaris of the natural order cucumbitaceae.

General Use:
Salads or alone.

Best Use:
Salads and as juice alone or combined with orange or grapefruit, or grape or apple juice, half and half.

Vitamin Source:
A, B, C.

Mineral Source:
Calcium, Iron, Magnesium, Potassium, Phosphorous, Sodium.

WATERMELON:
Citrulla Vulgaris.
Largely cultivated in the United States, China, the East Indies, Egypt and France.

General Use:
As dessert, alone or in salads.
Rind is used for citron, pickled and sugared.

Best Use:
As meal or in fruit salads or juiced alone or combined with pineapple or tangerine juice. 4 ounces alone. Combine with equal amount of orange and/or grapefruit, also can be added to other sweet fruit drinks in proportion of 2 ounces to 4 or 6 ounces of the other sweet fruit juice.

Vitamin Source:
A, B, C, G.

Mineral Source:
Calcium, Chorine, Iron, Magnesium, Phosphate, Potassium, Silicon, Sulphur, Sodium.
In the berry family not listed in the general text, we would find these listed as containing the following minerals:
Barberry — Sulphur
Belberry — Sulphur
Capeberries — Iron, Magnesium
Raspberries — Iron
Apparently there has been little research in this field.

FRUIT JUICES

"The value of fruit juices is as yet quite too little appreciated." **"Fruit juices of all sorts are exceedingly wholesome. They contain all the valuable properties from which they are prepared, with the exception of the cellulose."**

" . . . the juices of the blackberry, grape, pear, the raspberry and the strawberry, and even the pineapple, all equal or exceed whole milk in nutritive value. In fact, with the exception of lemon and orange juice, fruit juices, in general, are practically equal to milk in the actual amount of nutriment which they supply."

John Harvey Kellogg, M. D.
Author of 'The New Dietetics'
Director of the famous
Battle Creek Sanitarium

"Fruit is one of the most wholesome and nutritious natural foods, as it purifies the blood, and possesses many other good qualities. It should be eaten raw, as in that state it is most beneficial."

F. E. Bilz,
The Natural Healing Method.

SOME INTERESTING QUOTES FROM A WORLD RENOWNED SCIENTIST

"It seems as though human beings, like animals, could be artificially given certain bodily and mental characteristics, if subjected from childhood to appropriate diets."
"Good health should be natural. Such innate resistance gives the individual strength, a boldness which he does not possess when his survival depends upon physicians.

"The race will certainly not be improved merely by supplying children and adolescents with a great abundance of milk, cream, and all known vitamins. It would be most useful to search for new compounds which, instead of uselessly increasing the size and weight of the skeleton and of the muscles, would bring

about nervous strength and mental ability. Perhaps some day a scientist will discover how to manufacture great men from ordinary children, in the same way that the bees transform a common larva into a queen by the special food which they know how to prepare. But it is probable that no chemical agent alone is capable of greatly improving the individual."

Alexis Carrell, M.D.
Author, (Man The Unknown).

The bees follow nature. It will not require science to rediscover nature. All man has to do is to Return To Nature. Nature's simple live foods, as they grow, the fruits, the vegetables, the grains, the nuts supply all the vitamins, minerals, enzymes, sugars, starches, fats, proteins and whatever else the body requires for health and vitality supreme.

Children will grow into better and stronger men and women by eating wholesome natural foods, foods not primarily intended to add weight to the skeleton or muscles, but rather foods which supply "Life elements" namely the suncooked fruits and vegetables and their freshly extracted juice.

"Vegetables are chiefly used because of their abundance of carbohydrates which they furnish, together with an abundance of alkaline salts, vitamins, and minerals."

John Harvey Kellog, M.D.
Author of The New Dietetic

CHAPTER, THE EIGHTEENTH

ORIGIN OF COMMON VEGETABLES — GENERAL USES BEST USES — KNOWN VITAMIN AND MINERAL SOURCE

Food Vegetable Source —

"The more often we go to the vegetable world for our food, the more often we go to the first, and therefore, the cheapest source of supply. The tendencies of all advanced scholars in thrift should be, to find out plans for feeding all the community as far as possible, from the lap of the earth."

Dr. B. W. Richardson

Vegetables, like fruits, have come to us from many lands, and climes. Some of them are quite common to many countries; each of which has given a name to the vegetable, in the native tongue.

Here you will find such origin of names as are generally known to exist. Some origins have no doubt been lost in antiquity, as others as the various berries of this country have characteristic names, based on shape, appearance, etc.

PART II — VEGETABLES

ASPARAGUS:

Asparagis Officenalis, Old French; esparage; Latin: Asparagus;

Greek, asparagos, Asparagus.
Natural Order Liliaceae
Grows wild, Southwest coast of England. On waste steppes of Russia it is so abundant it is eaten by cattle like grass.
From remote time in high repute because of delicious flavor and diuretic action.
Asparagin: active ingredient.

General use:
Steamed; creamed; boiled, etc.

Best use:
Tips and as far as tender, as part of vegetable salad.
Juiced for juice alone or added to other juices. 4 ounces alone or 2 added to carrot or beet of equal amount.

Vitamin source:
A, B, C.

Mineral source:
Calcium, Iron, Phosphorus, Sodium, Potassium.

ARTICHOKES:
Cynara Scolymus, a plant belonging to Natural Order, Compositae, having some resemblance to a large thistle.
Italy, Cultivated plant: Corciofo domestico.
Wild: Corciofo spinoso.
Jerasulem Artichockes: Helianthus tuberosas, Resembles sunflower.

General use:
Baked or steamed or pickled.

Best use:
Juiced and used alone, or with other juices. 3 ounces alone or combined with equal amount of cabbage or spinach juice.

Vitamin source:
A, B, C.

Mineral source:
Calcium, Phosphorous, Iron, Sodium, Potassium.

BEETS:
Medieval English, bete; Anglo Saxon, bete: from Latin, beta, beet, a plant of the genus beta, Natural Order, chenopodiaceae. Garden varieties are ciela and vulgaris or white and red beet.

General use:
Steamed, or boiled, or baked; for pickling.

Best use:
As part of vegetable salad, also using the leaves, and as juice either alone or mixed with carrot or celery. Tops should also be juiced, 2 ounces alone or combined with 4 ounces of carrot, or equal amount of cauliflower, cabbage or celery.
With beet juice, use also an ounce or two of beet top juice. When making the beet juice, it is wisdom to always use one-half the tops in the juices; whenever beet juice is mentioned in combination it includes the beet top juice.

Vitamin source:
A, B, C, G.

Mineral source:
Calcium, Chlorine, Iron, Potassium, Sodium, Phosphorus, Silicon, Sulphur, Magnesium.

BEAN STRING:
Phaseolus Vulgaris; The common name of the French Bean.

BEAN LIMA:

Phaseolus Cunaeus.

The name comes from Phaseolus lunalus. A city, the capital of Peru in South America.

General use:

Boiled or steamed.

Best use:

Chopped raw in salads, or juiced — juice to be added to other juices, or alone. 4 ounces alone or combined with 2 of carrot, and 2 of cabbage, or 2 of celery.

Vitamin source:

A, B, C.

Mineral source:

Calcium, Iron, Sodium, Potassium, Phosphorous.

BROCCOLI:

Italian broccoli sprouts: pl. for broccole, a sprout, cabbage sprout, derived from brocco; L.L. Brocca, a sprout or sharp pointed thing.

Brassica Oleracea, resembling cauliflower.

General use:

Steamed or boiled, creamed.

Best use:

Chopped in salad; juiced for juice alone, or to add to dressing for salad. 3 ounces alone or combined with 2 ounces of carrot, and 2 ounces of beet, or equal amount of any leafy vegetable juice.

Vitamin source:

A, B, C.

Mineral source:

Calcium, Phosphorous, Iron, Sodium, Potassium.

CABBAGE:

Medieval English; cabbish; old French, cabus, cabache, cabbage. Italian; capuscio, a little head from, Capo — Latin: Caput, head. Popular name for some species of Brassica Oleracea. Kinds most cultivated are the common cabbage, savoy, the broccoli and the cauliflower.

Origin: A plant found near sea coast of England and continent of Europe. Alphi de Condelle considers it to be really descended from the two or three allied species growing wild on the Mediterranean Coast.

FAMILY OF CABBAGE:

Jersey cabbage, channel Islands, Couve, Tronchuda, Portugal, Cauliflower, broccoli, broccoli sprouts, Kole Rabi.

General use:

Steamed or boiled — cole slaw, pepper cabbage.

Best use:

A part of vegetable salad, or as juice. 6 ounces alone or combined with 2 of carrot, or equal amounts of cabbage and carrot or 4 ounces of cabbage, 2 of mustard greens and 2 of carrots or beets, or 4 of cabbage and 4 of cucumber.

Vitamin source:

A, B, C, G, U.

Mineral source:

Calcium, Chlorine, Iron, Sodium, Potassium, Sulphur, Phosphorus, Magnesium, Silicon, Iodine.

CARROTS:

Of genus, Daucus. Natural order, Umbilliferie.

French: carot(t); Latin: Carota; Greek: Karoton, a carrot, Improvement of the species is thought to have begun in Holland. Introduced to England beginning Sixteenth Century.

Juice Food Conscious people please note:

As early as 1902 it was stated: when carrots are boiled in water there is usually a considerable loss in nutritive value consisting of sugar and other substances extracted by the water. If the whole carrot is cooked or cut in large pieces the loss is less. (New International Encyclopedia).

General use:

Baked, boiled, shredded.

Best use:

Juiced alone, or with vegetable salad, or as juice. Forms good base of almost all combinations . . . either leafy or tubers or roots, or cooked with peas, etc.

Vitamin source:

A, B, C, G.

Mineral source:

Calcium, Chlorine, Iodine, Iron, Magnesium, Manganese, Phosphorous, Potassium, Silicon, Sodium, Sulphur.

CAULIFLOWER:

Latin, Caulis, cabbage, a stem, and flower.

A variety of Brassica Oleracea.

Highly esteemed as table vegetable.

General use:

Boiled, steamed, creamed, or baked.

Best use:

As part of raw salad, as much as desired, and as juice to be added to carrot, beet, etc. 6 ounces alone or equal parts with beet, or carrot, or parsnip, and a bit of parsley, or steamed lightly with carrots, and peas or beans.

Vitamin source:

A, B, C.

Mineral source:

Calcium, Phosphorus, Iron, Sodium, Potassium.

CELERY:

French: celeri; Italian: seleri; Latin: selinon, parsley; Greek: selenon, a plant Apuim graveolens belonging to natural order; umbelliferoe.

Grows in wild state, beside ditches. Possesses valuable duiretic properties.

General use:

Alone or as entree, or garnish, or mixed with potatoes, also stewed.

Best use:

Alone, as part of salad and as fresh juice with equal parts of cabbage or carrot, or beet or pepper or squash juice.

Vitamin source:

A, B, C, E.

Mineral source:

Calcium, Iron, Magnesium, Potassium, Sodium, Sulphur, Chlorine, Phosphorus.

CUCUMBERS:

Medieval English: Cucumber, Cucumber; L.L.: Cucumei; Latin: Cucumeris, a cucumber, any of genus of plant, genus cucumes, natural order, cucurbitaceae.

Aimus sativus — common cucumber.

Common to all parts of India, China, Persia. Much esteemed by

ancient Pliny XI x 23, the Emperor Tiberusis was supplied with them daily, winter and summer.

General use:

Alone with salt, or in salt water or pickled, eaten with bread or as part of salad.

Best use:

Raw alone, as part of vegetables as juice. This is one of the most amazingly refreshingly distinctive tasting juices in the entire category of juices. Use 6 ounces, alone or mixed with cabbage or carrot, or combined in proportion of half and half with any of the tubers as carrots or beets, etc.

Vitamin source:

A, B, C.

Mineral source:

Chlorine, Iron, Magnesium, Potassium, Silicon, Phosphorus, Sodium, Calcium, Sulphur, Iodine.

CORN ON COB: Either Sweet Corn or Young Field Corn

Anglo Saxon: corn, a grain seed, corn; Dutch: koren; O H G. koren; Icelandic and Sweden: korn, Goth, kaurn, grain.

Seed of the cereal, Zea Mays or Maize.

General use:

Boiled, steamed or roasted, creamed, or as succotash.

Best use:

Cut off raw from cobb, scrape cobb to get milk. Eat this way or juice corn — can be used with carrot and/or beet juice, or lettuce, or endive juice in the proportion of half and half, 3 ounces of each.

Vitamin source:

A, B, C.

Mineral source:

Calcium, Phosphorous, Iron, Sodium, Potassium.

DANDELION:

Tacaxacum Dens Leonis, a perenniel herb belonging to suborder, chichoracese, of natural order compositioe.

Milky juice contained in all parts of plant. Tacaxicon, has diuretic properties.

A wide range of growth: found in Europe, Central Asia, North America and Artic Region.

General use:

Cooked: or roasted for coffee and wine.

Best use:

A leafy part of salad or as juice. This is a decidedly flavored vegetable. Not more than two ounces of juice should be combined with any other juice as carrot, or beet, or celery, or cauliflower.

Vitamin source:

A, B, C, G.

Mineral source:

Potassium, Sodium, Chlorine, Calcium, Phosphorous, Magnesium, Sulhpur, Silicon, Iron.

EGGPLANT:

Solanum Melongena, a plant allied to the tomato.

General use:

Baked, stewed, fried in batter of egg and bread crumbs.

Best use:

As eggplant stew; Grated raw in salad or juiced, and mixed with equal parts of celery or beet juice.

Vitamin source:

A, B, C.

Mineral source:
Calcium, Phosphours, Iron, Sodium, Potassium.

ENDIVE:
French endive; Spanish: endibia; L.L.: intibia, from Latin, intibus, intybus, endive, a plant cichorium endivia, natural order, compositae.
Native of Asia.
Origin: Egypt and East Indies.

General use:
As part of salad.

Best use:
Baked, and also juiced, 4 ounces alone, or combined with beet or carrot or cucumber, or celery.

Vitamin source:
A, C, G.

Mineral source:
Calcium, Chlorine, Iron, Magnesium, Phosphorous, Potassium, Sodium, Sulphur.

GOURD:
Name given to various plants of natural order, cucurbitaceae but more strictly belonging to genus cucubita. Monoeceous, trailing herbs with long succulent stem. Many varieties under cultivation. Abundant in India; Origin there. From earliest ages cultivated in areas of that region and also North Africa.
Romans were familiar with some varieties.
Probably came to America before to Europe. Some probably indigenous to America. (Dr. Asa Gray).

General use:
Cooked, steamed or baked and inner part used for pies, etc. or with milk a sort of porridge.

Best use:
Stewed or raw pulp for mixing with leafy.... vegetable puice in proportion of 4 ounces of gourd to 4 ounces of celery or carrot, or cucumber.

Vitamin Source: ?

Mineral Source: ?

KALE:
Brassica Oleracea var ocephala, various forms of which are known as broecole, marrow cabbage or collard.
Kail (Scot, kale, kail, Gaelic, Cal, cabbage, Anglo Saxon, cawl, cawel, from Latin, caulin, a cabbage stalk, cabbage, stalk or stem of a plant.

General use:
Steamed or baked or sometimes with salads. 6 to 8 ounces juiced alone or combined as 4 ounces with equal amount of celery, cabbage or cucumber: or combined 4 ounces kale — 2 ounces of beet or carrot or persnips, or 2 ounces of cauliflower or spinach.

Vitamin source:
A, B, C.

Mineral source:
Calcium, Iron, Phosphorus, Potassium, Sulphur.

LEEK:
Medieval English, leek; Anglo Saxon: leac, a leek. A plant, Allium, Porrum, a variety of Allium ampeloparsum, produced by cultivation.
Of Eastern origin since it was cultivated in Egypt in the days of the Pharos and subsequently introduced into England 16th Century. Romans made great use of it. Native of Switzerland also.

General use:
Flavoring soups and other wishes, and as garnish and relish.

Best use:
Alone with whole wheat bread, or as a flavoring in small amounts with other juices. 1 ounce of leek to 5 or 6 of carrot or beet, or parsnip or 1 ounce added to 5 ounces of any leafy vegetable juices.

Vitamin Source: ?

Mineral Source: ?

LETTUCE:
Medieval English, lettuce; Latin; latuca, from lac, lactre, milk socalled from its milky juice. Lactus sativa, Common salads lettuce. Natural Order, compositae, lactusa.
Native of East India.
From remote antiquity, cultivated in Europe.

General use:
For serving under cheese or fruit. For garnishing meats, and starches in Pennsylvania Dutch Country served with a warm dressing with bacon.

Best use:
Raw in simple salad as with tomatoes, or with any tubers or other greens. As juice alone or 3 ounces combined with 3 of carrot and 1 of beet or with 3 of pepper or 3 of cabbage.

Vitamin source:
A, B, C, E, G.

Mineral source:
Calcium, Iodine, Iron, Magnesium, Phosphorous, Potassium, Sodium, Chlorine, Sulphur.

MUSHROOMS:
Old French: mouscheron, Agaricus Compestris, L, mouseron, a mushroom, from mousse, moss.
There are few more useful more easily recognized, or more delicious member of the vegtabl kingdom than the common mushroom.
Found in all parts of the world. In Tierra del Fengo, the natives live almost entirely on mushrooms. In Australia many species of boletus are used by the natives, and the mylitta Australis is commonly called native bread.

General use:
Steamed, creamed, sauce, fried, with onions and as garnish for meat, etc.

Best use:
Chopped in salad. When very fresh one ounce of the juice added to carrot, or celery, or beet, or cauliflower or lettuce.

Vitamin source:
B, C.

Mineral source:
Calcium, Phosphorous, Iron, Sodium, Potassium.

ONIONS:
French: orgnon; Latin: Unio (-onta) lit. oneness, then a kind of single onion, also a pearl, unus, one. A plat, allium cepa.
Native probably of India or Egypt. In both countries has been cultivated since remote antiquity.

General use:
Steamed, boiled, fried, and raw with sandwiches.

Best use:
Sliced raw in whole wheat bread sandwiches; chopped in salads, cheese and juiced. A flavoring vegetable juice. Add I ounce to

5 ounces of any leafy vegetable juice, as pepper, cauliflower, or cabbage, or 1 ounce to 7 of any of the tuber juices, or cucumber, or tomato.

Vitamin source:
A, B, C, G.

Mineral source:
Calcium, Chlorine, Iodine, Iron, Magnesium, Phosphorous, Potassium, Sulphur, Sodium.

OKRA:
Hibiscus esculentus.
Comes from West Indies.
Used in soups and pickled.
Yam, Sweet Potato.

General use:
Cooked, steamed, creamed.

Best use:
Cut in salad and juiced. Use juice 3 ounces alone or combined equal amounts of celery, or 1/3 each of okra, cabbage, or celery, or carrot or beet, or cucumber.

Vitamin Source: ?

Mineral Source: ?

PARSLEY:
Italian petrosello, petrosellino; Old French: persie; Latin: petroselinum; Greek: petroselinon, rock, parsley; petros, rock, selinon, parsley.
Corum Petroselinum or petroselinium sativum.
Grown widely for table in United States and Europe.
Annual Biennial — South Europe.

General use:
As garnish for meat sauce, cooked in various foods and as flavor for soups and garnish for salads, cheese, etc.

Best use:
In salad and juiced for use with other juice.
This is a high powered and very important vegetable. Use 1 to 2 ounces only at a time with 4 to 6 of any leafy vegetable juices; or added to combination of leafy and root juices — as either 3 of cabbage, or cauliflower, or broccoli, or endive or lettuce, to 3 of carrot, or beet, or parsnip, or cucumber, with 1 ounce of parsley juice.

Vitamin source:
A, B, C, E.

Mineral source:
Calcium, Chlorine, Iron, Magnesium, Phosphorus, Potassium, Sodium, Sulphur.

PARSNIPS:
Medieval English, parsenip, pasnepe, from Old French, pastenaque, pastenade. French, pastenade, panais, Spanish, Portuguese; Italian, pastinaca; from Latin, pastinaca; parsnip, from pastinum, sort of two-tined bibble. Peucedanum. A genus of annual, biennial and perennial herbs. Natural order: Umbelliferae. Common parsnip; Peucedanum sativum. Native of Europe and Southern Asia. Pastinaca Sekakul, native of India, Syria, and Egypt and cultivated in Levant.
Roots are aromatic, mucilagenous, sweet, and slightly acrid Cultivation has rendered them bland.

General use:
Boiled or baked, scalloped, or in soup, both leaves and roots.

Best use:
As part of salad or use as base juice the same as carrots, 4 to 6

ounces alone or 4 ounces with equal amount of carrot, or beet, or cauliflower, or pepper, or broccoli. Roots are deliciously sweet, can be added to celery, cabbage, or such juices desired sweetened.

Vitamin source:
B, C.

Mineral source:
Calcium, Phosphorous, Iron, Sodium, Potassium.

PEAS:
Medieval English: pese, pees, a pea, pl. pesen. Plant of genus Pisum. Natural Order Leguminosae.
Origin: Known to Theophractus. Occurs in Albanian Torgu — Found in Lake dwellings of Bronze Period — Known to Aryans — probably brought from Greece or Italy.

General use:
Steamed, or boiled, or soup, or baked.

Best use:
A part of vegetable salad, also juiced 3 ounces alone, or 2 ounces combined with 4 of pepper or lettuce or cabbage or cauliflower or any leafy vegetable.

Vitamin source:
A, B, C.

Mineral source:
Calcium, Phosphorous, Iron, Sodium, Potassium.

PEPPERS:
Anglo Saxon: pipor, peppor; from Latin: piper, Greek: pepere, Sanskrit, pippata.
Any plant or fruit belonging to genus piper of the family piperaceae.

General use:
Steamed and fried or stuffed and baked.

Best use:
As part of salad and juiced. A deliciously refreshing juice with exotic taste. 6 to 8 ounces alone or combined with any high powered juice, as 6 of pepper and 1 of water cress, or 1 of dandelion, or 1 of parsley, or can be combined with equal parts of any leafy or root juice, 4 ounces each.

Vitamin source:
A, B, C.

Mineral source:
Silicon, Calcium, Phosphorus, Iron, Sodium, Potassium.

POTATOES:
Common plant, Solanum tuberosum.
Spanish: potato batata, the name originally applied to the batata or sweet potato and said to be native of a Haytian word.
Native country; Andean Region; now a staple food in most temperate countries.
Origin: Spaniards.

General use:
Baked, boiled, fried, creamed, mashed, scalloped, flour, etc.

Best use:
Baked, with salad or diced in salad. Or juiced: 4 ounces alone or 4 ounces equal amount of pepper, or celery, or any leafy vegetable juice.

Vitamin source:
A, B, C.

Mineral source:
Chlorine, Phosphorous, Potassium, Sulphur, Calcium, Iron, Sodium.

PUMPKIN:

Old French: pompom, from Latin L. pepo; Greek: pepon. A kind of melon literally, something ripened by the sun.
A well known plant, cucumbita Pepo.
Native of Astrakhan. Now cultivated throughout India, and also in United States. Much used as food.

General use:

Boiled, and used with milk baked in pies, fried.

Best use:

Baked and in salad and juiced. Some people like this uncooked even as squash. It can be used alone 5 to 6 ounces at a time or combined with an equal amount of pepper, or celery, or 1/3 squash, 1/3 cabbage, 1/3 beet, or carrot.

Vitamin source:

A, B, C.

Mineral source:

Calcium, Phosphorous, Iron, Sodium, Potassium.

RADISH:

A plant of the genus Raphanus, particularly Raphanus Salivus. Natural order; cruciferae. A common garden plant of many varieties, the roots of which are eaten raw as a relish.
Probably a native of Asia.
Horse radish a near relative.

General use:

A relish, or with bread and butter or garnish of meat or salads.

Best use:

As relish part of salad, and juiced using leaves also. Highly flavored, not more than 2 ounces alone or added to any leafy vegetable juice. Adds zest to any juice of equal amounts of tuber and leafy vegetable juice.

Vitamin source:

A, B, C.

Mineral source:

Potassium, Sodium, Chlorine, Sulphur, Phosphorus, Calcium, Magnesium, Iron, Iodine.

SPINACH:

French: espinoche, espenace; Italian: spinace; Spanish; espenaca from aspanaka, from Persian, Spinach, spinach.
Spinacia oleracea.

General use:

Steamed or boiled, or baked.

Best use:

Crushed or macerated. Also in salad and juice. 3 ounces alone, or combined. 2 ounces spinach, 4 of carrot and 3 of beet, 1 ounce combined with any leafy vegetable juice and tubers.

Vitamin source:

A, B, C, E, G.

Mineral source:

Calcium, Iodine, Iron, Magnesium, Phosphorous, Potassium, Sodium, Sulphur, Chlorine.

SWISS CHARD:

French: Carde; Latin: Carduus a thistle, an artichoke. Plants of white beet transplanted, producing great tops having, large white shoot. Related plants. Esteemed as table delicacy.

General use:

Boiled, steamed, salad.

Best use:
In salad, and for juice. 5 ounces alone or combined, 4 ounce to 4 of any leafy vegetable juice, as cabbage, cauliflower, broccoli, or with pepper or combined with equal amounts of carrots, parsnips or beets.
Vitamin source: ?
Mineral source: ?

SALSIFY: (Oyster Plant)
Salsify, a plant of the genus, trago phogon so-called from the taste when cooked.
Spanish Oyster plant — the Seolymus Hispanicaun.
General use:
Boiled or fried, or in soup.
Best use:
In salad, or juiced.
3 ounces alone or combined with equal amounts of celery, or cabbage, or lettuce and 2 ounces of beet or carrot.
Vitamin source: ?
Mineral source: ?

SQUASH:
America, Indian, Asquash, Fruit of vine of gourd family, of genus cucurbita, resembling pumpkin. Cucurbita meloppa.
General use:
Baked, boiled, fried.
Best use:
Baked, and juiced. Makes one of the most delightfully refreshing juices; preferably the green squash. Juice whole squash. 6 ounces alone or combined with carrot in the proportion of 5 of squash, 2 of carrot and 1 of beet, or combined with equal amounts of any leafy vegetable juice, or cucumber.
Vitamin source:
A, B, C.
Mineral source:
Calcium, Phosphorous, Iron, Sodium, Potassium.

TOMATOES:
From Mexican, Tomatl.
Lycopersicum esculentum, a plant of the night shade family. Native of South America. Taken to Europe in early 16th century — extensively cultivated in the South.
General use:
Stewed, slice with lettuce, creamed or baked, canned, or soup.
Best use:
Sliced in salad. Alone, or as juice — 6 to 8 ounces alone or combined with equal amounts of cucumber or celery or cabbage, or broccoli, or lettuce, or endive juice.
Vitamin source:
A, B, C, G.
Mineral source:
Calcium, Chlorine, Iodine, Iron, Magnesium, Phosphorous, Potassium, Sodium, Sulphur.

TURNIP:
Medieval English, turnip probably from French tour or English, turn, in the sense of turned, that is, round, and Anglo Saxon, nap, a turnip, from Latin, napus, a kind of turnip.
The common name of the root, Brassica Campestris or Rapa, a cruciferous biennial plant, much cultivated in both field and garden for its esculent root, also the plant itself.
The turnip is a citgen believed to have been derived from a fleshy

— rooted mustard-like plant, originally native to temperate Europe where it is cultivated ante dating Freek and Roman times.

General use:

Steamed, or boiled with potatoes, and in soup.

Best use:

Grated as part of vegetable salad or juiced. 4 ounces alone with 1 ounce of the juice of the turnip tops, or 5 ounces combined with any leafy vegetable juice as cabbage, or celery, or broccoli, or cauliflower, or pepper.

Turnip green juice may be used in the proportion of 2 ounces to 6 of any leafy vegetable juice or the same amount added to carrot or beet juice.

Vitamin source:

A, B, C, E, G.

Mineral source:

Calcium, Phosphorus, Chlorine, Sodium, Sulphur, Magnesium, Potassium, Iron.

While I have suggested combinations based on experience, these are by no means arbitrary. The basic guiding factor in mixing juice is not the so called balance of minerals or vitamins, but rather the "taste appeal" — natural juice foods which taste good combined will be satisfactorily handled by the digestive and assimilative systems.

CHAPTER, THE NINETEENTH

SALIENT POINTS TO REMEMBER IN PURCHASING, STORING, AND PREPARING FRUITS AND VEGETABLES FOR SALADS AND JUICES

PURCHASING FRUITS

In purchasing fruits for making juices, be sure to get fruit that is firm, well colored, and not over ripe.

Texture of the skin of those fruits to be juiced without removing skin as, for instance, peaches, plums, grapes, nectarines, tomatoes, apples, pears, etc., should be firm and smooth and not indented or wrinkled. The latter indicates the fruit is old and that dehydration has advanced, and therefore, the juice will be of inferior quality; sugar content may have increased up to a certain point of ripeness, but vitamins, minerals and enzymes have been altered, downward in value.

CHERRIES and SMOOTH SURFACED BERRIES OF ALL KINDS, as elderberries, gooseberries, blueberries, huckleberries must be of firm appearance, and never show any depression which is indicative of dehydration. By the time shrivelling has developed, which anyone can detect as age, the cherries or berries have undergone much dehydration; but mere depression, lack of that firm look, is the prime indicator.

In the case of drupe berries, as strawberries, raspberries, blackberries, whortleberries, and mulberries, freshness is judged by the firmness of the little drupes themselves rather than the berry as a whole. The drupe must be full and bulbous and manifest a lustrous freshness. Brown dry spots on the drupes indicate age.

PURCHASING VEGETABLES

In marketing for vegetables, be alert to the difference between really fresh vegetabls and freshly watered vegetables. Watering is a process used by produce men mostly for greens as spinach, lettuce, endive, escarole, beets with tops, mustard greens, turnip tops, parsley, dandelion, water cress, though it is also applied by some to beets and carrots with tops, to refresh stock for "eye appeal". It does temporarily give an appearance of freshness to the vegetables, but has added nothing to the product but water.

GREEN LEAFY VEGETABLES

In selecting these see that the leaves are firm, crisp and uncurled at the edges, and never drooping or wilted. Fresh leafy vegetables will have an alive appearance. The stalk, as of the broccoli or cauliflower where it is cut off, will be reasonably firm and fresh; will not be pithy or dry.

THE CURLY PARSLEY, which has tight foliage must be a rich green. Off color, toward yellow indicates it is old. The Italian parsley is easier to judge as its leaves wilt quickly when it begins to age. Again, both kinds can be judged by the ends of stems where it was originally cut off, though merchandiesers can readily and repeatedly cut off stems to make it appear fresh. Parsley with its roots, stays fresh longer, of course. Both the roots and the leaves make excellent juice. The former is mild, the latter strong. Mixed and used in small quantities, added to other juice as carrot, or celery, or beet, they are delicious.

WATER CRESS is not so much a commodity, as parsley and dandelion. It is not as heavily stocked as other vegetables. The easiest way to tell its age is curling of the leaves and slight discoloration toward lighter shade of green toward yellow, especially the edges of the leaves.

DANDELION wilts quickly and age is readily discernible as it has no stem to speak of to lend sustenance to the leaves; it wilts rapidly. The more it is wilted, the less valuable for juices.

LEEKS, SCALLIONS and SPRING ONIONS, need less scrutiny than some of our other vegetables. Their age can be judged by the off shade green (dull) of the outer layer of the unique umbricated wrapper they wear; lack of firmness of the tubular shaft is an indication of aging. Then too, the ends

are tell tale if they are old. If they are not clipped off, they will have begun to dry and wilt; if they have been newly cut off one can see teh white fluid has dried on the ends where they are cut off, this is more so on the onion than leek. If tops have begun to curl they are not fresh.

PODDED VEGETABLES

STRING BEANS and PEAS must be considered somewhat differently to evaluate freshness.

In the case of ordinary peas, the jacket or pod might be rather poor looking, having lost a couple of shades of green and still the contents remain good because of the protective covering of the pods and the peas inside will show little or no sign of dehydration or deterioration. The reason is that the pod has protected the fleshy pea. These can be hulled and used without compunction. Merchandisers take a loss to dispose of this merchandise, which has lost in appearance, and here is one case where the consumer or customer profits, for he gets good quality food at a good saving.

SUGAR PEAS or PEAS IN THE POD, however, where the pods are ground with the peas for juice, the pods must appear vigorously fresh, of good rich green color, and firm, to insure high quality juice.

STRING BEANS, which are used whole, for juicing, must be firm, full colored, whether of yellow or green variety, and must snap with a crackling sound when broken in two. Beans can also be judged by any attached bean stems. If any of these are discolored, or darkened, the beans are not fresh and will not make the best juice.

ASPARAGUS: The freshness of asparagus can be judged in the main, by three specific factors: 1. The flowers, foliage, or what housewives refer to as, the tips look firm and crisp. 2. The stems are firm to the touch and will not easily depress on squeezing and are white below running into green all the way to the flowers. 3. Another factor to determine freshness is by the butt of the stalks where the shafts have been cut. If these are dry and turning brown the asparagus is old and has lost much in value.

BULBS (ONIONS and GARLIC), present no trouble for the consumer, as they are "long keeping", and do not readily deteriorate. Only when they show indentations from drying out (This can be observed by the touch), are they deteriorated and less rich in vitamins, minerals, and enzymes. Onions are not good if they are depressed on either bottom or top center area or have a darkened circle in this area. When the garlic pearls are too dry on the ends, they are usually old. Onions and garlic should be kept in a cool place for storage.

THE TUBERS, as beets, carrots, parsnips, and turnips show their freshness by the firmness of the root ends or tendrils and also by the rotundity of the tubers themselves. If any of the tubers reveal any shrivelling of the jacket whatsoever or dryness, or if the root tendrils at the ends of beets, carrots, parsnips, turnips, etc. are dry or shrivelled, they have begun to dry out. Storage should always be in a cool place.

POTATOES, SWEET POTATOES, YAMS belong to the tuber family also. They are not difficult to judge as to freshness of usability. The new potatoes of both varieties, as they come in, of course, reveal their newness. As potatoes become older, the skin takes on a darker hue, and if they have been kept where it is both cool and dark they will keep well. Refrigeration is not necessary.

If it has been too warm, there will be evidence of sprouting from the eyes of the potato. Remove these sprouts promptly. Potatoes kept where it is sufficiently cool do not sprout for a long time. If potatoes are not sprouted promptly, they will begin to lose their substance, which goes into the sprouts, and will grow softer and lose in weight and rotundity and firmness, and hence value. The next state of deterioration after sprouting, is the loss of firmness as though the pulp of the potato was moving away from the skin, and if dehydration of substance has been rapid, there will be the characteristic shrivelling or wrinkling of the skin which has become less moist and more tough.

At home, since potatoes are usually purchased in greater quantity than other vegetables, they present a problem of storage. They should be stored in a cool place, but not refrigerated.

Merchandisers are supposed to display a notice, (usually red letters on white background), "Artifically colored", when yams are so treated.

The coloring is certified, but this does not insure against the possible harm therefrom to a sensitive person or the cumulative effect on a strong person. Do not buy colored tubers or color added citrus fruits. Insist upon "color free fruit" and you will get it. Remember, your supplier wants to serve you as you want to be served. He will give you what you demand, and pass along your objection to the wholesaler who, in turn, will take heed.

In the meantime, keep eyes open when you shop. Be alert. Demand what you want. Let your supplier know that you "know" what is best for yourself and family. He will respect you for it.

Get your fruits and vegetables as fresh and untreated as you can. We are living in an age where alertness and independence of thought "nutritionwise" is your best health insurance.

The fresher the fruits and vegetables are the better the salads, and the richer the juices they make.

Supplying the demand of the consumers, (his customers), is the retailer's business. He is earnestly dseirous of getting what you want, for it is good business for him to do so. Therefore, make your wishes known; and tell your friends to do the same. This chain reaction works, and it is the only protection the housewives of America have against the permissible tolerance allowance the Federal Government sanctions for fruits and vegetables.

I have seen a whole town change in a few months from, "color added", oranges to, "no color" added, simply by a campaign of demand.

Ten years ago, the women of England banded together to fight the contamination of foods, high prices, and anything they felt had an unfavorable effect on life and home. They called their organization The Housewives League, and their voice is now heard in Parliament, or wherever it needs to be heard for better food and liberty, the right of free choice and freedom and dignity of the individual under God.

This is the only way you can fight adulteration of our food until we have fruit and vegetable markets which guarantee only organically raised fruits and vegetables, free from all insecticides.

This has already been accomplished in Zurich, Switzerland, where it has grown into a profitable business. Doctor Ralph Bircher, director of the famous Bircher-Benner Sanitarium, in Zurich, Switzerland, where fresh suncooked fruits and vegetable juices, along with the fruits and vegetables themselves, have occupied a prominent place in the dietary system, wrote a most revealing article under the title of "How This City Got Better Food", for Organic Gardening and Farming Magazine, in the May, 1956, issue.

He told the remarkable story of how Mr. G. Duutweiler conceived and founded the Organic Food Merchandisers System of chain stores, known as "Migros", to supply that city of 420,000 (canon population 800,000), with a plentiful supply of organically or biologically grown vegetables, which they refer to as "Preferred Vegetables", and said the idea was growing by leaps and bounds and spreading to other canons.

We have a few such stores in America, but not enough to effect general retail business. The original: Guaranteed Or-

ganic Food Market, Alex C. Burleigh, Proprietor, located at 236 West 10th Street, in New York City. The competition of such an effort creates interest, yet it is evident from the Swiss enterprise referred to that it becomes widespread. When it happens here, growers and packers will awaken to the growing health consciousness of the general public and fall in line, and farmers too will return to more natural agriculture.

CLEANSING VEGETABLES AND FRUITS OF SPRAYS

All vegetables should be washed in plenty of cold water—not steeped or soaked, but washed fully. If there is any suspicion of heavy use of sprays, allow the vegetables to be soaked for five minutes in water, to which a teaspoon of salt has been added, to enough water to cover the vegetables. In any case, rinse well in several waters. A tablespoon of fresh lemon juice instead of salt, added to the water, is also helpful.

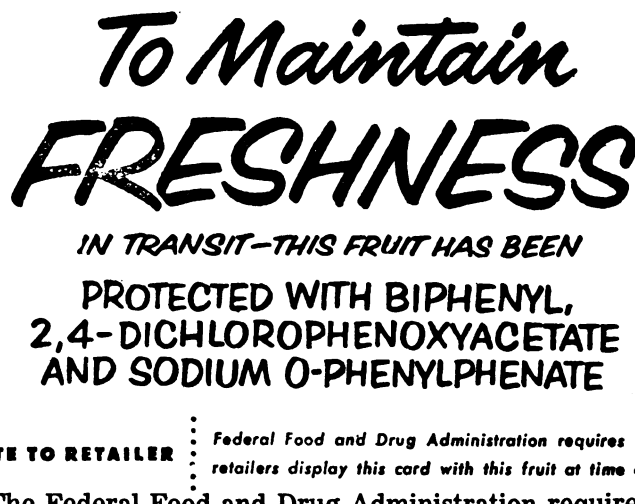
In the case of fruits where heavy oleaginous materials are used with the sprays to make them stick to the smooth surface of the fruit, it is helpful to make suds of mild soap (ivory or castile) and tepid water and wash the fruit therein. The suds dissolve the oil which is used to make the insecticide or spray adhere to the fruit, and remove it. Then rinse well with more warm water and then thoroughly with cold water. The whole washing process must be performed quickly, and the fruit must not be allowed to soak in the soapy water.

The Food and Drug Administration keeps a look out on interstate shipments reasonably well, but it does not have power to inspect or control vegetables raised and sold within the State. Most States have laws governing sprays, however, enforcement may be lax because of lack of personnel.

It is well to make sure, when buying from local farms or roadside stands, where the food is being sold, direct from farm to consumer, to inquire if the vegetables or fruits are heavily sprayed. This is not an unreasonable request, especially if you are a regular customer.

There are many local farmers who deplore the heavy use of insecticides and pesticides, and use as little as possible.

TO AVOID BEING COMPELLED TO PURCHASE AND EAT FOOD CHEMICALLY TREATED TO MAINTAIN FRESHNESS LOOK FOR THIS GREEN LETTERED WARNING DISPLAYED AT YOUR FRUIT AND VEGETABLE MARKET.



The Federal Food and Drug Administration requires that it be posted.

If it is not publicly displayed, ask WHY?

STORAGE OF FRUIT AND VEGETABLE JUICES

A few points are in order where it becomes necessary to store juice.

Fruit and vegetable juice food preparation is very simple when a modern extractor is used. Most of our juice therapists recommend that the juice should be made fresh daily. In general, this is a good plan to follow; but I believe it has to be conditioned by the availability of good vegetables and fruits. In other words, markets do not always have good quality fruits and vegetables. Not all places get their produce daily; and so it is wisdom to buy more when the fruits and vegetables are at their best, and make enough juice for a couple of days.

While it is usually more practical and economical to prepare juices, fresh, there are times when this is not convenient, or again, there may be some juice left over.

Actually, when juice is made, it should be either used soon or quickly stored.

The reason for this should be clear. We all know how rapidly fruits and vegetables begin to deteriorate when they are once separated from their source of growth, and they de-

teriorate still more rapidly when the skin or pericarp is removed or the fruit or vegetable is cut. To some extent, we have referred to this under the heading of Purchasing Fuirts and Vegetables.

If the oxygen in the air so affects vegetables in their whole state, it must be concluded that when the tissues of these have been cut, and the "Vitamin-mineral-enzyme rich" juice extracted, the effect of oxygen on it must be rather pronounced, and therefore, promptness in the preparation of juices and care in storage is necessary to preserve the maximum good of the product.

Whether stored for a shorter or longer period, the juices should be placed preferably in glass Mason jar or vacuum seal, or container hermetically sealed against the entrance of air while in storage to prevent deterioration.

Do not use exposed metal of any kind or storage of juice, as steel, aluminum or enamel; and, of course, plastics or treated cartons, as containers, should not be used for storage purposes. Not enough is known about the reaction of plastics for continuous storage. The same applies to paraffin or otherwise treated cartons. Too little is known about reactions of these substances to the juices of vegetables.

Recently there appeared an announcement to the effect that a scientist had discovered that milk kept in a wax treated container was responsible for cancer in rats. Much more research needs to be done to be conclusive, of course, but certainly the safest way to use plastics or wax containers is for immediate use or the most temporary use, and not for storage of foods.

While it is a delight to use the fresh suncooked fruit and vegetable juices promptly when they are made, there is no more loss in proper storing than in other foods. It is unwise however, to pour out juice and let it stand before using as one does milk or coffee.

The probabilities are that in the not too distant future, engineers will devise a method to prevent the juice from coming in contact with light or air. This would be no great engineering task. All that is required is for the juice to be discharged into a sealed amber colored glass or jar, and immediately stored, from which it could be poured as wanted.

This would be akin to the method of milking, proposed, devised and perfected by Professor Oscar Erf of Ohio State University. His method provided that the milk did not come in contact with air or light. The milk from the cows was conveyed to sealed containers; from which the milk was taken for use as needed.

VITAMIN-MINERAL-ENZYME REPLENISHING PERIODS FOR THE TRAVELER OR WHEN OBLIGED TO BE AWAY FROM HOME WHERE JUICE FOODS ARE NOT AVAILABLE

When necessity compels one to partake of foods for a few days or more, which are not as one would like them, as for instance when on a vacation or a visit and the environment does not provide the better foods, or the fresh fruit and vegetable juice foods, it is advantageous, upon returning home to take a few days on A VITAMIN-MINERAL-ENZYME ENRICHING DIETARY, or REPLENISHING PERIOD, during which juice foods are used exclusively.

The most likely juices for the purpose would be carrot, and celery, and of the fruits, apple, or grape.

Upon arising 6 ounces apple juice.

Ten A.M.—six to seven ounces Celery Juice.

Noon time—six ounces of carrot and 2 ounces of potato, juice.

Two P.M.—4 ounces of celery, two of carrot.

Five P.M.—4 ounces of celery and two of carrot.

Eight P.M.—four ounces celery juice.

If fruits are in season, whatever are available for the purpose, could be used alternating with the vegetable juices.

The Keystone of Healthful, Happy Living Is Simple Food As Close To Its Natural Source As It Can Be Conveniently And Pleasantly Used. Fresh Fruit And Vegetables And Their Juices Are The Most Natural, Convenient, Economic And Tasty Foods Available To Modern Man.

There Is But One Temple In The World — That Is Man. Good Food Supplies The Bricks Of The Temple — Oxygen, Good Air, The Mortar — And Good Spirit The Motivating Force. None Can Be Neglected Without Disastrous Results.

CHAPTER, THE TWENTIETH

OPINIONS OF PRESENT DAY PHYSICIANS AND NUTRITIONISTS ON RELATIONSHIP OF FOOD TO HEALTH CONFIRM FINDINGS OF ANCIENTS AND PIONEER MEDICAL REFORM MEN

In the foregoing chapters, I have given you some of the romantic history of suncooked food, and the dawn and progress of the fresh fruit and vegetable juice food era which we are entering today.

We quote various pioneers in "The Juice For Health Crusade", which pre-dated the "Juice Therapy Period", the latter of which was headed by such pioneers as Bircher-Benner, M.D., Ralph Benner, M.D., N. W. Walker, D.Sc., R. D.

Pope, M.D., and H. E. Kirchner, M.D. to better picture the Rediscovery of Fresh Fruit and Vegetable juices for "Health For All".

We took you back to Doctors Jackson, Olcott, Nichols, Page and Lahman, of the Nineteenth Century, and introduced you to the pioneers in suncooked viands in the early part of the present Century, namely, George Drews, Eugene Christian, Louise Lust, Julian Thomas, William Richter, and also presented the sound statements of men like Otto Carque, Henry Sherman, Philip M. Lovell, H. Donald Bulkely, and Sir Arbuthnot Lane.

WHAT IS MAN'S FOOD? - IS FOOD OUR CHIEF MEDICINE?

The ancients believed that food is our chief medicine; and it probably was intended to be, and still is, though these statements have to be qualified.

We find foods extolled as medicine in the most ancient of manuscripts of practically all religions.

Probably the most familiar passage having to do with food is the Biblical passage:

> **"And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat (food)."**
>
> **Genesis 1:29.**

While the above passage has no implication that the food provided for man was his medicine, it appears evident that in earliest times man required no medicine if he adhered to the principles of nutrition laid down in the passage quoted. As prehistoric man evolved and moved along the ladder of living, he probably observed that food was all he needed internally besides the oxygen of the air to keep him well. Food became a burden apparently and created illness when man complicated his food by cooking it, which lead to overeating.

By the time man had reached a point where the facts of medicine, which had been devised to meet his needs, were correlated into an art, we find that the Father of Medicine, Hippocrates, quite definitely considered food the best medicine for he said:

> **"Leave your Drugs in the Chemists Pot If Thou Cannot Heal the Patient With Food."**

Those lines of wisdom were confirmed by the utterance of another great physician Sir Robert McCarrison, M. D., in the present century in these profound words:

> **"Of all the medicines created out of the earth, food is the chief."**

All these people set the pace for the generation which followed and carried the crusade for better nutrition forward into the present day.

It is from the works of present day men, I would now quote, to tie in the findings of the past with the present. Research laboratories have confirmed or are confirming the empirical findings of the ancients and the practical experiments of the men of the last century and later, to complete the intriguing story of the value of fruit and vegetable juice foods which, in essence, was so well expressed by Dr. George Drews in 1907, when he stated:

> **"The water of fruits and vegetables, that is fruit and vegetable juices are laden to the utmost of capacity with organic salts and sugar."**

So once again all science has accomplished is to prove that Nature was right in the first place.

As you read on, you, too, will readily see that all which has gone before is here verified. As each year passes more confirming information accumulates.

As an introduction I would quote Doctor Harvey W. Wiley, Father of the first Pure Food Law designed for the protection of all people with no loop holes for allowing arbitrary levels of additives or chemicals. The same rigid law is sorely needed today, though to the credit of the Food and Drug Administration it should be said that their task is momentous and your support and patience is needed.

Diet A Factor In Every Disease?

> **"I believe I would not be far out of the way to say that Diet may be said to be a factor in every disease to which man is heir"**
>
> **Harvey W. Wiley, M. D.**
> **Father of the Original Pure Food Law of the. U S. A.**

Three Pounds of Green and Yellow Vegetables and Fruit Daily

> **"When nutritional knowledge is sufficiently wide spread, people will consume up to three pounds of green and yellow vegetables and fruits daily.**
>
> **Henry C. Sherman, Ph. D.**
> **Prof. In Columbia University,**
> **Author of "Chemistry of Food and Nutrition".**

We actually use less than one third the daily per capita amounts of green yellow vegetables Dr. Sherman recommends. The most ready way to compensate for this low intake of vegetables is to use freshly extracted vegetable juices freely before or with our meals or whenever convenient to do so, as at "Coffee Break" time, T. V. snack time, and for the school children after school "bites".

DISEASE AND NUTRITION

"All diseases are caused by chemicals, and all diseases can be cured by chemicals. All the chemicals used by the body, except oxygen, which we breathe and the water which we drink, are taken in through food. If we only knew enough all diseases could be prevented, and could be cured through proper nutrition.

Tom Douglas Spies, M. D.
106th American Medical Society Meeting, 1957.

We receive the vitamins and minerals and enzymes from the fruits and vegetables through the process of seeding, growth, and fruition, or photogenesis in assimilable form. ....

HEALTH - NUTRITION

"The future health of our nation depends upon nutrition and the greatest factor in prevention of disease is proper nutrition. And proper nutrition begins only in fertile soil.

Joe D. Nichols, M. D.
President, National Food Associates.

MALNUTRITION THE ONLY MAJOR DISEASE

"The fact is there is only one major disease, and that is malnutrition. All ailments and afflictions to which we may become heirs are directly traceable to this major disease.

Dr. C. W. Cavanaugh,
Cornell University.

Fresh fruit and vegetable juice foods are the first food factors in the elimination of malnutrition in America. Whole grains are the next.

THE HEART AND FOOD

"Adequate nutrition is a basic factor in prevention and treatment of heart and artery disease."

Chas. F. Nelson, M. D.,
Nelson Research Foundation.

"Adequate Nutrition" includes live foods, foods rich in enzymes, vitamins and minerals. Fresh fruits and vegetables and their extracted juices abound in all three.

MISDIRECTED ENERGY

"There are too many socially minded people spending too much time and too much energy planning how to get more care for more sickness. All the energy should be directed into teaching our people the importance of a good diet, and to see that the eating habits are changed to conform to what we already know about nutrition.

Jonathan Forman, M. D.,
Pres. Friends of The Land.

As we have said before, the emphasis must be on health and its acquirement, its preservation, which is disease prevention.

DOCTOR DIETITIANS OR DIETITIANS DOCTORS

"If the doctor of today does not become the dietitian of tomorrow, the dietitian of today will become the doctor of tomorrow.

Dr. Alex Carrel,
Rockfeller Institute of Medical Research, Author of "Man The Unknown".

FOOD AND MENTAL HEALTH

"A properly functioning brain must be constantly bathed by a proper bloodstream. Over half our hospital beds across the country are filled with mentally sick people. How can we expect sound health mentally when we consume so much highly processed foods from which essential nutritional elements have been removed or destroyed?"

William Howard Hay, M. D.

Dr. Hay was the originator of the Hay Diet System, and was one of the strong voices against processed food for many years.

The most practical way to avoid or counteract the highly processed foods Dr. Hay warns against is to include in the daily diet an abundance of fresh fruits and vegetables and their essence, the juice foods they provide.

Fresh fruit and vegetables as nature grows them, and freshly extracted fruit and vegetable juices provide all the life giving vitamins, minerals and enzymes.

Fresh fruits and vegetables, direct from their source in their suncooked state, and freshly extracted fruit and vegetable juices provide the essential nutritional elements to insure a properly constituted blood stream which is reflected in health and mental stability.

NATURAL FOODS PREVENT OVER EATING!

"It is through ignorance that the community is surfeited with unsuitable foods.
People who eat natural foods never eat too much."

Dr. Ralph Brenner, Director,
Bircher-Brenner Clinic,
Zurick, Switzerland.

HEALTH - DEPENDENT UPON GOOD FOOD

"The most important factor in the maintenance of optimal health is the highest state of nutrition. The maintenance of the best possible state of nutrition depends upon good food. The quality of one's food depends upon the selection of excellent food stuffs, which have not been spoiled in harvesting, storage, processing, preserving or serving . . ."

Jonathan Forman, M. D., Editor,
Ohio State Medical Journal.

LIFE A FORCE

"The truth is that life is not material, and the life force is not a substance. Life is a force - electrical, magnetic - a quality, not a quantity - and if we start there we can understand a lot of things about man and his works, his orders and his processes."

Luther Burbank,
Naturalist and Plant Wizard.

DIETETIC AND HEALTH HABITS SCORED

"Long surgical experience has proved to me conclusively that there is something radically wrong with the civilized mode of life, and I believe that unless the present dietetic and health customs of the white nations are re-organized, soil decay and race deterioration are inevitable."

Sir Arthur Keith, M. D.

We would close these quotes by two which date back over fifty years, but which we believe most worthy as a parting salvo in this effort to direct the attention of all people to the intrinsic health value of foods in their sun cooked state, as Mother Nature brings them to us.

Observe how these physicians of vision picture so vividly the "live elements" known today as the enzymes.

ORGANIC PLANTS AND ANIMAL SOURCE OF LIVE FOODS

"The plant can make organic matter out of inorganic elements, just this the animal cannot do at all. The things of legs and locomotion, of spine and speech, can build his organic walls only out of organic bricks ruthlessly ripped from existing walls of other animals or plants."

Edward Curtis, M. D., Nature and Health, Henry Holt and Co., New York 1906

ENZYMES LIVING CELLS FOR LIFE

"The principal purpose of eating is to obtain from what we eat the living cells that compose it, that we may receive these living cells into our organization. The more of these cells we get into our system in a natural state the better."

Julian P. Thomas, M. D., New York 1903, Author of "The Advantages of Raw Food."

"All should be acquainted with the special value of fruits and vegetables fresh from the orchard and garden."

Ellen G. White, "Counsels on Diet and Foods

National Health and Security Demands Fresh Fruit and Vegetable Juice For Every Man, Woman and Child In America.

The Family That Serves Juice Foods Every Day Preserves Health And Helps Prevent Disease.

Only "Living Foods" assure complete nutritional health. Living foods are those which have not been cooked. Sun-cooked foods are living foods.

Fresh Fruit and Vegetable Juices are the Life's Blood of Nature — They provide the Elixir Vitae For the Human Body.

Life Forces of the Body Come in Large Measure From the Foods we eat.

THE SUPREME FOOD FACTOR

As the blood is the elemental life fluid giving vitality to the body, so is the juice of fruits and vegetables the fluid the body, so is the juice of fruits and vegetables the vital nutrient fluid food of these.

MAN'S STRUGGLE FOR SURVIVAL HAS BEEN INTENSIFIED THE FURTHER HE HAS REMOVED HIMSELF FROM THE BENEFICENCE OF NATURAL SUNCOOKED FOOD. THE SUPREME ESSENCE OF LIFE IS IN THE FOODS THE ALL WISE CREATOR ENDOWED THE SOIL TO PRODUCE FROM THE SEED OF THE TREE AND THE PLANT. THESE ARE THE FRUITS, INCLUDING THE NUTS, AND THE VEGETABLES, INCLUDING THE GRAINS.

AS MAN RETURNS TO NATURE AND DEMANDS SUNCOOKED FRUIT AND VEGETABLES AND THEIR JUICES, SO HE WILL BEGIN TO RECLAIM HIS NATURAL HERITAGE OF ABUNDANT HEALTH AND HAPPINESS SUPREME.

The Authority of Nature

Is Confirmed by

The Experience of Man;

The Laws of Science Have

The Habit of Changing;

The Laws of Nature Never Change.

OTHER WORKS BY JESSE MERCER GEHMAN, N. D., M. N.
NUTRITIONIST AND CONSULTING HEALTH SPECIALIST

Infant Feeding And Its Relation To Infant Mortality
Proper Food For Polio Prevention
The How Of Muscular Development
Living To-Day For Tomorrow
Suncooked Food Simplified
Our Sun And His Goodness
Dr. Physical Culture
Infant Care
Smoke Over America
When Diabetes Strikes
When The Liver Complains
Raw Food Simplified
Nature's Highway To Health
I Let The Sun Do My Cooking
Author Of The Newspaper Columns;
How To Enjoy A Longer Life
Health For Victory Box
Little Life Lessons For Abundant Living
Originator Of The Radio Series Health Waves
Beoma House - P. O. Box 1744 - Paterson, N. J.

JUICES ARE THE MOST READILY AVAILABLE EFFICIENT AND PLEASING FOOD FACTORS IN AN AGE WHEN WE HAVE BECOME WEDDED TO THE IDEA THAT ONLY PROCESSED AND NEATLY PACKAGED GOODS ARE GOOD FOOD.

THE BEST FOOD COMES DIRECTLY FROM NATURAL SOURCES, NAMELY: THE GARDENS, THE FIELDS, THE ORCHARDS.

FOOD AS SUPPLIED BY
FRESH VEGETABLE AND FRUIT-JUICE
ARE THE ANSWER
IN THIS NUTRITIONALLY
DEFICIENT ERA

GROWING BEST FOODS IS CREATIVE MEDICINE

"MORE LIVES CAN BE SAVED FOR THE EFFORT EXPENDED DOLLAR FOR DOLLAR, BY GETTING THE VERY BEST NUTRITION FOR ALL OUR PEOPLE THAN WE CAN EVER GAIN WITH CURATIVE OR PREVENTIVE MEDICINE . . . CREATIVE MEDIA MUST BE FOUNDED ON GROWING THE BEST FOODS, THUS ALONE CAN WE CREATE REAL HEALTH FOR OUR PEOPLE.

Dr. Jonathan Edwards,
President, Friends of The Land

THE RAW SUNCOOKED FOOD AND ITS IMPORTANCE FOR HEALTH AND DISEASE

Kristine Nolfi, M.D.
Humlegaarden, Denmark

"RAW (SUNCOOKED) FOOD IS LIVE FOOD AS IT IS HANDED TO US BY NATURE.

"WE ALL KNOW THAT LIFE ON EARTH IS COMPLETELY DEPENDENT ON OUR SUN. IF WE HAD NO SUN, THE EARTH WOULD BE WITHOUT LIFE

"VITAL FORCE IS THEREFORE IDENTICAL WITH SUN ENERGY

"BOTH MAN AND BEAST USE PLANTS AS CARRIERS BETWEEN THE SUN AND THEMSELVES.

"A FRESH RAW VEGETABLE DIET IS SUNLIGHT NOURISHMENT.

"FRESH, RAW VEGETABLE FOOD POSSESSES THE HIGHEST NUTRITIVE VALUE, AND THIS CANNOT BE INCREASED OR IMPROVED. ANYTHING ELSE, SUCH AS HEATING, DRYING, STORING, FERMENTATION, OR PRESERVATION, WILL JUST TEND TO REDUCE AND DESTROY THE VALUE.

"THE BEST FOOD IS THEREFORE COMPLETELY NATURAL FOOD WHICH HAS NOT BEEN SUBJECTED TO DENATURATION OF ANY KIND."

These quotes are from Dr. Nolfi's work "MY EXPERIENCE WITH RAW FOOD."

Notes

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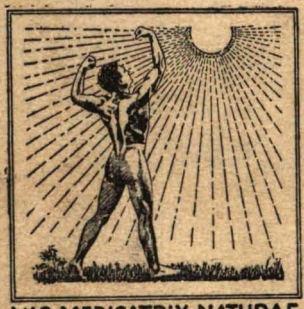

VIS MEDICATRIX NATURAE