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MAN VERSUS TOOTHACHE

by **DR. GEORGE W. HEARD**



Dr. George W. Heard

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INTRODUCTION

All worthwhile knowledge that is in the possession of civilized man started first on what is termed a hunch. Observation of a series of apparently coordinated phenomena has led men into wondering, surmising and searching for more material to support his already growing assumption.

This book is an account of just such a procedure—which has led the author, Dr. Heard, to the point where he feels that he can offer his readers suggestions which followed through would open the way to a more healthful enjoyment of living, and relieve physical and mental suffering. Having lost his own health, the author, by will power alone—the fortitude to carry out painstakingly such self-imposed restrictions in diet and living habits as seemed to aid in the recovery of his health—gained not only health but a new vision of life. His ideas should be studied by all those who are suffering from ill-conceived and ill-advised habits—such as can be corrected only by the individual practice of self-control, a control which cannot be imposed by another person from the outside. In short, it is the individual's own efforts at self-discipline which can bring about lasting good for himself.

When I first read this work, I was inclined to advise that all personal references be deleted—that the book be confined to observations made and conclusions drawn therefrom. But, on a second perusal, I saw that it was those very personal references which added charm and interest: here is set down the life work of a man.

The mere record of the author's lifelong observations and conclusions, printed in a book, would not be read so widely or prove so valuable to the many potential readers.

I am personally grateful to the author for having set down so clearly and concisely the rules for living a happy and useful life. I trust that many readers will glean from this book helpful suggestions that will be of immense value to them in their own quest for a happy, useful life.

C. A. Pierle. Canyon, Texas. September, 1951.

DR. HEARD'S STORY

THE TOWN WITHOUT A TOOTHACHE

by Dr. George W. Heard

FOREWORD

Since my discovery created a worldwide sensation when Dr. Edward Taylor of Austin announced it to the dental profession some 10 years ago, uncounted millions of words have been written and published concerning "The Town Without a Toothache."

Except for occasional articles in professional journals and nutrition magazines, none of that vast volume of matter—some of it scientific but far more of purely speculative—has come from my pen.

Yet, I began writing more than 20 years ago and some inner urge has kept me at it ever since. I have kept a record of facts established by my systematic inquiry into the cause and prevention of tooth decay. Too, I have set down at length my inferences and conclusions from those facts. But I have devoted more words to my ruminations—thoughts that would come to me, often in the middle of the night, about the nature of things, the Creator's gifts to man, and the challenge every man faces to use those gifts wisely. Invariably, I felt a compulsion to put those thoughts on paper.

Consequently, I have written and accumulated enough manuscript to fill several volumes. Still the thoughts keep coming to me and I *keep* writing them down. It is perhaps just as well that I have not felt an equivalent urge to publish my writings. However, since this furore began, I have recognized an obligation to my public—to tell them in my own words and from my point of view, what I have discovered about the prevention of tooth decay, and what my findings could mean to a generation which would accept and heed them. In these pages, I have tried to relate that story for the average reader. He is, I believe, interested in possessing sound tooth in a sound body—for himself, but particularly for his children.

In this rather sketchy account of my life and professional career, and more sketchy analysis of my theories, I earnestly hope I have told the reader enough to arouse his curiosity—so that he will investigate further and discover for himself what miracles of body-building the right sort of diet, followed day by day, year in and year out, can work for himself and family. If this book will only start the reader on the high road to a sound body through proper diet and good health habits—and that naturally would spell sound teeth—my purpose in writing it will have been served.

For the story as I have told it, I am greatly indebted to Dr. Edward Taylor, director of dental health for the Texas State Board of Health. Except for Dr. Taylor's kindly interest in my discoveries and his two-year scientific study of Hereford school children to prove them, the world would not yet have heard about the "Town Without a Toothache."

Likewise I owe a great deal to Dr. C. A. Pierle, research chemist at West Texas State College, Canyon, who set me on the right trail when he advised: "Watch your milk drinkers." During my long quest for the facts behind immunity to tooth decay, his wise counsel helped me over many a tough spot.

Too, I have found a valuable guide to the scientific truth which I was seeking in Dr. Weston A. Price's manual, "Nutrition and Physical Degeneration." For some years the author was my friend and counsellor.

Besides, I have found support for my theories as to the importance of trace minerals for building healthy bodies and sound teeth in the published reports of Arnold P. Yerkes, farm research director for International Harvester, Chicago; and Dr. Arthur J. Mitteldorf, physicist with Armour Research Foundation, Chicago—whose conclusions I have cited. The complete spectograph analysis of Deaf Smith County wheat by Twining Laboratories, Fresno, California, also has lent my theories valuable support.

My thanks are due the Hereford townspeople whose pictures appear in this volume. They consented to pose as living exhibits of "The Town Without a Toothache."

My friend, Mr. Austin Tims, editorial writer for San Antonio Express, has gone through my voluminous writings; selected material that was suitable for this narrative, and translated my professional patter into plain talk for the general reader.

All those friends and helpers have had a part in the making of this book; but its faults and shortcomings are my own. I have done my best, but I do not claim to be scientific; I have stated facts only as I see them.

(Signed) Geo. W. Heard.

September, 1951. Hereford, Texas.

PART I.

IN WHICH I GET MY BEARINGS

CHAPTER 1.

I GROW UP ON AN ALABAMA FARM

The world I was born in was still pioneer country. It had not changed much from Washington's and Jefferson's time. It was backwoods, two days' journey by oxteam over a winding red clay road to the nearest railroad town.

When I came upon the scene my native state, Alabama, was still reeling under the blows of a devastating war, its cotton industry badly crippled, its business in confusion, while down at the State Capitol the carpet baggers were running things.

Except for the talk it created among the menfolk when they got together at the meeting house or at a singing or dance, that troubled state of things did not concern Tallapoosa County folks. Life there went on as before. The friendly land—cultivated farm, pasture and woods—gave the people their bread and meat, their homespun clothes and their log-cabin homes, exactly as it had fed, clothed and sheltered their fathers and grandfathers before them.

I was born there (October 21, 1867) the son of William F. and Zilla Heard. I came in the middle of seven boys and six girls. My father and mother were strong and healthy. Both lived more than 90-years.

In 1870 my father bought the 260 acre Clay County farm where I grew up. Until all 13 children had grown up and left home, there having been 3 deaths, that farm fed and clothed the Heard family. My parents were of the Hardshell Baptist type. My father's word was his bond; but he never went into debt for anything. Whatever he needed, we made on the farm or did without except maybe an axe or hoe.

The land fed us and we lived like a royal family. Through about nine months of the year, the big garden was yielding mustard greens, English peas, snap beans, turnips, cabbage and collards. The sweet potato patch always made a good crop to last all winter. Watermelon time lasted all summer. Fall was a golden season when sorghum, wild grapes, muscadines, persimmons, pawpaws and chestnuts were ripe. It took a lot to feed 13 hungry mouths, but I cannot remember a time when our kitchen table was not heaped up and running over with good things to eat.

For our clothes, my mother and her house girl would card the wool sheared from our own sheep; spin the wool into yarn on our spinning wheel; then weave the yarn into homespun, jeans or linsey on our loom.

The Heard farm always had plenty of horses, mules, milk cows, steers, sheep and hogs, flocks of chickens and geese. There were always plenty of young animals coming on and every year we had some to sell.

When I was a boy I went barefoot practically the year around and liked it. But I never did like the idea of wearing a long shirt (like a girl's dress) with no pants. In those days you had to be a big boy before you could wear britches.

Life would have been just about perfect for me when, at long last, I had grown into britches, except that my mother would let me wear the precious garment, so difficult to make, only an hour or two each day. One time I vividly remember when the time came to change back to my long shirt, I could nowhere be found. At last big Sis spied me, as far under the big house floor as I could crawl. Mother called brother Tom from the field to pull me out. When Tom had reached me, I asked: "What's the matter, Tom?" Is Ma going to make you pull off your britches, too?"

Until he was in his 70's, my father would sign his name by making his mark. Yet, he was an educated man, schooled in life's university. He had made for himself and taught us boys a motto like David Crockett's: "Always be sure you are right, then take your stand and, no matter what happens, stick to it."

My father was not a churchgoer. In all my 20 years on the home farm, he went to Sunday School only once or twice. Every summer after the crops were laid by, the Heard house was thrown wide open for the three-day Baptist camp meeting.

Then every tree in the big oak grove around the house had a horse or mule, a team or yoke of oxen hitched to it. The chorus of whinnies, neighing and braying mingled with the lowing of oxen. I vividly remember the Hardshell Baptist meetings—the preacher's exhorting; the people singing and shouting and on the footwashing day penitents swarming up to the mourner's bench. Too, I can recall Uncle Jake Gipson, in his one-horse wagon drawn by a steer, on his way to preach at some church.

Though he had none of his own, my father wanted his children to get book-learning. Every summer till cotton picking time, or for about two months, he would send us to pay school. I vividly remember my first day in school. We had one textbook, the Blue Back Speller. The teacher had us spell 'cat,' 'dog' and 'ran.'

Every morning we children would set out about sun up to walk our three miles to the schoolhouse. It was a converted log cabin with a wide fireplace at one end and two small windows in each wall, with no sashes, to let in the daylight. For benches, we had split pine logs with sturdy peg-legs. When the sun was getting low we would trudge home again.

During the day the master would drill us in spelling, reading, writing and arithmetic. At noontime we had a long recess when we could play "stink-base", "anti-over" and "Miley-bright".

The next summer we would have a different teacher who would give us the same lessons over again. I did manage somehow to get ahead in the speller as far as 'incomprehensibility.' I mastered it so well I could spell down the school on Friday afternoons. I got ahead in reading, also, through McGuffey's 5th.

The best teacher who ever came there was old Bill Jenkins. He was known as a shiftless fellow and an alcoholic; but when I was in the second reader, he taught us how to read out loud in a manner I never forgot—how long to pause for comma, semicolon and period, to give rising inflection for a question and how to scan poetry. I can recall going to winter school only two terms. I left school at 17 and did not go back until I was 23 years old. Just about the time I was ready to leave school somebody started a drive to raise money for a new school house. My father gave the largest donation, a tidy sum for those days, forty dollars.

When I was a small boy, I developed a curiosity concerning the world, however it is put together and what makes it tick. Now in my 84th year, I have that same curiosity. On the home farm, when my father had a particularly tedious job for his boys to do, he would always say to them: "Don't take George along. He will be asking so many questions that you never will get anything done."

Until I had grown up, the home farm was about the only world I knew. Maybe once every fall I would go with my father when he took a wagon load of cotton to market at Talladega, 25 miles away. That was a 3 day journey, one day going by mule team, a day in town and a day driving home with the things we had bought. It was a memorable day at our house when we got our first brass lamp and mother got her first cook stove. When I visited Mount Vernon (Virginia) the home of Washington some years back, the kitchen fireplace reminded me of mother's cooking outfit when I was a boy. The chains on which the pots were strung to cook Farmer Washington's dinner were still hanging there.

The Heard farm was more level than the average for the Alabama uplands, but rocky and stumpy. We cultivated cotton mostly with the hoe and bulltongue plow. Crabgrass, weeds, briars and bushes grew fast. The soil was thin and poor. It took several acres to produce a bale of cotton. As a growing boy I dreamed a lot of the big world outside. I wanted to do great things, but I had only vague ideas as to what I'd make of myself. One day when my oldest brother and I were hoeing in a particularly rough spot, I suddenly said to him: "Fayette, I never, never would make my home in such a country as this." But, not knowing what else to do, I stayed on for 10 years after that.

CHAPTER 2.

I STRIKE OUT ON MY WAY

When I was 19, going on 20 years old, I suddenly decided to visit my brother Fayette, who lived at Baleyton, Cullman County, about 100 miles north of the old home farm. For some years I had nursed the urge to better myself. Now I had got the idea into my head that my oldest brother, who had a family and a farm of his own could help me get a start. Anyhow, I could stay at his house until I had found myself a job.

It was before daylight on January 2, 1887, that I left home to catch the train at Talladega. A younger brother hauled me to the railroad depot, 25-miles away, in a two-wheel cart. As I sat in the waiting room, I heard a telephone ring for the first time in my life. Fascinated, I watched the station agent talk into a box on the wall: "Number 10, going north, on time."

For my first journey out into the world, I had only the fourteen dollars that my cotton patch had brought me. But when he came to tell me goodbye, my father slipped a five-dollar bill into my hand. Then my mother came and said to me: "George, I want to hear from you, but I want always to hear good news." I have never to this day forgotten or lost sight of those words. As long as she lived I kept one purpose in mind: to make my life yield good news for my mother.

So I left home in the winter dawn, wearing the tight-fitting coat and britches mother had made for me of homespun jeans. I wore heavy brogan shoes, their soles covered solid with big-headed tacks. I lugged a heavy cardboard satchel that held all my belongings. I had never in my life rode a train before. The cars seemed just to glide along as if I were riding on air. All that day I watched the country roll past the car window, brown fields, grazing cattle and farm cabins, but mostly pine woods. It was 2 o'clock in the morning when the train got to Cullman. I found a hotel room for twenty-five cents. The next morning about sun up a livery stableman came around. "Where do you want to go, sonny?" he asked me. "How much would you charge to take me to Fayette Heard's house eighteen miles from here on the road to Baleyton?"

"That would cost you a dollar and a half."

"I" believe I could walk the 18-miles in a day," I told him. "The dollar and a half would be good wages for me."

So I had my breakfast and struck out on the big road to Baleyton, lugging my bag. After 60 odd years, that 18 mile walk on a January day seems about as hard a day's work as I have ever done. I followed the narrow winding white sandy and mostly level wagon road across hollows and mostly through wild country where scraggy blackjack and post oak with tall pines grew. All day long I met up with just one fellow traveler by the name of Andy Cash. I sat down by the road to eat the cheese and crackers I had bought for lunch. I had never tasted cheese and crackers before. To a tired and hungry boy they were like food for a king. As I sat there a man rode up on a black mule, headed toward Cullman.

"Where are you going, young feller?" he asked me.

"I'm on my way to Fayette Heard's house," I told him. "He's my brother." "Why, I know Fayette Heard. He's my neighbor. You have a good long piece to walk yet, sonny."

I trudged on with my satchel getting heavier all the time. It had been dark a long time before I reached Brother Fayette's house. A few days later that same mule rider, came over and hired me for \$10 a month and board. My new job was to help around the grist mill, cotton gin and saw mill. Between times I would do general farm work. My day began at 4 o'clock in the morning. I had to chop wood and draw water to keep the boiler going till dark. At 8 o'clock I would shut down the mill and trudge home to supper dead tired. But that tough schedule lasted only till the ginning was done. Mostly on the farm my work was lighter, but there were days all through the year when we would run the mill to saw lumber or grind corn.

CHAPTER 3.

IN WHICH I BREAK INTO SOCIETY

As I soon learned, friendly people lived in the neighborhood where I worked. Socially, they accepted the hired man as an equal. Where everybody worked with their hands, a man was judged for what he was, not by what he did for a living. There was a church close by and I got an invitation to Sunday School. Before I went, my employer took me to town and I bought my first full suit of store clothes. So I felt dressed up and important. At first, I was terribly bashful; but as I got acquainted with the young people I mustered enough courage to sing with them.

In all my 20-years, I had never once gone with a girl. But at church a certain fine-looking miss, about 18-years old, with light brown hair and sparkling brown eyes, plump, ruddy complexioned and decked out in gingham, had caught my eye. I wondered why she always came to Sunday School so far behind her family. One Sunday afternoon, all dressed up in my new suit, I was idly carving the bark on a giant pine that stood by the big road. All of a sudden that same young miss, Ida Ogletree was her name, came along. I had not spoken a single word to her. She stopped and asked me what I was carving.

"Oh, it's nothing," I answered diffidently.

My new suit made me strangely bold. The first thing I knew I was asking Ida why she always came late to Sunday School. Then I discovered that Ida knew all about my interest in her.

"On Sunday it is my turn to clean up, polish and straighten up everything about the place," she explained. "I thought maybe you would walk home with me sometime after Sunday School and I did not want you to find everything all messed up."

Much to my surprise, I bantered:

"Well, let's go right now and see what kind of a housekeeper you are."

After that pleasant visit I went with Ida regularly to whatever young people's gatherings there were. I liked the community and was enjoying life as I never had before. When I revisited Alabama in May, 1949, I learned from Dr. Ogletree, a fellow dentist, that his sister, Ida, a great grandmother now, was living in Tuscaloosa, Alabama.

My work on the farm was not too hard but before long my old discontent was urging me to move on to greener pastures. I had heard my mother and uncle talk a lot about Judge T. A. Street, who ran a large farm on the banks of the Tennessee River in Marshall county. Judge Street was mother's second cousin. Before the War between the States, he had owned slaves and run a large cotton plantation. So I made up my mind to visit Judge Street at Beard's Bluff.

In August crops were laid by and farm work was light. One day I caught a ride with a neighbor who was driving his wagon to Guntersville. From there it was only three miles to Judge Street's house. It was past dinner time when I arrived, hot, tired and hungry, at the Street house on Beard's Bluff. The family had never heard of me but they knew my mother's brother, their kin. They received me kindly and scared up some lunch for me. I stayed all night and the next morning rode to town with Judge Street in his buckboard. During that ride he and I made a trade. I was to return at New Year's, January 1, 1888, and run his farm. In Guntersville I caught a ride back to Andy Cash's house with another neighbor. So that night I was back on the old job, jubilant over the prospect of a new start in life for the year to come.

CHAPTER 4.

I ACQUIRE A HUNGER FOR KNOWLEDGE

On the last day of December, 1887, I arrived at the Street home to begin my job with the new year. Since leaving Judge Street in August I had not once thought of writing to him. Until then I had received little schooling and no social training. But I found my job waiting for me.

That was the first responsible position I had ever held. I was to take care of the livestock, keep fires going in the big house, cultivate a one acre garden and grow a corn crop on the bottom land along the river. In later years I was to realize that was the luckiest break of my life. The Streets were counted among Alabama's finest families and they took me in as one of them.

The Street home stood on Beard's Bluff overlooking Tennessee River. The farm, where before the war, slaves had cultivated cotton, lay spread out in the valley below. Strung along the bluff were numerous slave cabins. Some of Judge Street's former slaves lived there. Aunt Dinah, the cook, had been a slave in her young days. When I went there share croppers had taken over most of the cabins, but I lived with the family. My two year stay with the Streets was the best education I ever received. At the outset I became aware of my lack of booklearning. Everyone in the household was a booklover and read after supper. There was nothing for me to do till bedtime but read also. Kindly Judge Street helped me to get started. - .

"How far did you go in school, George?" he asked me. "Through the blueback speller and McGuffey's 5th Reader." "Well, then, maybe you would like this book."

Judge Street reached into the well-filled bookcase and pulled out "The Life of David Crockett." Soon I was lost in the book. Its pages recreated my own boyhood. Young Crockett had a bringing-up strikingly like my own. Then I realized for the first time how much alive a book could be.

After that, I devoured "Daniel Boone," a history of the late war, lives of Robert E. Lee and Stonewall Jackson, two or three of Amelia Barr's novels and ever so many more whose authors and titles have slipped my mind.

At the outset my job consisted mainly of getting wood chopped to keep several big fireplaces supplied, and to see that the numerous horses, mules, work oxen, beef steers, yearlings, milk cows, sheep and hogs on the place were fed regularly. Like all the farm people in that country, the Streets ran their hogs in the Tennessee river hollows and swamp to fatten them on the mast, as the abundant crop of acorns, hickory nuts, beechnuts were called. Just to keep the hogs tame, I would ride into the woods once a week to feed them a sack of corn. At first I'd call "Co-pee, pig-ope," and that would bring all the hogs within hearing. To avoid having to feed the neighbors' swine, I used a trick which my father had taught me. He would yodle to his hounds to call them from a fox chase and put them on a hotter trail without calling the other hounds. As I dished out corn to the Street hogs, that I could tell by the crops in their ears, I made up a call of my own and yodeled it—a long, low chant that would rise to high C, then drop to a deep bass, with weird, wavering notes strung between. Pretty soon, when I'd go back to that spot and start my call, I'd hear a chorus of grunts and a roar over by the river and a bunch of hogs would come running. Over the hill to the right a big boar would let out a snort and bring in his troop. None but the Street hogs would answer my call—I had taught them the yodle when no other hogs were near.

At corn-planting time in April and May, T. A. Street, Jr., (Atkins), then 16-years old, was home from school. Though five years younger than me, Atkins proved to be one of the best teachers I ever had. Until he was quite a big boy, Atkins himself had no teacher but his mother; but, in that day, Julia Ann Street, one of State's Pioneer College Women, was counted among Alabama's most efficient teachers. When one of her sons, E. C., the youngest now in Waco, applied for admission to the University of Alabama, the examiner had said to him:

"I do not know anything about Scotsboro Academy where you attended, but anybody who has passed Julia Ann Street's tutoring can enter this university." Two older brothers had graduated at the Politecnic.

Years later one of his old school mates told me about Atkins' first day at the boarding school in town. Atkins did not know how to act and was laughed at for his awkwardness until he walked up to the blackboard and demonstrated a theorem in geometry. This occasion was his first school. All his life he had been a great reader and he never forgot anything.

Now young Atkins was to take me in hand and teach me, as his mother had taught him. That spring he and I took two big mules, he plowed one and I the other. We plowed long rows of bottom land for planting corn. As we walked side by side behind our plows, Atkins would tell me a story, like that of Joseph. I never had heard of Joseph

"Israel loved Joseph more than all his children because he was the son of his old age, and he made him a coat of many colors" and so on till Joseph had interpreted Pharaoh's dream.

"Now you tell me the story," Atkins would say to me.

I'd begin with, "Israel loved Joseph . . ." and repeat the story of Joseph complete.

Then Atkins, well pleased, would tell me:

"You didn't skip a single point, George. You have a wonderful mind. All it needs is cultivating."

After that from his well-stored memory, Atkins would pour out tales endlessly and have me repeat them. When I told my young tutor one day that I had never looked inside a grammar, he began drilling me in the naming and using parts of speech: "The red bird sings in the sweetgum tree."

"Bird is a noun, sings a verb, the and and red are adjectives . . . now you tell me."

In that manner, as we walked behind our plows day after day lessons would go on. My young teacher worked with me patiently, and with utmost tact, corrected my errors. He took keen delight in seeing me pick up grammar just from this 16-year old.

Along in my second year with the Streets, after the crops had been laid by in August, I suddenly decided to visit home. I had been gone almost three years. During my visit to an uncle I received an invitation to try my fortunes in Florida. My boyhood friend, Bill Sykes, had settled there. When I told Judge Street what I had in mind, he made me an attractive proposition:

"George, I like the way you have taken hold of things here. That proves you will make a go of whatever you undertake. You stay on with us, and we'll convert that land three miles up the valley at Warrenton into a livestock farm. If you will marry and settle down, I'll build you a nice home and give you half the proceeds of the farm, consisting of about 800 acres."

Judge Street knew that I had not become widely acquainted with the young people in that community so he mentioned a fine young girl whom we both knew.

"Cousin Tom," I answered, that is the finest offer I ever had but I just cannot make up my mind to accept it." (A 'wee small voice' within me had told me to say "No" and, as it later seemed, for the best."

So, when my second year was up, I bade the Street family good-bye and pledged them I would never forget all the things that had been done for me. In September of that year Atkins entered the University. He and I exchanged letters for several years. When the United States took over the Philippine Islands at the turn of the century, T. A. Street, Jr., of Alabama helped draft a code of laws for the new possession. He became Judge Advocate at Manila and held that post until shortly before World War II broke out.

When I revisited Alabama in the spring of 1947, I called to see Atkins' sister, Mrs. Julia Snead, in Birmingham. She recalled how, 60-years before, Atkins and I had written to each other, in French, whereas, only a few months before he had drilled me in nouns and verbs.

CHAPTER 5

IN WHICH I DECIDE TO STUDY DENTISTRY

A revered teacher of mine in Alabama, Chess Alien, first put the idea of studying dentistry into my head. He told me that good dentists were scarce and badly needed. By entering that field, he told me, I could do a world of good and at the same time earn a competence for myself. For some years I kept turning that advice over in my mind. It was while teaching school in Falls County, Texas that I finally decided that was my calling. When I went to Dr. Norton in Mexia to get some teeth filled, I suddenly confided my ambition to him.

"Do you think I could make a dentist, doctor?" I asked him, "You know I would not want to turn out a square peg in a round hole."

"Young feller, what did you like to do best when you were a small boy?"

"To make wagons out of pine bark and hickory saplings."

"Well, then, you need not hunt any further for a trade. You have the knack it takes to be a dentist."

Dr. Norton did not say to me, "Go and tell no one," but that was the course I followed. I kept my counsel but began saving dimes to pay for my education. During my last year on Tom Johnson's farm, I spent no money for anything. When my employer would toss his worn out shirt or pants into the rag box, I'd fish out the discarded garment, patch it up and wear it.

All the while, I worked overtime making a good farm hand. At cotton picking time I'd be up before daylight to get the pickers into the field early. After supper I'd help to load a bale of cotton on the wagon to start for the gin early next morning. In the long run, that policy paid me handsomely. Whenever I wanted to go riding with Johnnie Belle, or to go any place, Tom would let me use his horse and buggy. Then when I became a struggling dental student, he was my friend in need.

When the time came to reveal my secret, I suddenly said to my employer:

"Tom, I'll be leaving you one of these days, I am figuring on entering Vanderbilt University's dental school at Nashville in September." Though he hated to lose a good farmhand, Tom Johnson took the news with good grace.

"That will be the finest thing you ever did, George. You can count on me to help you out in any way I can."

There was another person in my life who likewise took the news in stride. My girl, Johnnie Belle Davidson. I had kept my secret from her too, until I had definitely made up my mind. So a delicate situation for the two of us had to be faced. I had barely enough money saved to get by for a year at school, and that only by making every penny count. Definitely, I could not support a wife.

Now Johnnie Belle was an active ranch girl who could help or do anything that came to hand. She was intelligent and broad-minded. She had written stories for newspapers in that part of Texas. Nowadays a resourceful young wife will find herself a job and help her husband stay in college, but in the 1890s that was not so well thought of. I knew instinctively that Johnnie Belle would have been game to do it, but I simply could not brook the thought. I was too independent minded for that.

So Johnnie Belle and I talked things over in perfect frankness and agreed together—though it hurt us both more than we were willing to confess even to each other—that we must drop our romance. When the day came for me to tell her goodbye, Johnnie Belle said to me:

"I will always remember you for this George. In our relations with each other you have been a perfect gentleman."

* * *

My family in Alabama never knew how ragged I went while I was saving my money to go to dental college. One day my friend, Tom Johnson, spoke about my ragged clothes:

"What would the people in the community where you taught say, and what would your girl, Johnnie Belle say if they knew how ragged you were going."

A day or so later my old friend Will Harlan came over. He looked me over and asked:

"Why don't you get yourself something fit to wear?"

"Clothes cost money," I told him. "For what a new outfit would cost, I could buy a bunch of forceps to pull teeth with. You see, Will, I'm leaving here next week to enter dental school at Nashville."

"Well, you had better not get hungry and come to my house. A fellow as ragged as you are cannot eat at my table."

Then I bantered him. "I'll bet you would like to have my picture in these togs. Join me and Tom in Marlin tomorrow and you can have one." "I'll be there sure." So, Tom, Will and I are in the picture. On a visit to Marlin 51 years later I met up with Will Harlan. He told me he still had that picture.



Left to right—Dr. George W. Heard, Tom Johnson, Will Harlan

CHAPTER 6.

I GO TO DENTAL SCHOOL ON A SHOESTRING

When I was ready to leave his place to catch the train for Nashville, Tom Johnson figured up how we stood. He owed me \$300 in wages.

"As you need this money," he told me, "I will send it to you." I had money in my pocket to buy my railroad ticket. That \$300 was all I had to pay for dental education, three years' tuition, living expenses and dental tools. The thought that I might not make it never entered my head. Years later I was to read in my Bible how Abraham entered Canaan and took possession of the land as far as he could see.

Unawares I was imitating the old patriarch on that September morning in 1895, when I headed for Nashville nothing could stop me short of the goal I had set for myself, a dental education. Achieving it would call for pinching every penny and seizing every opportunity to earn another one. But, until that hour, my life had been one continuous drill in doing without things I wanted. Saving came natural to me.

On arriving in Nashville, I was lucky enough to find three fellow students in the same fix as myself. Bradshaw from Kentucky, Catlett from Mississippi and Howard from Texas. The four of us rented a room with two beds in it for \$16 a month. We found a place to eat for 10 cents a meal. Eating twice a day, I cut my food bill to \$6 a month.

During my whole three years in Nashville I went to the theatre only twice. Each time a friend bought the tickets. When I wanted to go some place, I walked. On a few rare occasions, I rode the streetcar. Being broke in Nashville, a college town was the common lot. A common saying at Peabody College was that no student having a half dollar in his pockets would think of spending it until the eagle on it was worn slick.

So by living frugally I got through my first year in college without going into debt. By summer vacation time I had learned how to do some kinds of dental work and thought myself pretty good at it. On the sly, as I had no license to practice dentistry, I found patients who were game to let me fix their teeth. By that means I earned and put away a little stake for my second year at Nashville. Too, after I had used up the \$300 that Tom Johnson had for me, he would borrow some money, on his credit and mine, to help me over a tight spot. When you are struggling to get an education, you learn to value a friend who believes in you as strongly as Tom believed in me.

One day I visited the Hermitage, that already in the 1890s was a public shrine. While there I picked up some souvenirs which I thought Tom, who admired old Andrew Jackson, would like. Along with the gift went a letter informing my old friend that I was broke again. When I revisited Marlin in 1946, I went to see the Widow Johnson, who lived there. She dug into her cedar chest and brought out the trinkets from Andrew Jackson's farm and the letter which she had kept for 50 years.

During the middle of my last term at Vanderbilt, I suddenly decided that I could spend a month at home in Alabama cheaper than I could stay in Nashville.

"Aren't you afraid you will get busted?" Catlett asked me.

"When the faculty busts me," I told him, "the whole class will be busted with me."

Again when most students were cramming for their final exams I kept pretty busy making plates and bridges for fellow students to turn in for required credits on their finals. Thereby, at the expense of a few moral qualms, I earned badly needed expense money. After the finals were all in, the dental school manager came to see me:

"Heard, you are on the honor roll. You stand fifth in the class. But you can't graduate while you are in debt to the school for tuition."

"What can I do that will take the place of money?"

"Give me a note endorsed by two financially responsible persons." My father and an old neighbor signed the note for me, and so I was allowed to graduate. But when I began to practice, I quickly discovered there was little money in circulation. One time Vanderbilt sent me a notice that my note was overdue. For the answer, I stated the generally known facts concerning the frozen money market, and added: "The note you hold against me is worth the money. When you can wait no longer, there is a way to collect it." After that, I received no more duns from the college.

Not long after I entered dental school I earned the nickname, "What For." It stuck with me to graduating day. I was never content to take the textbook answers to a problem on trust. On final examination Dr. Stubblefield, professor of metallurgy, asked me to explain the play of colors when steel is being tempered.

"The colors are given off by molecules as, driven by the heat, they rearrange themselves in a different pattern."

On that answer, Dr. Stubblefield graded me 100 per cent. The other members of the board protested: "It is not the book answer." "It is more sensible than the book answer," Dr. Stubblefield retorted. He won his point. A zero on that one question would have knocked me off the honor roll.

On the night I received my diploma, Dr. Stubblefield gave me a parting word which I never forgot:

"I hope, Doctor, that the Lord will take as great a liking to you as I have." The professors "Doctored" no student till he received his diploma.

Among all those friends of my college days, I have nothing left today but the memory of them. So far as I can learn, I am the last one or two survivors of the Class of '98. Yet nearly all those students were younger than myself. After 50-odd years, I feel as young as I felt the day I walked out of Vanderbilt.

CHAPTER 7.

I TAKE UP THE PRACTICE OF DENTISTRY

Soon after I got my diploma I took out Alabama license and opened up an office in Albertville. The town was small and the country roundabout was newly settled, but for a dentist, the outlook was bright. In that country even baby teeth decayed rapidly. Before he was 20-years old many a youth had more fillings than natural teeth in his mouth. Nobody, even in the dental profession, knew then that anything could be done about it. For that matter, even today, profession and laity are mostly uninformed as to means of preventing tooth decay.

On the other hand, in those parts, pyorrhea—a disease which attacks the gums and tooth sockets—was almost an unknown malady. It was dental decay that did the mischief. I knew a 16-year-old girl who, on that account, wore an upper plate.

As my experience was limited, I did not then know that dental conditions were different in different regions. Indeed, the dental profession itself did not recognize that principle until about 40 years later. When some years earlier I suggested the idea to my fellow practitioners, they scoffed at it.

It did not occur to me until after I began practice to link up the food that people ate, the milk and water they drank or the soil which produced their food with the prevailing bad teeth.

In that Alabama hill country, the soil was thin and sandy. It was deficient in lime and phosphorus. Mostly the people drank water from shallow wells. Once I thought minerals in water was valuable but not so any more. The cattle feed also was deficient in lime.

My observations have convinced me that the minerals in drinking water do not nourish the living body. As those minerals being inorganic are not assimilated as food, they have nothing to do with making the food good or bad. That is my theory, but food requires water to make it assimilable, just as a railway car must have a track to run on.

Anyway, after several years practice in Albertville, the idea occurred to me that food might have something to do with building sound teeth along with sound bodies generally—but the idea was slow to register with me. As I recall, I got the idea first when a batch of hen's eggs at the place where I lived turned up with soft shells. In that country, the farmers would feed their hens with limestone grit or crushed oyster shell, to produce eggshells.

If the lime in grit or oyster shells will produce eggshells, I reasoned, sufficient lime and other body-building elements in the children's food and milk will produce sound teeth.

One day a patient of mine, Mrs. Brown, harassed over her children's bad teeth, talked a bit short to me:

"Doctor, if you dentists knew your business, you could stop teeth from decaying so fast."

With those soft eggshells in mind, I had an answer for her:

"Mrs. Brown, if you fed your hens the same food that you feed your children, you would not have a hard-shelled egg on your farm."

As long as I practiced dentistry, I kept telling my patients that to have sound teeth they must eat foods that contain tooth-building elements. I told them that milk contained calcium (lime) in the form easiest assimilated for building both bones and teeth. As calcium is prominent in teeth, we too easily forget without other essential elements calcium is no good. It requires every mineral and vitamin to create strong teeth and bodies. Our popular foods do not have these.

Often as not, my patient would resent that good advice:

"I say, doctor, I'm paying you to fix my teeth, not to tell me what to eat."

Just the same I kept on, day after day, trying to drill this truth into my patients' heads: "You are what you eat."

Long before I ever heard of Professor Einstein, I had worked my own special law of relativity:

All life is interdependent: There is a harmony running through all the forms of life, from amoeba to man. If that harmony is upset, trouble results.

For its well-being and proper functioning, the human body must constantly replace all the elements of which it is made. The little noticed trace elements are as important as the others. They are the catalysts which set off the body's spark plugs. That's why it takes a balanced diet of food grown in completely fertile soil to keep the bodily machine running smoothly.

The way to keep healthy (I would tell my patients) is to live upon foodstuff out of soil which contains all the bodily elements in soluble form.

But that food should be eaten as it comes from the earth. When the flour mill takes the hulls, bran and shorts out of wheat, to produce white flour, it has robbed the grain of essential vitamins and minerals. Naturally incurable diseases develop. Likewise, as a chemical analysis shows, three-fourth of the white potato's mineral content is in the peeling. The way to get the potato's full food value is to bake it with the jacket on and eat it peeling and all.

That identical principle holds with everything that grows in the garden. For example, the outer lettuce leaves that the housewife throws away when she makes salad are the richest in vitamins and minerals.

Those elements are the catalysts which taken into the body help keep its processes going. When any of those elements run short, bodily functions are impaired and disease appears. For years and years, I kept telling my patients those things. The typical patient would listen with one ear, then go home and eat white bread, mashed potatoes and gravy and lettuce hearts for supper.

CHAPTER 8.

As long as I practiced dentistry in Albertville, it never occurred to me that dental decay or crooked teeth or pyorrhea could be prevented.

In that Alabama country everybody's teeth decayed. One of my patients in 1898 was 2 year old Willie McNaron. As she played in my offices in her father's hotel, Willie had watched my patients. So she thought she had to spit a lot when she got into the dental chair. So I had to wait for her afternoon nap hour and fill her teeth as she slept.

For another small patient, Jimmie C., 16 years old, I put 15 fillings in one day all in posterior teeth. Those two children had typical mouths for that country. Among Alabama folk, most decay occurs between the teeth; but among Hereford, Texas folk this is rare.

As I later realized, those children had bad teeth because they had been fed too much white bread, cake, pies, polished rice, syrup and jelly. The worn out soil adds its part. They did not get enough raw whole milk to supply the calcium and vitamins; or enough raw leafy vegetables and fruit to supply the trace minerals (including fluorine) needed to build sound teeth.

Now our instructors at Vanderbilt had taught us dental students to wait six months after pulling teeth for gum shrinkage before putting in a new set of teeth. But later I observed that when a patient had lost his teeth purely from decay—that is, when he had no pyorrhea, and that malady was rare in Alabama in those days—I could put in a plate immediately, with little or no shrinkage. So the plates rarely had to be refitted.

I recall that soon after I opened my office in Albertville, young Tom Boyd came in to get his bad teeth pulled out and a new set put in. When the last tooth was out, my patient asked:

"Doctor, when do I get my new teeth?"

"Oh, in about six months," I told him.

At that, young Boyd stretched himself about six inches taller and yelled at the top of his voice:

"Good God, doctor, I'm going to be married tomorrow. I've got to have my teeth for the wedding."

It was not according to the book; but, sympathizing, I discarded what Vanderbilt had taught me.

"All right, young fellow," I answered. "Have a seat there and let's get busy."

I worked all that day and late that night. Before the wedding hour, I had my patient's teeth ready for him. When I last saw Mr. Boyd, 10 years after that, he told me his plates had not given him a bit of trouble. They still fit perfectly.

It was only a few days after that I pulled Miss Agnes Strickland's teeth that were too far gone for repair. I told her, as I told all my patients, what the book said: "Better wait six months for the gums to shrink and heal before we put in a new set of teeth." But after 10 days Miss Strickland was back.

"I can't wait no six months, doctor," she challenged me. "I want my new teeth and no foolin'."

So I made her a new set right off. Like Tom Boyd, Miss Strickland told me some years later that her plates had never given her the least trouble.

The explanation: Both those patients had perfectly healthy mouths, no trace of pyorrhea and hence no bone shrinkage after the denture was placed.

During the 17 years that I had my office in Albertville I cannot recall having a single patient coming back to have his dental plates refitted. By contrast, in the Hereford, Texas country, numerous patients had to have their plates made over. Pyorrhea, rare in Alabama but prevalent on the Texas high plains had caused most of my Hereford patients to lose their teeth. Long after the teeth were out the underlying bone would keep shrinking even though wearing the new denture.

After questioning many such patients, year after year, I was led to connect pyorrhea with a heavy diet of meat and gravy. Too much meat and animal fat consumed for a long time apparently causes the bony structure to waste away. I simply observed the fact: I did not then, and do not now, undertake to explain it, other than it is due to food.

When I revisited Birmingham in May, 1947, Walker Fowler showed me some gold fillings which I had put into his mouth 45 years before. Though well along in years, Mr. Fowler still had firm healthy gums. All his life, he told me, he ate meat and drank milk sparingly. I noted his numerous fillings and told him—correctly, he said—that he habitually ate too heavily of white bread, potatoes, sugar and syrup.

One day a stranger walked into my house at Hereford and challenged me:

"Doctor, look at the gold fillings in my teeth. Do you know anything about those fillings?"

I looked, shook my head and asked my visitor: "Can you tell me any reason why I should know?"

Then he said: "You put those filling in 45 years ago. My name is Lee Barnes."

Lee is a cousin of mine, but I didn't recognize him. Like Mr. Fowler of Birmingham, Mr. Barnes, a Government field man now, had eaten lightly of meat but too heavily of starchy foods and he had not consumed enough milk. That is, not enough from well fed cows.

CHAPTER 9.

I CONFIDE MY IDEAS TO FELLOW DENTISTS

By 1910, as I recall, my persistent ideas concerning the effect of food and drink on the building of a sound body, and with it, a sound set of teeth, had begun to take definite shape.

It was at the Alabama Dental Association convention in Birmingham that year at a luncheon table with three fellow dentists, that I first ventured to unload those unorthodox ideas on the profession. I have about reached the conclusion, I told those dentists, that a patient's diet has more to do with the condition of his mouth—or for that matter, the condition of his body generally— than our medical or dental scientists have any idea of. "It is my conviction, gentlemen, that if a child, from its birth up, were fed a well-balanced diet, given plenty of calcium in milk to build bones and teeth; plenty of protein in meat or beans or whole wheat grains or similar foodstuff; given enough carbohydrates in bread, potatoes, sugar and white syrup to supply bodily energy, but none to lay up excess fat—that a child so fed would grow up with perfectly sound teeth. As you know, Doctors, our people on the farms feed their laying hens limestone grit and oyster shells to produce egg shells. Their poultry bulletins from Auburn tell them to do that. But it never occurs to those same people to see that children get lime enough to produce sound teeth."

"Good cow's milk would supply that element, provided the cows grazed on grass or were fed on grain or fodder that grew on limestone soil. As we dentists know, and as our farm experts know, a lot of our Alabama sandy land is sadly deficient in lime. We know also that cows and people habitually drink soft water from springs and shallow wells and consequently do not get enough lime in their diet. Give the children, and the grownups as well the minerals they need and you will have sound bones and sound teeth."

I'm further persuaded, gentlemen, (I went on to say) that wheat, if it were consumed whole instead of being refined into white flour, as our modern mills refine it, would be just about the perfect food. For wheat contains protein, starch, phosphorus, calcium, iron and other elements which it takes from the soil. In good soil wheat contains nearly a complete ration.

Feed this whole grain wheat to growing children and give them all the milk they can drink, with a little meat and sweetening in their diet, not too much of either, and you will have healthy children.

Now, there is some sense to refining wheat to make paste for hanging paper, but no sense at all that I can see to taking out of the wheat all those elements that nature put into it to feed people. It is impossible to be ailing when the food is correct.

My fellow dentists heard me out with respectful attention. When I had finished my say, two sat silent and incredulous. But Dr. Young of Anniston remarked: "If all our patients adhered to Dr. Heard's ideas, we would be minus patients."

CHAPTER 10.

IN WHICH I WIN A HELPMATE

Not long after I opened my office in Albertville, I met an attractive school teacher, Mattie Gordon Reed. Like myself, she was reared on a farm, a Sinclair County girl.

Mattie had begun teaching at the age of 18 years. As I, too, had taught school, she and I found things in common. She lived in Albertville only during vacation time. For the rest of the year she was either teaching somewhere or going to school herself. For four years she taught in Roswell, New Mexico.

During those absences, Mattie and I wrote to each other regularly. When she was in town, we were together on Sundays and sometimes during the week we would go buggy riding. Even though she was at home in Albertville only during the summer, Mattie was my only regular girl. She quit teaching about a year before we were married.

Our courtship lasted for seven years. We were "just good friends," with never a thought of petting. I was still terribly bashful and could not yet drum up courage to ask Mattie to be my wife.

(One time I consulted a psychologist who told me that seven was my lucky number.) There does appear to be some truth in what she told me. After having known each other for seven years, Mattie and I were married. Again the number one has been significant for me also. I was once married and have one son. Two numbers, one and seven, do run through my history. What does that mean, Oh, Nothing in particular. A notice of street addresses of many of my friends have seven or one, and sometimes both.

As the months and years passed by and I had accumulated wealth sufficient for feeding another mouth, I began to notice that the evening hours at Mattie's house were getting shorter and that midnight came quicker than before. One night I remember having over-stayed my time. The clock's hand was moving along toward the small hours. Still I showed no disposition to say good-night. Suddenly Mattie showed me a little game she had made up herself. She had me make a row of ciphers like this: "0000 000 00." Then she had me draw lines to the ciphers to make them read: "Good God Go." I took the hint.

Again when I stayed too late—and my timidity still tied my tongue when the question that needed asking popped into my head—Mattie suddenly said to me:

"Do you know, Doctor, I sometimes think that you and I ought never to be separated. You won't go home."

"You mean, Mattie, you think we ought to get married . . ."

We had then gone together for six years and both were well along—so it was about time.

So Mattie and I were married in 1906, when she was 34 and I was 39 years old. Soon afterward we built a nice home in Albertville where we expected to live out our lives. Five years later our only child, George G., was born.

Through 41 years, Mattie was my faithful helpmate. For many of those years, I was constantly sick—sometimes barely able to trudge to the office for my day's work.

After we moved to Hereford, Mattie became my office assistant. She worked at it for 16 years. Her sister, Miss Lucy, kept house for us and became the mainstay of our household, as she is to this day.

When I started experimenting boldly with fasting, then with fruit juices, raw foods and unrefined natural foods, seeking and at last finding the way back to health through diet—Mattie went along with me.

Whenever my wife would try to get me to say how she should carry on our affairs when I was gone, I would always say: "No, Mattie, one of these days, I'll be a man again." Something inside me, told me to answer her like that.

All along, day after day, Mattie would prepare my food with care and skill; but one thing saw me through—her faith in me. Until she died in 1947, in her 75th year, I was heavily dependent upon her.

During the entire 41 years of our married life—and the more than 30 years in which her sister, Miss Lucy Reed, made her home with us—there was never one cross word spoken in my home that I knew. I could trust her to the limit. She had her spending money in one bank and I in the other. She usually banked the income from the office in my bank to my credit. Occasionally she would say, "Do you think it would be Okay to make this deposit in my bank ? Always my answer would be that it was a good idea. One day I said "I believe I'll buy Albert Carter's place for George." She agreed and asked for my consent to let her pay for it. I said Okay if you think you have that much from the deposits. She never checked on it, so she never received reports. The report showed plenty and some to spare. I have had business men and bankers tell me it is unwise for a man to allow his wife to check on the bank account. I could trust my wife anywhere.



CHAPTER 11.

HOW FAULTY DIET MADE ME SICK

About the time I got well broke into my routine at the dental office my health began to fail me. Almost continuously I had bad colds, tonsilitis, chills, fever and bilious attacks. When medicines of various kinds failed to help me, except for a little temporary relief, I began to study foods and to experiment with eating for health. But it took me a long time to get on the right track. I had no informed nutritionist to advise me.

After Mattie and I were married and I had settled down to a sensible routine for eating, sleeping and working, I had thought I surely would get straightened out—but, instead, my health kept on giving me grief. I was pale, weak and almost constantly tired. About that time a young doctor, just out of medical school, told me I had auto-intoxication. But his medicines did me no good either. Before that it was known as bilious attacks.

One day I met an old friend on the street and he gave me some good advice:

"George, you go up to Lacey's Springs and stay a month or so—or all summer if you need to. You'll come home feeling like a new man."

I went up there and found that the hotel, a three room shack, was two miles from the springs. The postoffice was two miles in the opposite direction and there was no public conveyance. So every day I would walk to the spring and to the postoffice. The water, heavy with magnesium and other healthgiving minerals and rather warm, tasted terrible. I forced myself to drink two quarts a day. Soon I was enjoying the outdoor life so much that I began to climb over the mountain. There was a railroad on the other side and a switch where I could flag a train back to town. After I had kept up drinking that nasty-tasting water a few weeks, along with the daily walk and climb over the mountain, I began to feel better. I wasn't tired and fagged out any longer. I was getting back my natural pep and ruddy complexion. I had gained several pounds. My friend was right: I went home feeling young again and thought I was cured completely.

Too soon, I had a backset. On the job again I slipped right into my old routine, ate anything and everything I wanted and took no outdoor exercise. After a few months of that, with patients keeping me at my dental chair 14 hours a day, I was right back in the old rut. I felt all tired out, could not sleep nights or eat well. Then I went back to the springs. Since my last visit, the place had developed amazingly. There was a brand new hotel close by the spring and a little town of tourist cabins around it. A hack line ran to the postoffice. There were plenty of people to talk to or play games with. So I did not go tramping or mountain climbing. The water (which I thought had cured me before) did me no good at all that I could tell.

I returned to my practice and managed to keep going, but felt better lying on my office couch than running the dentist drill. Some months later I stayed another spell at the springs, but with no better results. The one thing I learned after spending these summers at the spring was that the minerals in the water was inorganic and of no value as a food, but may be of value as an irritant. A small amount of epsom salt in hot water every morning will be worth hundreds of dollars spent at a health resort.

Somebody was always recommending a wonderful new medicine to me. I would try out each one as it came along, but none gave me any lasting relief. Then our family doctor told me about a diagnostician who was working wonders in that part of the state. So I went to Dr. Brown at Gadsden. He told me I was anemic. He put me on iron and told me to eat plenty of lean meat, liver, eggs, bread and butter and like rich foods. The upshot was that my auto-intoxication grew worse. As I later learned, over-eating had caused my trouble in the first place.

About that time Mrs. Heard was stricken with pleurisy and a persistent cough. So our family physician sent her to Dr. Brown. He prescribed a rest cure with plenty of milk, meat, butter and eggs. But the enriched diet did her no good either. When he saw how things were going, our family doctor recommended a change of climate for both of us.

"Move out to the high and dry Texas plains country," he advised.

Reluctantly, we sold the house which we had built for keeps and migrated to Texas. First, we took the train for San Antonio, then as now, that city was widely famed as a place where people would go with lung trouble and all sorts of chronic ailments and fight their way back to health.

Before long I found a likely opening for a dentist in nearby Jourdanton. We spent almost a year there and found it a good place to stop a cough but not much good for a dentist.

Then, by mere chance I heard about a dentist in Hereford, The Deaf Smith County seat, who wanted to sell out. So I traded with Dr. G..... Before we got settled in our new home, Mattie and I had occasion to realize for the first time how big a State Texas really was. But as things turned out that proved the best move of our lives.

CHAPTER 12

I GO LOOKING FOR HEALTH IN TEXAS

On January 1, 1916, I settled down with my little family in Texas. Both my wife and myself looked to the dry climate of the high plains to work its magic on us. We had not yet learned that what you eat, your living habits, the way you do things and, more important, your thinking, have more to do with your health than either medicine or climate.

It was some years after we moved to Hereford that the truth dawned on me. The sick man makes his own bed and lies on it. The doctors call his ailment arthritis, anemia, tuberculosis or heart disease. Whatever his sickness may be, it is his baby. He has nursed it along, a viper in his bosom, and let it feed upon him.

In January, 1916, I was still addicted to pills, oils, salts, iron tonic or some other concoction. I thought I had to take the stuff to keep alive. Off and on I was always ailing somewhere. I had a sore throat, a bad cold, a light fever, stomachache or rheumatism. After I moved to the high plains, my rheumatism seemed milder. The change of climate had done me good. Still, I had the anemia and with it frequent colds and catarrh. Then my doctor suddenly discovered that my blood pressure was too low. Each morning I would get up feeling a little weaker than before. At last I got so weak it was all I could do to walk from the house to my office a few blocks away. As I would pass down the street, the town jester would call out to me:

"Say, Doc, which cemetery did you escape from this morning?"

That greeting did not pep me up any. But all the while I had inside of me a secret determination to get well. I cultivated that and it pulled me through.

It was in June of 1925, 9½ years after I came to Hereford that I had my crisis. My wife, Mattie, had drawn out of me, tactfully, a little at a time what disposition I wanted to make of my affairs. She had put me to bed and kept my circulation going with hot water bags. I had an electric pad at my feet. That was the time of life an old friend recalled to me not long since.

"I saw you when, if you had gone one step farther," Perry McMinn said, "you would not have come back."

Then everybody who knew me thought I had come to the end of my row. Like Mr. Ready-to-Halt in "Pilgrim's Progress," I had received my summons and was all set to cross over on the other side.

In my own mind, all the while, I knew better. I fully realized my condition and I made this plain to Mattie, but I told her I would be a man again.

PART II.

IN WHICH I SEEK FOR REASONS WHY

CHAPTER 13.

I START ON THE ROAD TO RECOVERY

My quest for health led me to a sanitorium in Denver, where I spent five weeks, and onto another in Chicago, where I stayed another five weeks. I learned that both institutions were right up to the minute on foods but both had a lot to learn about the human organism.

By this time my condition had become desperate. Everyone who knew me thought I would die any day. One morning my next door neighbor, Rex T. dropped by. He was going to Canyon to consult a naturopath, Dr. H. A. Brown, who had built up a reputation by his remarkable cures.

"Come along with me and let this new doctor look you over," my neighbor invited. "He can do no worse by you than the rest have done." I took him up on that.

When Dr. Brown had finished his check-up of Mr. T. and had prescribed for him, I asked the doctor to put me through the mill in the same fashion. When he had finished his examination Dr. Brown gave me a grim, frank report:

"You are just about dead, old man. You have the dirtiest colon I have ever found. I can clean it out, if you are not too weak to stand the shock."

By the way in which he went at his examination I was persuaded that Dr. Brown had gone right to the root of my trouble that had eluded the diagnosticians whom I previously had consulted. Intuitively, I felt that here was the chance I had sought for so long to get back my lost health. Anyway, I had nothing to lose. I was at the end of my row. But in my own mind, I knew I could make it. So when Dr. Brown looked inquiringly at me I had my answer: "Shoot, I am rarin' to go."

Right off the bat Dr. Brown prescribed a long fast. He told me to drink a glass of hot water every hour and to take nothing else into my stomach. Once every 24 hours I was to wash out my colon with a hot enema. The remedy was drastic, but as I realized it was being applied to a desperate condition. For that clogged up, inert colon of mine was constantly saturating my bloodstream with poisonous waste, I was suffering from low blood pressure and anemia "to the nth degree." Knowing that my life depended upon it, I took my medicine. It was tough at the start. Like most people I thought if I missed a meal, I'd starve. All my life until then, I had habitually eaten too much. The excess sugar and starch—in white bread, potatoes and syrup, instead of being food, reacted as filth because it could not be assimilated—had been stored up and this had meant extra pumping for my overworked heart. Now, I was about ready to drop.

After two or three days of it, my craving for food vanished. I no longer felt hungry. Every morning I walked down to my office, opened up on schedule and did my day's work. As a rule, that meant spending long hours on my feet. On the seventh day of *my* fast, I put in a five-tooth bridge for John L. Wilson.

On the twelfth day of my fast, Dr. Brown looked me over and told me I was nearly, but not quite ready to break it. Stick it out for a couple of days more, he suggested. At the end of fourteen days, Dr. Brown put me through his mill and told that, except for one bad spot I had a clean colon. And he added: "You cannot go on now. You must have nourishment. Maybe Nature will complete the clean-up." As it turned out, happily for me, Nature did just that.

Without Dr. Brown's friendly but firm warning, I would have realized well enough that I had now come to the critical turn in my fight to live. I had to break my fast by degrees. I must follow the schedule he gave me to the minute. One false step would probably kill me. Right then, a light lunch, even a bowl of soup would have been speedily fatal.

Dr. Brown started me off on a small glass of orange juice every two hours. For the next day I could have a glass of milk every seven hours. On the second day, one glass every two hours and on the third day, one every hour. For the next two weeks, or exactly as long as I had fasted, I was on a milk diet exclusively. Then my system rebelled at the treatment. I no longer could digest my milk ration. It poisoned me.

So Dr. Brown told me to fast for one day. Then put me on a diet of milk alternated 50-50 with fruit and vegetable juices. I kept that up for four months and then began on potlicker and boiled vegetables, such as mustard greens, turnips, cabbage and carrots. That was the first solid food I had eaten for almost five months.

I felt like a new man. For the first time since I was a boy I knew the feel of bounding health. When on my fast my weight had dropped to 120 pounds, four months later I weighed 178 pounds. That was eight pounds above par. I had failed to weigh regularly. My potlicker diet soon dropped me to 172 pounds. I kept that weight for several years. Then gradually I dropped to my present weight, between 145 and 150 pounds.

Since Dr. Brown treated me, 20-odd years ago, his profession, naturopathy, has devised new and better methods of cleaning and invigorating the colon than by a prolonged fast. He has abandoned that method, he informs me, as too dangerous. Coming out of the fast imposes to heavy a strain on the patient's will power. I had will power like an iron horse, without it, I could not have made the grade.

However, as I have proved to my own satisfaction, an occasional short fast—one, two or three days, as conditions may warrant— can be immensely useful.

As I can realize now, looking back over my experience, it was food eaten as appetite and taste dictated, nothing else, that reduced my health to its lowest ebb. When I began eating according to formula my health rose steadily to the high level where I have since maintained it. Whatever the disease it is self created. Disease cannot attack a healthy body.

At this writing I am enjoying what seems to me the best health of all my 83 years. On that point, following my last check-up, my family physician, Dr. L. B. Barnett of Hereford, gave me welcome confirmation. He told me:

"The best 15 or 20 years of your life lie ahead of you."

Thus heartened, I can picture myself a hale and hearty, energetic and peppy centenarian. You ask, how do I mean to do it? Well, as nearly as I can phrase it, my formula is to subsist on natural foods, mostly raw, like our mineral rich Deaf Smith County wheat fresh ground at the mill, raw vegetables grown in the same mineralized soil, and occasionally raw beef—that tastes good when put through the liquifier, mixed with raw fruits and vegetables.

For one thing, I watch my weight closely. When I pick up a pound or two, I'll cut down and cut down my intake, until I have reduced my weight back to normal. At my age—and as I believe for any adult person, stored-up fat can be deadly. My aim, then, is to consume just enough food properly balanced, proteins, oils, fats, sugar and starches, to supply energy for my bodily machine and to keep that machine in repair.

If I do that, always building up the wear and tear of each day's living, and the while supplying the catalysts needed to spark the vital processes, I see no reason at all why I cannot round out my 100 years and more—through it all keeping the feel of youth.

One of my findings teaches me definitely, that our body is made of the food which is taken into our body—perfect or imperfect, it is our creation—barring the time when we have no say. To say the least we are made of the food consumed—whether well or sick, we create it.

Man was placed here to rule and to be the "big boss" and to choose his way of life and living and to have what ever he may desire, if and when he obeys the natural laws given him. These principles have been demonstrated and proven in my life.

There have been two, so-called, outstanding diseases developed in my body. Viz. Arthritis and shaking palsy. My constant search for natural foods with plenty of minerals and vitamins relieved me of these annoyances. These are the immunizers. Disease attacks only when natural laws have been disobeyed. The minerals and vitamins we must have. These are not plentiful in our popular foods.

CHAPTER 14.

AFTER I GOT ONTO THE RIGHT TRACK

All the 25 years I have lived since I got onto the right track as to diet and living habits generally, have been years of mental growth for me—and consequently the most enjoyable years I have known. I have gained back the bouyancy and the vision— day-dreaming reader, if you insist on calling it that—of my lost youth.

My secret? It's yours for the asking, reader. Eat body-building foods which are also brain-building. I mean, for example, wheat which has a high phosphorus content—the sort that grows in our Deaf Smith County soil—but consumed whole, bran, shorts and all, not as white flour that comes from the mill. The potatoes, beans, carrots, lettuce, mustard greens and all the food crops which grow in our soil are rich in those same elements.

Now, as modern chemical analysis shows, the human body is more complex than the old school scientists ever suspected. Besides nitrogen (protein), calcium, phosphorus, potassium and water (oxygen and hydrogen), your body contains iron, cobalt, copper, zinc, chlorine, sodium, magnesium, manganese sulphur, boron, fluorine, iodine and carbon—but in various salts and in organic form. Besides to keep it functioning properly, the body needs the various vitamins (doubtless including some that biochemists have not yet discovered) and the vitamin factors, such as thiamin, riboflavin, niacin, folic and pantothenic acid. In fact our body must have food containing every element found in the earth.

Modern biochemistry bears out what the Psalmist declared 3,000 years ago: "Man is fearfully and wonderfully made—curiously wrought in the lowest parts of the earth."

All those elements are essential to keep the body functioning. When some run short because a person's food does not contain them, trouble results. Whatever the disease, we create it.

I have arrived at the conclusion that there is a type of food for each organ or function of the body. There is wheat for the brain and nervous system because it supplies phosphorus. There is milk, the best source of calcium (when it is taken raw) for the bones and teeth. There is iodine for the thyroid gland, and so on. Our body must be supplied with every mineral and vitamin if health is to continue.

If, instead of giving quinine for chills or calomel to prod a sluggish liver, the doctors would prescribe the right food in the place of drugs for whatever deficiency the patient's impaired bodily functioning (metabolism, the doctors call it) indicated, I do believe, they would get better results. I saved my life by this method. It works.

This food medicine, according to my theory, would contain the elements which the sick body needed to restore its upset balance, but in the organic form which can be assimilated.

From the viewpoint of the man who feeds upon them, the great function of plants is to take the inorganic minerals found in the soil and turn them into organic minerals that the human body can assimilate. That is true of the base minerals like calcium (lime), nitrogen (protein), potash and phosphorus. It is equally true of iron, copper, magnesium, boron, chlorine, fluorine and the other trace minerals.

To my way of thinking, the organic minerals in grain, vegetables, milk, meat and eggs—that nourish the bodily tissues and keep them functioning—are the real source of rejuvenation. But for maximum benefits, those foods should be eaten in their natural state—both raw and unrefined.

CHAPTER 15.

FOR ME LIFE BEGINS AT SIXTY

Through 20-odd years preceding my 60th birthday, I was constantly "enjoying poor health." I thought myself going down hill all the time and, as it seemed to me, I stayed alive only by means of sheer will to live. Though I told nobody, I never doubted for a moment that I one day would regain my health.

As it turned out, I was well along toward my goal when I emerged from that fast that Dr. B., Canyon naturopath, prescribed for me. For the first time in years, I was free of the waste matter which had clogged up my lower digestive tract. My sores had healed and the cause of my anemia, poor assimilation, had been removed. From then on, it was just a matter of eating the food needed to rebuild my wasted body and restore the lost balance to my bodily functioning.

My recovery was more rapid than I had reason to expect. Before long, I would call myself a full man, once again. The 20-odd years since I reached 60 have been the healthiest, most productive and altogether the most enjoyable I have known. I have done this without dieting in the ordinary sense. Day by day, I eat what I like, but you know, reader, taste for health-building foods can be cultivated. I have learned to like unrefined foods right out of nature's garden. I take my wheat ground up on my hand mill, bran shorts and all, soaked in raw whole milk. Both are produced on Deaf Smith County's completely fertile soil. Together the wheat and the milk contain about all the elements that my body needs. I could live on the two, but I like variety. So, day by day, I eat whatever my garden or the market can supply me, — carrots, mustard greens, lettuce, raw cabbage, baked potatoes with the jackets on; grapes, peaches, apples or whatever fruit happens to be in season—or, better still, whatever can be had out of my quick-freeze plant.

It does not matter so much what the foodstuff is—so long as it is eaten unrefined. Where practical, the stuff is better eaten raw. I have my doubts whether much vitamin value survives cooking. For my use, pasteurizing spoils milk completely. I suspect that the 145-degree heat kills off vitamins and disorganizes the mineral values so that it has little food value left.

Yes, reader, I eat a little meat, not too much. Sometimes I take that raw. I will grind steak up fine and mix it with chopped-up cabbage, cauliflower, lettuce, tomatoes or whatever vegetables I happen to have handy. A mixture like that, with a little olive oil or vinegar on it, disguises the meat so effectively that you hardly realize it is there. The whole concoction tastes good and it is easy on your digestion.

When I was fighting anemia all those years, a diet of raw liver mixed with raw vegetables, and supplemented with raw milk, would have prevented my illness and set me on my feet again, I suspect. Some black hull wheat from Deaf Smith County, ground up whole, soaked in milk produced on high plain pastures, undoubtedly would have speeded my recovery. This no doubt would have satisfied my hunger and prevented anemia due to over eating of demineralized food.

Along with this natural diet, I get plenty of outdoor exercise. Usually I walk where I want to go around town. This is just about my whole secret of keeping young, though the calendar says I am 82 years old. So whenever my doctor checks me over he finds all my organs sound and functioning normally. Only a few short months ago I had a two-day check-up at the local clinic. The report which came to me was typical:

"We found no evidence of age. Organs and body tissue normal."

Since I have back my physical health, my mental activity has picked up. As I lie abed by night I am so besieged with thoughts and visions that nothing will do but I must get out of bed and write down what has come to me. Mostly in that manner, I have accumulated papers enough to make several books.

Reader, I often feel like I am a boy again. For I find the visions which come to me as fascinating as new toys at Christmas. When I consulted a psychologist in whom I was interested about this second childhood of mine, he answered me, as it seemed, bluntly:

"Mentally you have no age."

On due reflection, I can believe that.

CHAPTER 16.

I DISCOVERED THE TOWN WITHOUT A TOOTHACHE

Before I had practiced dentistry in Hereford very long the truth began to dawn upon me that I was in a different sort of country from what I had known before.

When I moved there in 1916, Deaf Smith County was mostly grassland. Nearly everybody made a living by raising cattle. Until two or three years before that nobody had thought of tapping the shallow water table for irrigating truck farms. Except for scattered seedlings, that ranchers had planted, there was hardly a tree in sight. But the grass was luxuriant and kept the cattle fat.

At first I wondered why so few people came in to get their teeth fixed. My toothache patients were few and far between. Now, in Albertville, Alabama, where I practiced for 17 years, everybody suffered from tooth decay. So I was always swamped with patients. I constantly worked overtime filling cavities.

By contrast, in Hereford only a few people needed filling. The typical patient would have only two or three decayed spots in his mouthful of teeth. He had none between his teeth, where I had found most cavities in my Alabama patients' mouths. In Albertville, I was extracting teeth almost every day. In Hereford, except for wisdom teeth about the only extracting I had to do was for older persons who wanted false teeth. Pyorrhea, not decay, had ruined their natural teeth. Indeed, there was so little business for a dentist in Hereford, I decided I would have to find a new location or starve.

So, when I would go up to the district convention in Amarillo every year I would make a point of asking some fellow practitioner from the Panhandle, Oklahoma or New Mexico:

"Doctor, do you know of a good location that is open? Why down at Hereford I hardly get enough business to keep going. If it wasn't for putting in dentures for elderly pyorrhea patients, I'd have to close up shop."

"But, Dr. H—," the dentist would answer, "You are in one of the best dental towns in this part of the country."

One time, when I asked Dr. G. of Tucumcari, New Mexico, that question, he promptly offered to trade places with me. We didn't follow through, however. Dr. G. is still practicing in the same spot and, from what I hear, doing all right.

When I located here, Deaf Smith County was newly-settled. Few families had lived there for long. The country roundabout Hereford was all cow pasture. I had my office in a building that stood in a pasture when it was first built. Seemingly everybody had grassfed beefs to kill and eat. About half the families kept at least one cow each. Cowmen as a rule do not like dairy cows.

To begin with my natural-born curiosity had set me to searching out the reasons why so few people in the Hereford country came in to get their teeth fixed and why so few ever had toothache.

Soon after I began to practice in Alabama I had worked out in my own mind, but had not yet crystallized the theory in words, that the right kind of foods, in the right amounts and properly balanced, if consumed from babyhood up would produce a healthy body and, with it, sound teeth. At the time, the idea was so novel, that I merely toyed with it and did not follow it up.

When I began to get the lay of the land at Hereford, I realized that the people who lived there were getting the kind of food that built healthy bodies and sound teeth, but what was it?

For the most part, the people ate home-raised beef, white bread made from shipped in flour and Irish potatoes, also shipped in.

As I have told the reader, Dr. C. A. Pierle of Canyon first gave me the idea that milk from cows that had grazed on the native grass was mainly what produced healthy mouths. With this clue in mind I would say to a patient who had come in with a mouthful of sound teeth he wanted cleaned up:

"I see that you like milk and drink lots of it. You like your buttermilk and clabber, too."

"You have me sized up about right, doctor," the astonished patient would answer. "How did you ever guess all that?"

Naturally, nobody in or around Hereford had thought once giving their food or milk credit for producing their sound teeth. They did not suspect that what they had to eat or drink was any different from what people in other parts of the country lived on. Very few people are aware of the fact that what one eats determines their health.

Even today, very few Deaf Smith County residents seem to appreciate the fabulous riches of their soil. The greater number do not know how to value the food crops which grow in that soil loaded with health-giving minerals and vitamins.

My inquiries among people who live in distant States have about convinced me that no other agricultural area can match in total nutritive value the wheat, green vegetables, other food crops, beef and dairy products that come from Deaf Smith County's mineralized soil.

Most maladies which afflict mankind, I say, can be eliminated by living on the correct foods. Whatever ills the people suffer from, they themselves have created—mostly by their faulty eating habits. I can cite you Scripture to bear me out:

"Brethren, I have fed you with milk, and not with meat," Paul writes in his first epistle to the Corinthians. "For hitherto ye were not able to bear it."

Again, the apostle writes to the Hebrews:

"Strong meat belongeth to them that are of full age."

To be sure, the language of those passages is figurative. Milk matured the child. Meat was fit food for the understanding adult.

Even so, in our Plains country, those persons who drink plenty of milk from childhood up, almost unfailingly are found to possess keen minds along with their sound teeth.

I GET SOME CLUES AND FOLLOW THEM UP

As I had a pretty strong suspicion that the food which my patients had lived on would give me the key to their mouth condition, I would question every person who came to me about his eating habits.

The more I found out in that manner, the more I was convinced that I was on the right track. I had noticed that a poorly balanced diet, whether too much or too little, would show up in a bad mouth.

My patient would have cavities in his teeth—a sign that he was getting too much starch and not enough protein in his diet. Another patient would have puffy and bleeding gums. He was a victim of pyorrhea, as a result of eating too much meat and gravy.

As I kept telling my patients, a balanced diet contains all the elements needed to build the supply, keep it in repair and supply it with energy. That kind of foodstuff, eaten regularly — in the right amounts, but with variety that will keep the appetite whetted, will produce a strong, healthy body and sound teeth. But, if the diet lacks some essential element, the bodily machine will soon be out of kilter. Sooner or later the teeth will suffer along with other tissues and organs.

To cite an instance: Mr. W. P., a Deaf Smith County ranchman, had been my patient for years. Until middle age, he had nearly perfect teeth. One day in his late 60s, Mr. W. P. came into my office. My check up showed 22 recently formed cavities in his teeth.

"Mr. W. P. (I told him), I see that you have gone and dropped the diet that had kept your mouth healthy all these years. You are not getting the fresh vegetables, salads and other nourishing foods like you have lived on most of your life — and you are not drinking milk like you did."

"You are right, doctor," Mr. W. P. confessed. "I have developed a strong appetite for white bread and syrup."

About the same time another old acquaintance of mine, J. N. Jacobsen, then 77 years old, came in for a check-up. Mr. J. had an almost perfect mouth. All his life he had needed but one tooth extracted and two filled. He had no cavities then, but firm gums and healthy mouth tissue.

"How long has it been, Mr. J., since you had these fillings put in?"

"Let's see, that was 60 years ago when I was a boy in Denmark."

"How long have you lived in Hereford, Mr. Jacobsen?" "I have been here 41 years."

"I suppose you brush your teeth after every meal, like the books say, and all that?"

"No, doctor, I don't. I have been too busy making a living to fool with a toothbrush."

"Well, what do you eat as a rule?"

"Anything at all that grows in our garden. As you know, doctor, it is the best in town."

"But you do eat some meat?"

"Once in a while, I'll eat a steak or something."

Through the 30-odd years that I practiced in Hereford I kept questioning my patients like that. To my way of thinking, the answers I got proved my theory: A natural, balanced diet of unrefined food will produce sound teeth and a sound body. Never once, since I formulated that tenet, have I found a bad mouth in a person who lived on that sort of diet — fresh vegetables out of the home garden, whole wheat grown on our completely fertile Deaf Smith county soil, with plenty of milk from cows that had grazed on our home pastures. The best test was milk. That was the only food that, until recent times, people generally consumed raw.

On the other hand, when a patient did come into my office with a lot of cavities in his mouth, I could tell him what had caused his teeth to decay.

"You are eating too much white bread, hot biscuits and cake, sugar and syrup, pies and jellies (I would tell the patient). As a result, your body is not getting the protein and minerals it needs for healthy functioning. You are not taking in calcium enough to build strong bones and sound teeth. You do not drink enough milk or eat enough raw foods to keep you supplied with vitamins and minerals. Those are the spark plugs for your bodily machine. You do not eat enough roughage, such as bran, for healthy elimination of waste matter."

"I guess you have me sized up about right," doctor, the patient would answer. "I do have a dainty appetite."

Well, it is an unhealthy appetite (I would warn) and it is your worst enemy. Just keep indulging that appetite a few years longer and you will be needing a full set of false teeth. I can make you some good ones. They won't decay at all and you can take them out to clean them at will. If that is what you want, just go on feeding that jade appetite of yours. But if you want to keep your natural teeth you will have to change your eating habits drastically and change right now.

Now, you go home, Mr. S. and begin eating sensibly. Take some wheat bran — or some home milled whole wheat would be better — soaked in whole raw milk for breakfast, or, if you prefer, you can heat the cereal. With it take some fresh fruit or if you can't get that, some fruit or vegetable juice out of a can. That is better than coffee or tea, but milk in some form is your best drink.

Then, for dinner have some fresh vegetables out of your garden — string beans or blackeye peas or what have you — and drink the pot liquor. Take part of your dinner raw — tomatoes and lettuce leaves will do nicely. You can have a little meat and just a dab of butter, but no hot biscuit and syrup. Eat whole wheat or corn bread. If you must have a dessert, let it be stewed or fresh fruit.

Repeat that, with whatever variety your wife can concoct, for supper. With all that, you must contrive in one way or another to consume your quart of milk a day. You can beneficially take part of it in buttermilk or clabber, cottage cheese or ice cream.

Mr. S. now you go and follow this schedule I have mapped out for a year. Then come and tell me about it. By that time, I'll guarantee, I'll be able to give you a better report on your mouth.

Such is the good counsel I would drum into my patients' ears, day in and day out, during my entire practice; but, for the most part, the advice would go in at one ear and out at the other.

That was what kept me in the dental business.

CHAPTER 17.

I TRY TO "SELL" MY FELLOW DENTISTS

After I had established the facts concerning the Deaf Smith County natives' immunity to tooth decay to my own satisfaction, and had formulated my theory as to the reasons for that immunity, I felt that I ought to tell my fellow dentists about my discovery. I had not forgotten that talk at a luncheon table during an Alabama State Dental Convention several years before (Chapter 10) and the encouraging word I had received from Dr. Young of Anniston.

Whenever I'd go to Amarillo for the Panhandle District Convention of the Texas Dental Association, I would eagerly talk up my discovery to any brother practitioner who would listen. I'd meet up with an old friend in a hotel lobby or on the street corner and before our talk had gone far beyond the usual polite inquiries, "how's the folks and how's business", I'd be talking with all the enthusiasm I could muster about my findings.

My report would run something like this:

"In Deaf Smith County where I practice, most of the people born and raised there grow up with sound teeth. Ranch people do not drink milk, they will not milk a cow. If it weren't for people moving in from other parts of the country, I'd have almost no tooth repair business. About 90 per cent of my business consists of making new sets of teeth for pyorrhea patients. After a newcomer has lived in Hereford a few years, provided he has drunk lots of raw whole milk, he develops resistance to teeth decay. Even the tooth cavities which he brings with him when he comes to Hereford will be glazed over, if he has drunk raw milk. It is my conclusion that certain elements in the Deaf Smith County soil, when taken up by crops and pasture grasses, and from there taken into the human body in bread, meat and vegetables, in milk and in butter, create an immunity to tooth decay. Milk does the immunizing job better than any other food, simply because milk is the one foodstuff that everybody did consume raw until recent years."

As a rule, my fellow practitioner would hear me out patiently, then shake his head and walk away without comment. I suspect that my old friend, Dr. R. L. Rogers of Amarillo, spoke for them all when he said to me:

"Doctor George, your story sounds fantastic to me. It stands to reason that dental conditions in Deaf Smith Country are identical with dental conditions here in Amarillo or anywhere else. Common sense, as well as, dental science tells you that."

Nevertheless, I kept on investigating. The more patients I found with perfect, or nearly perfect mouths and the more I questioned them about their eating and drinking habits, the more firmly I was convinced that I was on the right track.

After eight or ten years, I concluded reluctantly that telling my story was of no use. I decided on a different tact. I would gather facts, say nothing and abide my time. Then, when the opportunity did present itself I'd spring my discovery on the scientific world.

I received a powerful lift from Dr. C. A. Pierle of Canyon. For years, that distinguished scientist, the head of West Texas State College chemistry department, had served the Texas State Dental Association as laboratory technologist. He unfailingly participated in district conventions in Amarillo. Dr. Pierle gave me the most valuable cue which I received from any source during all the years in which I investigated dental decay and its underlying causes.

One time I heard Dr. Pierle challenge a group of dentists who were thrashing out the fluorine theory:

"Why all this talk of fluorine in your drinking water? You will find more fluorine in milk than in water."

As he had spent the better part of a lifetime on the chemical laboratory, Dr. Pierle, scientist, knew whereof he spoke.

Another time I heard Dr. Pierle sum up a spirited discussion of dental decay, its causes and its prevention in one line:

"Examine your milk drinkers."

I kept that line with me at my dental chair in Hereford, and put it to work. I asked every patient who came to me: "How much milk do you drink every day. Do you drink raw milk? Do you drink buttermilk and clabber?"

For years I made inquiry of my patients as to their milk habits. Almost invariably I found that the possessor of a mouth full of sound teeth had been a consistent milk drinker from early childhood. A surprisingly large number liked either buttermilk, clabber or both.

The significant fact is that the milk those patients drank came from cows that had grazed on native grass in Deaf Smith County pastures. In winter, as a rule, the cows had grazed on green wheat.

CHAPTER 18

A STATE OFFICIAL LENDS ME AN EAR

In spite of all the discouragement I had met with, I kept on investigating and piling up evidence which bore out my theory.

At last I got a break.

Dr. Edward Taylor, director of dental health for the Texas State Board of Health, had come up from Austin for our district convention at Amarillo (January, 1939).

When I found Dr. Taylor disengaged for a minute or so, I called him aside and told him briefly what I had found out about the Deaf Smith County people's seemingly immunity to tooth decay.

"Believe it or not, Dr. Taylor, there are men and women in the Hereford country where I practice who live into middle age and even older without a single decayed spot on their teeth. I have tried for years to tell my fellow dentists here at the convention about my discovery; but they just laugh at me. None will believe me and up to now, not a single one has accepted my standing invitation to come to Hereford and let me show them. This same phenomenon existed in their own practice, but without a comparison the truth is not seen.

"Finally, I decided it was no use trying to sell my ideas to my fellow practitioners. I determined to keep my own counsel and keep on investigating. The more facts I uncovered, the more firmly I was convinced that I was on the right track.

"Doctor, we have something down there—and I believe it comes out of our mineralized soil—that builds immunity to tooth decay. That is my theory and there is proof of it right in the people's mouths. I do not ask you to take my word for it, Dr. Taylor. Come to Hereford and see for yourself."

Though Dr. Taylor had listened to me patiently and seemed interested, he did not commit himself at the time. I thought that would be the last of the matter. But about six months later, a letter came from Dr. Taylor: "Would it be all right for me to come up and see you—say, one day next week?" he inquired. "Sure," I answered, "come right ahead."

When Dr. Taylor arrived, I called the city superintendent of schools by telephone: "Dr. Edward Taylor, with the State Board of Health at Austin, has come up for a dental survey. The Doctor wants to visit the homes of typical Hereford families and inspect their teeth. He wants the families picked just at random. Could you get one of your teachers to show Dr. Taylor around and introduce him?"

The superintendent said that could be arranged. Of course, Dr. Taylor's guide knew nothing of the survey objective and nothing of dental conditions in the families to be visited.

During his stay in Hereford and vicinity, Dr. Taylor looked at the mouths of 56 persons. Forty-three were native-born and had lived in Deaf Smith County all their lives. All those life-long residents had not a single decayed tooth. The greater number had never had a toothache in their lives.

"Dr. Heard, this thing is simply incredible," Dr. Taylor said when he had finished. "I am going to do something about it."

So when the public schools opened the following September (1939), Dr. Taylor sent a public health dentist to give all his time to the study of the Hereford pupils' teeth. There were 810 children, ages 6 to 18 years, enrolled that year. The survey ran through two full years.

In his bulletin, "Factors in Caries Immunity in the Deaf Smith County Area," Dr. Taylor sums up the survey findings; Out of 289 children, age 6 to 18 years, who had always lived in Deaf Smith County, only 111 (38.4 per cent) showed tooth decay— averaging only 1.29 decayed spots per child.

The public health dentist had found only half as much tooth decay as Drs. Dean and Jay had found in Galesburg, Ill. Until then, Galesburg had shown the lowest tooth decay rate among school children of any city in the United States.

Like Hereford, Galesburg has fluorine in its drinking water. Its 1.9 p.p.m. compares with Deaf Smith County's 2.2.p.p.m.

For comparison Dr. Taylor carried out dental surveys in two Texas towns that had no fluorine in their water and other areas with varying amounts of fluorine. Abilene's school children showed 4.04 and Tyler's showed 6 decayed spots each.

Beginning at Tyler, the report concludes, "the tooth decay rate drops as we approach Hereford geographically."

CHAPTER 19.

I BECOME A CELEBRITY OVER NIGHT

After Dr. Edward Taylor got up before the American Dental Association's research section, at its annual convention in Houston on an October day in 1941, and reported what he said might prove to be "one of the most important discoveries in dental history."

Until then, I had pursued my studies and observations with out much thought of their bearing on the dental profession as a whole. I was concerned solely with my own little corner of Texas. I wanted, first of all, to convince my fellow dentists in that area that I had something. My practice in Alabama gave me a comparison which is our best proof.

Nobody would listen to me until Dr. Taylor came up to the district convention at Amarillo in January, 1939. Except for that lucky visit, the world probably would not know to this day about that discovery of mine: the right combination of elements in the soil, when taken up by food plants and then consumed, as nearly as practicable in their raw state, will prevent tooth decay.

The next morning after Dr. Taylor's report, my office telephone rang wildly. The Amarillo News Globe, and also our hometown paper, the Hereford Brand, wanted my picture in a hurry. I asked, "What is this for?" "Haven't you seen the papers? You are in newspaper front page headlines all over the country."

The Associated Press correspondent had put the high spots in Dr. Taylor's Houston report on the wires. Clever feature writers had seized upon the dramatic points in the speech and had played them for all they were worth. Indeed, here was news which came home to everybody. Imaginative reporters forecast "a world without a toothache." That would be achieved simply by adding the right elements to the soil in which food crops grow and in the drinking water.

Actually, as Dr. Weston Price and other authorities have shown, the problem is not so simple as that. But it seemed that simple at the time to those newspapermen.

As for my part in the picture, Dr. Taylor had made me out a sort of cross between a hero and a martyr: "If this research continues successfully, it will be the old story of a man being mocked for proclaiming a fantastic truth."

My 20 odd years of futile effort to get my fellow dentists to listen to that truth; my determination to stick to my guns and wait for the recognition which I knew would come; my unflagging search for new evidence to back up my conclusions; and all the while a world suffering the excruciating pains of toothache quite needlessly: all that was duck soup for the news writer with a flair for dramatic stuff.

In his speech Dr. Taylor had added his own little touch of drama a bit exaggerated, he later remarked—by telling his distinguished audience how I had called him aside and whispered my story into his ear because for years the dentists in the Amarillo area had ridiculed that story.

Don't take my word for it, I had said to Dr. Taylor, "Come up to Deaf Smith County and see for yourself".

"It is now Dr. Heard's turn to laugh," Dr. Taylor commented, "but being a Texas gentleman and a philosopher, he doesn't."

For months after that I was swamped with interviewers, callers, scientific inquirers and mere curiosity seekers. Besides, I was besieged with telephone calls and the letters piled high on my desk. Each day fresh ones would come in. To have answered them all would have required a battery of secretaries. I could not have paid their wages. This being a celebrity, I quickly discovered, was not all it was cracked up to be.

Some months after Dr. Taylor gave his findings to the American Dental Association, Collier's sent Mr. J. D. Ratcliff to Hereford. I told Mr. Ratcliff my side of the story and took him to see some typical Deaf Smith County families—children, adults, middle aged and elderly persons—who had perfectly sound teeth. Our visitor took a batch of story-telling pictures which he used to illustrate his article. Then he went to Austin and obtained Dr. Edward Taylor's side of the story along with his photograph.

Mr. Ratcliff's article came out with a great splurge of black type headlines and pictures in Collier's of December 19, 1942. His title, "The Town Without a Toothache," has been linked with Hereford ever since. With more than a million copies printed, Collier's really put Hereford on the map. Then in February, 1943, The Reader's Digest reprinted a condensed version of the article. Thereby our town became known around the world.

In his article Mr. Ratcliff had said: "Mention toothache in Hereford and the people would not know what you were talking about. Even their oldest horses have full sets of sound teeth. The town may possibly contain the answer to your own dental difficulties."

As I have undertaken to show in these pages, that statement is not strictly accurate. It is a bit of intentional and pardonable exaggeration.

As I have also stated emphatically in these pages, I disagree completely with the theory that the fluorine in the water (from 2.2 to 2.7 p.p.m.) is mainly what prevents tooth decay. I also question the theory of certain dietitians that the "astonishingly high" phosphorus content of the wheat, carrots, turnip greens, cabbage and lettuce grown in the Deaf Smith County soil—ranging from 30 per cent above the average in the greens to seven times normal in the wheat—is the principal factor. It is more reasonable to suspect, as Dr. Taylor apparently does, that the calcium or magnesium, or perhaps those two elements together, are responsible.

I say that the trace minerals listed in the spectograph analysis of our wheat—boron, iron, copper or iodine—or most probably, Dr. Weston A. Price's "activator X" does the business. Anyway, the final answer must wait on more research.

All along I have contended and I here repeat that it is not this or that mineral, but all the minerals and vitamins combined that build perfect teeth.

Every farmer who grows food or feed crops should have his soil analyzed and supply the missing elements.

This hunt for specific minerals which build sound teeth seems foolish to me—but to refuse to eat food which contains all the elements the body needs until that food has been refined and those life giving elements taken out—as in case of white flour and white sugar—is positively idiotic.

To feed a growing child white bread and refined sugar and pasteurized milk is like leaving out cement and using dirt for mixing concrete.

It is no wonder the child who is habitually fed like that is pale, stunted, sickly and sometimes delinquent. Nine times out of ten your child criminal is more sinned against than sinning.

My considered opinion is that not only; much child crime, but anti-social behavior in youth and adult, such as reckless driving, could be prevented by correct diet. Correct food will keep the human machine running smoothly and efficiently. Correct food will not only set the body right, but will rectify thinking and morals.

Anti-social behavior results when the nervous, hence the mental, equilibrium is upset. A common cause of that trouble is an excess of white flour, sugar and other refined carbohydrates, hence a lack of body-building protein and especially nerve-steadying minerals and vitamins in the food intake.

As laboratory tests on white rats have proved, that unbalanced diet is the source of high strung nervous tension back of reckless driving. That same tension creates a craving for alcohol and other false stimulants. Faulty diet makes the alcoholic, and in some cases may produce the narcotic addict.

CHAPTER 20.

IN WHICH I PROMOTE A RACKET

Even after Dr. Taylor and his staff had completed their two-year survey of dental conditions in the Hereford area and he had reported his findings to the American Dental Association, my fellow practitioners in the Texas plains country remained as skeptical as ever.

As I was to learn on my visits to the Amarillo convention each spring, most dentists resented all the fanfare which my discovery had created. They liked least the play that Collier's gave Mr. Ratcliff's article, "The Town Without a Toothache," (December 19, 1942). All the publicizing was none of my doings. I was as much surprised by the turn of affairs as anybody else. Yet some took the attitude that I had overstepped the bounds of dental ethics.

One time my good friend, Dr. R. P. Purcell of Amarillo, told me that I had "created a racket."

That criticism did not disturb me. I realized that I was being unorthodox, like all the discoverers of essential truth before me had been. But I could not believe that any line of inquiry which promised to benefit humanity could justly be called unethical or racket.

Then I recognized, as I still recognize, the fact that dental science still has a lot to learn about the causes and prevention of tooth decay.

On that point, in the second paragraph of his bulletin, Dr. Taylor warns his public: "This report is to be partial and preliminary . . . The studies we have begun warrant a continuation on a larger scale."

Previous surveys had been conducted with guinea pigs, monkeys and isolated tribes. The Hereford area surveys used normal people living typically American lives as guinea pigs.

When I'd ask an old resident how he had managed to live 60-odd years without tooth decay, he would answer—as Mr. Ratcliff quotes: "Never thought about it. Funny thing though; you could bring spindly fishbone cattle up here from Mexico, graze them for awhile and they'd turn into fine, big-boned animals." All the horses in the county have fine teeth. The oldest dog in town, age 16 years, still has all his teeth."

In his Collier's article, Mr. Ratcliff quotes Dr. Taylor as ascribing the low dental decay rate in Deaf Smith County to fluorides, sunshine and calcium, as to phosphorus in the soil. Later Dr. Taylor added that the high magnesium content of Hereford's water (67 p.p.m.) probably had something to do with preventing tooth decay.

Evaluating the part which each mineral in soil and water plays, Mr. Ratcliff concludes is a "job for a trained research group, armed with money and talent." The minerals in water are not food and can't be assimilated.

"What is needed is more fundamental work on the causes of tooth decay. This research in Deaf Smith County has opened the door for it."

With that conclusion I agree completely. It follows that my findings and theory merely have supplied a new point of departure for dental research. I am content to reflect that I have started something.

For all that, it was an occasion of intense gratification to me when the Texas State Dental Association at its annual convention in Houston unanimously endorsed my findings and voted me a life member, exempt from dues.

That was one of the big moments of my life. My gratification over the honor was heightened by the circumstance that the motion which led to it had been introduced on the convention floor by my old friend, Dr. R. L. Rogers of Amarillo. For years Dr. Rogers had been the most outspoken and unsparing critic of my theories.

Now I could feel as though my lifelong labors had been as bread cast upon the waters.

It appears that people have not discovered the difference between organic and inorganic minerals and vitamins. They do not differentiate the two kinds of fluorine—one is a food, the other is a poison. The water in Hereford is about 2 p.p.m. while in wheat it is many hundreds p.p.m. In wheat it is a food, in water it is a poison.

CHAPTER 21.

I PURSUE MY STUDY OF FOODS AND SOIL

During the years since the State Board of Health completed its study of the Hereford school children's teeth, under Dr. Taylor's direction, I have kept right on gathering evidence which seems to bear out my theory: The Deaf Smith County natives or long time residents owe their immunity to tooth decay mainly to having lived upon home grown foodstuff, which they consumed in the unrefined state, as it came from the soil. That type of food contains the minerals and vitamins, abundantly supplied by our mineralized soil, which are essential to keep the life processes going. If those minerals are removed as when the flour mill removes the bran and shorts from our wheat, then the special benefits to be derived from our soil are lost.

There are plenty of people right here in Hereford, the famed "Town Without a Toothache" who demand refined white flour and who would rather take their vegetables from a tin can shipped in from elsewhere than fresh from their mineralized soil. Those are the people, as I have proved to my own satisfaction, who make up the 40 percent that Dr. Taylor's field men found, suffered the same tooth decay as elsewhere—say, as in my old town of Albertville.

The fact is, I am firmly persuaded, that those people who reject natural for refined foods suffer from slow starvation which affects not only the teeth but every organ in the body, including the brain. Therefore delinquency.

In his California laboratories, Dr. Frances M. Pottenger, Jr., proved that fact when he fed his white rats on the same denatured, refined foods that many parents feed their children. The result; the glossy coat of the rats became dull and their hair ruffled. The little brutes then were vicious and dangerous to handle. Is it any wonder, then that children fed upon the same deficient and refined foods sometimes turn out to be problem boys and girls?

The natural inference to be drawn from this experiment is the right sort of food—that is, food which contains all the vitamins and minerals which the growing body requires for its proper development—given children in the right proportions would prevent delinquency as well as tooth decay and other maladies.

Nature's unrefined foods also nourish the brain which is the seat (though not the source) of the person's moral being.

Again I say that, in fact, Hereford is "The Town Without a Toothache" only for those natives and long time residents who live entirely or mainly upon the foods grown in our mineralized soil and consumed without processing which destroys or damages their vitamin and mineral content. It is equally essential that the people who would eat for sound teeth give up pies, puddings, cakes and other white flour products, along with candy, jellies, preserves and syrup.

Since the Hereford country became famous for its freedom from tooth decay, people keep writing from all over the country to ask me about the tooth-building virtues of this or that foodstuff. My answer is that any sort of food crop which grows in our mineralized area, or in any completely fertile soil is likely to be good—but that it takes a considerable variety to supply all the elements required for proper body building (which would include the building of sound teeth).

For sake of appetite, variety is desirable. However, just two articles of food, if produced in our mineralized area and not tampered with—wheat and milk—will supply a completely balanced diet.

I mean that the whole wheat grain and raw milk should be consumed. When it is milled for white flour, wheat is robbed of its minerals. Milk, when pasteurized, loses vitamins and may lose the activator which helps the body assimilate its calcium. It is my conviction that a person could live upon whole wheat grain soaked in milk and nothing else, and thrive upon such a diet; but after a while the fare would grow monotonous. Both body and mind would demand a change and would revolt to get it. That is why I recommend variety in the diet.

It is wise to know the soil in which one's food grows. That soil should be analyzed and the elements which are lacking or in short supply for producing healthful foods should be added. That goes for the trace minerals as well as for nitrogen, calcium,

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potash and phosphorus. It takes all the elements to build sound bodies. A lot of minerals besides phosphorus, calcium and magnesium go into the making of sound teeth. Only a dash of iodine, boron, fluorine or copper may be required, but unless that dash is supplied, the building process is impaired and the foundation laid for tooth decay.

CHAPTER 22

ON OTHER TOWNS WITHOUT TOOTHACHE

Driving downtown in Hereford on the way to Canyon one day during World War II I gave two soldier boys a ride. They told me that they had come from Laurens County, South Carolina. That was where my maternal grandparents, the Dendy family, had lived. I learned these boys knew about some of my distant cousins.

Naturally, the first thing I noticed about my passengers was that both of them apparently had perfect teeth.

Have either of you boys ever had toothache or had a tooth filled? I asked them.

"No, sir," the boys answered in concert, "in our whole lives we have not been to the dentist once."

Do the people you know back in Laurens County have mouths full of sound teeth like yours?

"Most of them do," one of the boys said. "Among all my chums back home, I cannot remember one who had a filling in his teeth."

And none ever had the toothache? "None that I remember of, sir."

men it occurred to me that there might be less tooth decay in Laurens County, South Carolina, than in Deaf Smith County, Texas.

Laurens county is in the western part of the State (some miles south of Spartanburg) but still, I suspect, within the limits of South Carolina's famous "iodine belt." That is a mineralized area comparable with the Texas high plains. It is doubtless far richer in iodine than our Hereford country.

The essential thing is that the soil should contain, as it apparently does contain, all the minerals essential to body-building, including the "activators" which spark the life processes.

On my trip through the Southeast in the spring of 1947, I verified what the two soldiers had told me concerning South Carolinian's teeth.

When in Charleston, I had a chance visit with a dentist, Dr., who told me he was 65 years old. His father and grandfather before him had practiced in that same office. He handed me a mirror and invited me to have a look at his mouth. I found a beautiful set of teeth, spotless but slightly worn.

As I told that dentist, I saw no reason why Charleston should not match my home town of Hereford as "A Town Without a Toothache."

Altogether what I saw in the Carolina iodine belt confirmed my theory: whether in Hereford, Charleston, New Orleans, New York or Los Angeles, if the people only will eat Nature's food, produced in completely fertile soil, in ample variety, and will drink plenty of whole raw milk, produced from fertile pastures, they can avoid toothache and most other aches that commonly plague mankind.

On the other hand, during my leisurely trip through Alabama, Florida and Georgia that year, I was struck particularly by the inhabitants' lean and hungry look.

In that part of the country, though he may eat his fill every day, the average person is undernourished. The reason for that is plain to be seen. The soil is thin and worn out. More than one hundred years of cotton farming have robbed it of nitrogen, and washed most of the topsoil into the creeks and rivers that carried it down to the sea.

On top of that, what foodstuff the people do get from their scant soil is largely spoiled by refining. Most persons in those parts won't eat whole wheat grain or bread made of it. They demand white flour, with the grain's most valuable minerals and vitamins taken out. They want that flour made into hot biscuits to eat with butter and syrup. They won't use the outer green leaves on a head of lettuce. They won't chop a head of cabbage or a bunch of carrots and eat them raw. That is saying, people back east are very much like people in Texas.

I say that people living in the southeast could have as sound teeth as Dr. Taylor and his staff found in Deaf Smith County, Texas. To begin with, they might enrich their soil with whatever minerals a chemist's analysis showed to be lacking—not neglecting to add plenty of organic matter, whether in the form of manure, compost or plowed under trash.

Next, the people might eat the food crop, just as it came from the soil—lots of it raw and none of it refined.

As evidence I found there convinces me, the South Carolina iodine belt even today—though some of it has been farmed for almost 300 years—contains all the elements required to build sound bodies, including sound teeth.

Furthermore, I do not doubt there could be sufficient food crops produced in the completely fertile soil now to be had—or soil that could be built up by known methods, using both organic and chemical fertilizer, to supply our entire population with a proper diet—the same that has given our Deaf Smith County residents their nearly perfect teeth.

Let me add this word of warning: the food stuff thus produced would be of little value unless the people consumed it partly raw and completely unrefined.

The important fact that dentistry, with its single track mind overlooks is that poor teeth spell a poorly nourished body.

Apparently, my profession is interested primarily in finding a drug or chemical which applied to the teeth will kill the bug that bores into the enamel—and so prevent decay. Of late a great many cities have been experimenting with fluorine applied to small children's teeth or by adding a part or two per million to the drinking water.

I doubt if the method will work unless at the same time, and consistently, the children so treated are fed upon a diet, including whole raw milk, which contains about all the elements of which the body is made.

The children so nourished, I say, will be building sound teeth along with sound bodies. What counts the most, those children will be developing sound brains. Build brain cells and with them the capacity to think, to tell the false from the true—and cultivate the moral sensibilities—and we will be rearing a generation without delinquency, a generation immune to the delusions abroad in the world today.

It takes right nutrition to make a man of independent mind, one who thinks for himself and stands on his own feet.

CHAPTER 23.

I FIND SUPPORT FOR MY THEORY

Just as I was leaving Hereford for New York to appear on the "We the People" broadcast (that was in January, 1948) an old acquaintance of mine, Louis Smith, who runs a farm a few miles from Hereford, hailed me and volunteered a bit of corroborative evidence on "The Town Without a Toothache."

"Dr. Heard, as you know, I have lived here in Deaf Smith county practically all my life, I have raised a family of five daughters. All of them are grown up and some have families of their own now. Not one of them ever had the toothache or a single decayed tooth."

What did your girls have to eat as they grew up, Mr. Smith? I asked him.

"Well, doctor, they ate mostly what we produced on our farm — green vegetables out of our garden or canned vegetables off the pantry shelf; fresh beef whenever we killed a yearling, side meat and ham from the smokehouse; and, oh yes, we kept cows and the girls always had all the fresh sweet milk or buttermilk they could drink."

That's what did it, Mr. Smith, I told him—especially the milk. The fluorine in our water may have helped a little, but that is not the whole story, only a small fraction of it. And that is what I am going to tell the country when I broadcast in New York. But the program director told me what to say. *

Almost daily during my dental practice, I was reminded that the average mother knows little about what her children eat. The mother will set a table full of assorted victuals before them and then will let each child eat according to his taste.

Too frequently it turns out that the children devour white bread and syrup, jams and jellies, hot biscuits, cakes and pies. And they hardly touch the spinach, lettuce, slaw or salad. As they are stuffed on sweets, the children do not drink milk enough to build strong bones and sound teeth.

For a case in point, one day Mrs. Johnson brought her twin boys, Tom and Bill, 14 years old, into my office for a check up.

After I had looked over their mouths, I remarked: You boys do not eat the same food. "Oh yes, they do," Mrs. Johnson put in. "Both have eaten at the same table all their lives."

Long experience had taught me never to argue with a mother concerning her child's doings. So I turned to the boys: Bill, do you like the stuff that Tom eats? "Naw," answered Bill, "I wouldn't eat what Tom eats."

Now, Bill's mouth was healthy, his teeth sound and spotless, his gums firm. That boy had consumed his share of raw vegetables and fruit and had always drunk his milk. Maybe he asked for a second glassfull.

By contrast, Tom's mouth was red and congested. His gums were puffy and easy to bleed. Tom was a heavy meat-eater and liked lots of gravy on his bread and potatoes. That boy sniffed at his spinach or turnip greens, pushed aside his salad or raw tomatoes.

As I told him, Tom is breeding for himself a nice case of pyorrhea. If he didn't change his eating habits, he would be coming back before he was an old man, for a set of false teeth.

In my practice I have noticed that and informed thoughtful parents generally were more interested in seeing that their children got plenty of proteins, starch, sugar and fat in their daily diet. Their home demonstration agent had instructed them concerning the calories that supply energy and the elements which build bone, muscle, blood, brain and nerves.

But I say that a diet can contain all those elements and still be deficient enough to cause bodily ills or to induce tooth decay. Perhaps the children's food lacks certain essential minerals and vitamins: iron, magnesium, iodine, fluorine; vitamin A, B, C, D or G; thiamin, riboflavin, niacin or folic acid.

To be available to the human body, I say, those minerals must be organic and colloidal. They have to be supplied through plants which have taken them up from the soil and processed them—or through animals that have fed on those plants—that is, in the form of meat, milk, butter and eggs. Then, if the food is not supplied in its natural, unadulterated and unrefined state, a considerable portion of the essential mineral and vitamin content is lost.

For those reasons, I always advised my patients: It is better to consume your wheat ground up hulls and all, without the bran or shorts taken out. Better bake potatoes with the jackets on and eat them whole. Do not throw away the outer leaves of mustard, spinach or lettuce. For it is the husks, peeling and outside leaves that store up the most minerals and vitamins.

All my research and all the authorities I have investigated together have about convinced me that cooked meats of all kinds are undesirable foods.

CHAPTER 24.

I TRY OUT MY THEORY ON A PATIENT

Some years back I had the opportunity to test out my theory concerning the curative value of the right foods.

My brother, D. Heard, then 80 years old, had run a farm at Millersville, Alabama, through most of a lifetime. It was his life time habit to put in a full days work, from sunup 'till sundown, hardly missing a day until his health broke down.

When he went to the hospital in Birmingham, the doctors there gave him a going-over and then informed him that he had an incurable heart condition. He would have to take a complete rest for an indefinite time, the diagnosticians added.

Then came the blow that was the hardest for D to take: "You will have to give up all farm labor," the doctors told him. "Well, then, if I cannot work any more," D. answered, "I'll just go see my brother out in Hereford, Texas."

He knew about my being an invalid at death's door for years and had heard how the fast that the naturopath prescribed and diet which I followed after that had set me on my feet and had kept me doing very well.

"Maybe George can do something for me," D had reasoned. "It is worth taking a chance for."

"But you are not able to travel a thousand miles by train," the doctor then told D. "Your heart is liable to fail you at any time." "Well, I'm no good here," said D. "So I think I'll try it."

When the invalid arrived at our house, he was naturally all fagged out from his long journey. He had his pockets full of pills which he thought he had to take, several each day, to keep on living.

Gradually at first, we put him on special food. We took away most of the staple foods he had lived on most of his life and thought he must have—meat and potatoes, hot biscuits and butter, pies and cakes. We fed our patient on vegetables and milk mostly, salad, fruit and all the pot-liquor we could get down him.

After a few days on that fare, D was up and around. At my direction, he would walk a piece every day, and extend his stroll gradually until he could go wherever he liked.

D looked so much like me, that a great many townspeople who saw him trudging along took him for me, and thought I had relapsed back into my old invalidism.

Whenever he would come in from his walk, D would protest to my wife: "Mattie, I'm hungry." Whereupon Mattie would fix him a bowl of turnip greens, dandelions or mustard greens, that was mostly pot liquor and would crumble a little corn bread in the liquor. Naturally in his mind's thoughts—"not that stuff," D said, "I want some meat and bread, a man's ration."

Mattie would over rule him. So he would consume the greens, pot liquor and sometimes a salad of lettuce leaves, raw cabbage and carrots.

All the time D thought he was starving but his pulse was good and when he would weigh, the scales showed that he had not lost a pound.

As he gained strength, he would take on a little more exercise every day. He was naturally active and used to hard labor. So we had to caution him almost daily not to overdo the thing. One day he came home and announced proudly that, for the first time since he was a boy he had chinned himself.

After he had been with us for seven weeks and we were on the point of putting him on a normal diet, he suddenly informed us that he was catching the next train for Alabama.

On his way home, he stopped by the Birmingham hospital to pay his bill. "Let us check you over to see how you are doing by this time," the doctors suggested.

The diagnosticians who two months before had told my brother that he was suffering from an incurable heart condition now could find nothing wrong with him.

"What did your brother do to you when you were in Texas?" asked the doctor.

"Wa-al," answered D, "he didn't do nothing, except put me on a diet."

"Well, then, what did he give you to eat."

"Let's see, now: for breakfast, a raw fruit salad and a glass of sweet milk; for dinner, some dandelion greens and all the pot liquor I could hold; for supper, some turnip greens again all the pot liquor I could drink.

"Was that all?"

"Wa-al on some days I would eat a little cabbage, green beans, cauliflower, sweetcorn, a boiled onion, a fresh ripe tomato or whatever Mattie—that's my brother's wife—could find at the vegetable market."

"Do you mean to tell me, Mr. Heard, that during that entire seven weeks, you had no meat, bread, potatoes, rice or other solid food?" .

"Wa-al, once in a while Mattie would give me a little corn bread to crumble into my pot liquor . . ."

"But you cannot live on that kind of stuff."

"You have just finished examining me, doctor. I'm alive ain't I?"

Thereupon D walked out of the hospital and he has not been back since except for prostate treatment. That was 10 years ago. The last time I heard from D he was in good health and doing his farm chores without missing a day.

CHAPTER 25.

ON CREATING AND PRESERVING MAN

Everything in this world of ours, everything in the Universe is governed by Law. Whether it concerns the guiding of an airplane, the building of a highway, the motions of earth and moon, or keeping the stars in their courses, it is Law that does it. That identical principal governs the functioning of the human body.

The longer I live the more I am persuaded that the master key to health is the food we eat. It stands to reason that we cannot maintain our bodies in health until we keep our bodies supplied with the materials of which they are made. When a man's food is normal, his body will be found normal also. When his thinking is normal, the chances are that his body is functioning normally.

Most ailments which afflict mankind today, including those which are called incurable, I do believe, result from food which has grown on poor soil, or which otherwise lacks certain elements which are essential to keeping the bodily machine in repair and running smoothly.

A principal reason why the general run of foodstuff you find in the grocery store is deficient in minerals and vitamins which the body needs is because that food in its natural state is too easily spoiled. Your food processor refines the stuff so that it will keep until it reaches the consumer. That is good business; but, I say, it is not good dietetics. When the miller takes out those elements in wheat which would spoil, he has robbed the grain of life sustaining vitamins.

There is the secret of white flour's keeping qualities. But that fact also accounts for the vitamin deficiencies and other forms of slow starvation—which sooner or later, will afflict the person who eats white bread exclusively.

Tests at various experiment stations have shown that cows fed on whole wheat will thrive; but cows from the same herd, equally healthy when the tests begin, when fed for some time on white flour exclusively, would die of heart failure. Other experimenters, like Dr. C. A. Pierle at Canyon, Texas, and Dr. Francis Pottenger in California, have tried white rats on an exclusive white flour diet, with identical results: The rats starved to death, with full stomachs.

What is bad for cattle or rodents, I submit, is bad for children and grownups, too. During my early dental practice in Alabama, my heart would bleed for children only 2 years old brought to me with half their teeth decayed. As I was to learn years later, those children, fed upon whole raw milk, whole wheat cereal and other vitamin—and mineral-rich foods would have had mouthfuls of sound teeth.

For proof, I can point to my own three grandchildren—Martha, 13; George, 10 and Jane, 5 years old, who live on the George G. Heard dairy farm not far from Hereford. None of those children have a single decayed tooth. If all three should live a 100 years and keep on eating the same kind of food they have lived on up to now, they still will have perfect teeth—and, I dare prophesy, sound bodies otherwise.

All three children are heavy milk drinkers; but take their milk raw, not pasteurized. Practically all the food which those children consume is produced on Deaf Smith County's mineralized soil. The bread they eat is made from home grown wheat, which has been freshly ground in a special mill and the whole grain has gone into the loaf—bran, shorts and all.

The children's meat diet consists mostly of beef and chicken these cattle and fowls raised on the place, grazed on native grass and lush green wheat, with a supplement of home grown alfalfa and grain sorghum. After they had been fattened, the steers and chickens were slaughtered and put into deep freeze.

Most of the garden vegetables that will grow anywhere in the country flourish on the Deaf Smith County irrigated farms. The Heard children like them all and take a portion of their vegetables raw—celery, lettuce, asparagus, cabbage slaw, tomatoes, carrots or a dozen kinds chopped up together in a salad. For much of the year, those vegetables come fresh out of the garden; but deep freeze keeps the stuff "garden fresh" the rest of the time.

For sweetening, the youngsters consume honey. By way of exception, the Heard children get most of their fruit from other parts: apples, oranges, grapes, bananas, figs, peaches and plums.

For some years I supplied butter picked up from Deaf Smith County farms to a Mr. J. H. Fuehrer, who lives at Coopersburg, Pa. He fed that butter to his children and also gave them whole wheat cereal, freshly ground from his own mill. He saw to it that the children ate raw vegetables, fresh fruit and nuts, to make up a balanced ration of protein, starches, sugar, vitamins and minerals.

His neighbors thought Mr. Fuehrer a crank—just a bit off. But when his daughter, Helen, became of school age, he had his payoff. When the time came to put the first-year pupils through their health tests, the school dentist examined 62 little mouths, all very much alike. This 6 year old was the only one free of cavities. Each child had some decayed teeth.

When he came to look into the mouth of Pupil 63, Helen Fuehrer, 6 years old, that dentist was astonished. The child had a mouthful of perfect teeth. The dentist had many questions to ask the little girl and her mother—curious to know how she had lived six years without getting even one small blemish on her teeth. He did not know what magic that butter from Deaf Smith County, Texas, had worked in the child's mouth—and being told, would not believe it.

It was the food that little Helen had put into her mouth that had built her sound teeth and, at the same time, as the school physicians later found, had built her a sound body generally.

The right foods, properly balanced, not too much and not too little, will create a healthy body. The wrong foods, which do not build or repair cells and tissues, clog up the bodily functions and cause disease.

Frequently, people say that something they ate made them sick. More often than otherwise, the actual cause of their trouble is something they did not eat. The bodily functions may suffer as severely from lack of the food elements, or vitamins which serve as catalysts, to keep them going, as they would suffer from poison. The healthful diet is a perfectly balanced diet.

CHAPTER 26.

ON THE CHEMISTRY OF DEAF SMITH COUNTY FOODS

In his search for the secret of Deaf Smith County people's immunity to tooth decay, Dr. Edward Taylor took samples of flour milled at Hereford from home grown wheat to the Texas State Laboratories in Austin for analysis. For a long time previously, our millers had publicized "the extremely high protein content," of the native flour?

The State analysis (says Dr. Taylor's bulletin) showed that the Hereford flour contained 0.199 per cent of phosphorus, as compared with 0.037 per cent for standard flour. That is, the Hereford breadstuff was found to be more than five times as rich in phosphorus as general run of flour produced elsewhere.

On the other hand, the Hereford sample showed 0.0274 per cent of calcium, as against 0.0370 per cent in the standard product.

Observe, reader, that what Dr. Taylor had analyzed was the refined white flour. Most of the life-giving mineral elements to be found in Deaf Smith County wheat had been taken out of that flour in the bran and shorts.

Laboratory tests with white rats—by Dr. C. A. Pierle of Canyon and other research scientists—demonstrated that even the Hereford flour, when fed exclusively would eventually starve the animal. It takes the whole grain unrefined to supply the minerals essential to life—inorganic, and hence, assimilable, form.

Contrast the State lab findings as to the Hereford mills' white flour with the list of elements, including trace minerals, which The Twining Laboratories of Fresno, California only recently found in Deaf Smith County wheat grains by spectograph methods: Phosphorus, potassium, magnesium, calcium, sodium, sulphur, silicon, chlorine, fluorine, iodine, manganese, iron, copper, aluminum, strontium, molybdenum, zirconium, nickel, chromium, boron.

Now, reader, where the State lab's analysis shows but 2.2. to 2.7 parts per million of inorganic fluorine in our drinking water, the spectograph analysis shows almost 400 parts per million of organic fluorine in our wheat grains. This analysis from The Twining Lab of Fresno, California.

It stands to reason that the other food crops grown in our mineralized soil—Irish potatoes, beans, carrots, turnips, mustard greens or anything—if analyzed by spectograph would be found as rich in fluorine, as well as calcium, iron, magnesium and the other minerals which our soil contains.

In the foodstuff those minerals are organic and assimilable. In water, they are inorganic and of doubtful value.

If it is fluorine that prevents decay, it is not the inorganic fluorine in the water but the organic fluorine in the wheat, green vegetables and milk, that does it. But it is my theory that the calcium in our wheat and potatoes—but mostly in our milk—has more to do than fluorine with preventing rickets and tooth decay in children and preventing pyorrhea (a bone disease) in adults.

Dr. Taylor surmises that the heavy calcium content of our wheat, native grass and other deep-rooted plants is taken from the caliche sub soil. Analysis by Texas Highway Department Laboratories shows that this subsoil does contain 71 to 88 per cent calcium carbonate that plants can assimilate.

Too, the Federal soil scientist working in this area (with the U. S. Soil Conservation Service) found that Deaf Smith County top soil is particularly rich in organic matter, nitrogen, phosphate, potash, iron, magnesium, calcium and most of the trace elements required for plant growth.

Those Government field men—H. F. Clearman, Deaf Smith county agent tells me—have spotted numerous saucer like basins scattered over this area, that catch and hold most of the rain that falls on them. Thus practically all the rainwater either seeps into the ground or evaporates. In those basins, run-off is practically non-existent.

That fact at least partially accounts for all those trace minerals which the spectograph shows in our wheat. For hundreds of years, what rainwater fell on those basins has trickled down into the subsoil. None has run off, carrying the magnesium, calcium, chlorine, fluorine and other minerals which rainfall normally leaches out of the soil.



No. 1—Dr. Heard appraises Deaf Smith County potatoes grown on his farm.



No. 2—The doctor inspects Mr. John Paetzold's carrots.

CHAPTER 27.

ON FOOD THERAPY AND SOIL FERTILITY

Man is made of earth, the Bible tells us, and all the elements in his body are found in soil. As man is forever on the go, he wears out. He must replace worn-out cells and tissue with food. If the replacement is done right, so as to put back the lost elements in the right proportion—if a person is fed on a well-balanced diet—then the bodily health is maintained. That is all there is to food therapy.

As man is a living organism, the elements of the earth which his body needs must be changed from inorganic to organic form before his cells and tissues can feed upon them. It is true, there are bodily glands, such as the thyroid, which work that change on certain elements—but the most efficient machine for the manufacture of organic food elements are the plants.

It is true that the animals which supply man with beef, pork and mutton, with milk and butterfat, with eggs and so on, perform that function also, at second hand but for most people quite satisfactorily.

The prophet Isaiah says that "All flesh is grass." One could go one step further and say as logically that all flesh is earth.

In his informative pamphlet, "Soil, a Foundation of Health," Arnold P. Yerkes lists the chemical elements of which the human body is made: calcium, nitrogen (protein), phosphorus and potassium. Those four, together with water—hydrogen and oxygen (H₂O)—were thought before the days of modern chemical analysis to constitute the human body.

In addition to those basic elements, modern chemical analysis by means of the spectroscope and other detection instruments reveals that the normal healthy human body contains at least 17 minerals as shown in the accompanying table—but in the form of various salts, the sulphates, nitrates and so on.

Observe that all those minerals are organic in the body. In the soil, all are inorganic. The change in form has taken place in the food plants.

Now, as chemical analysis further shows, by far the most effective factory for changing inorganic minerals taken up from the soil, into organic minerals for the body's use is wheat.

If the reader now will compare the list of minerals in his body with the list which Twining Laboratories (Fresno, California) found in Deaf Smith County wheat, he can see for himself how near wheat—particularly that grown in our mineralized soil— comes to being a perfect food in itself. We are indebted to the Pitman Grain Company for this analysis.

Out of 21 minerals (not counting water or the vitamins) which the chemists have detected in the human body the Twining Laboratories found 16 in our High Plains wheat. Of the elements which Twining omitted, only nitrogen and carbon are important. But the feed experts say that green wheat plant is a well nigh perfect protein feed for dairy cows.

One would say, then, that Deaf Smith County wheat, the whole grain, not white flour from our mills, together with milk and butterfat from cows grazed on our wheatfields, would abundantly supply all the elements which the body needs for balanced nutrition, hence for bodily health. A few years ago, as I have related Dr. Weston A. Price proved that by feeding the sick patients on cream from Bonnie Brumley's Deaf Smith County herd.

Most other food crops grown in our mineralized area, I do believe, say potatoes, cabbage, carrots, beets, turnip greens or onions—were they put through the Twining Laboratories for a complete analysis, would show as varied and as high a mineral content as Deaf Smith County wheat showed.

That is why I tell inquirers concerning diet:

Eat what you like, but first make certain that it comes from mineralized, which means completely fertile, soil. Then, consume the foodstuff unrefined, say, the whole wheat grain freshly ground or Irish potatoes baked with their jackets on. So far as that is practicable, eat the food raw.

It is my considered opinion that most, almost all, the credit for "The Town Without a Toothache"—which is also a town with relatively little tummy ache or other common ills when these foods are used in natural state—is due the soil in which our food and feed crops grow. It is a soil richer than any other I know about in life-giving minerals and activators.

The reader will ask: Why cannot the farmer in other parts have his soil analyzed to see what it lacks, when matched against the formula for a completely fertile soil—and then add the needed elements?

Theoretically, I see no reason why that cannot be done, but in practice the thing is difficult. However, despite that "conservation day" program on the Widow Thrasher's farm in Maryland a few years back, and the many shows of that sort put on over the country, it is a fact that soil which has been wearing out or washing away over a hundred years cannot be rebuilt in a day. Restoring the soil is a long slow process—like growing cover crops and plowing them under.

It is true, however, that a lot can be done with a rundown and worn-out farm toward making it immediately productive. First, add a generous supply of humus in the form of cow manure, or leaf mold or plowed under trash. Finally add a mixture of more compost. If the land slopes, better terrace it to keep the rain from carrying off the soil and the fertilizer with it. A field that is so treated will grow a better crop of wheat, corn or beans, which would analyze high the essential food minerals, but, I dare say, it will not match wheat grown in our Deaf Smith County mineralized soil. That wheat is so valuable and so rare, that I agree with my fellow researcher, A. W. Erickson: "There should be an act of Congress to prohibit the use of wheat grown in the high plains mineralized area for any other purpose than food for man."

The same statute ought to prohibit the refining of that wheat for man's food. I would add a clause forbidding the manufacture and sale of white flour. In fact, that process is an act of robbery. It strips the wheat of the minerals and vitamins essential to body building. To obtain the full food value of wheat use it freshly ground—but use the whole grain.

In Bernard Macfadden Health Review (September, 1950), I find support for my theory. The editor-publisher headlines his leading article: "Death Penalty in Russia, Imprisonment in England . . . for Selling White Bread." Mr. Macfadden cites his own 50-year fight against white flour, and he comments:

"We still have white bread . . . now enriched with synthetic elements but this does not in any way equal the superior food that is supplied by the whole grain . . . Nature's way of building human strength."

Only lately the findings of Dr. Arthur J. Mitteldorf, with Armour Research Foundation in Chicago, have added immensely to the weight of evidence concerning the need of trace elements in food that both animals and people consume.

The spectograph used for chemical analysis will reveal the presence of trace elements which ordinary methods pass by. If those elements are missing from the green grass, hay or grain that the milk cow, beef steer, pig or laying hen feeds upon, the animals suffer certain ills. There is evidence that folks who consume the milk, butter, beef, pork or eggs will suffer the same sort of deficiencies—or anyway "may not be as healthy as they could be."

All told, there are about 20 elements, says Dr. Mitteldorf, which animals must have in adequate amounts, if they are to keep in the pink of condition. There are oxygen, hydrogen, carbon, phosphorus, potassium, nitrogen, magnesium, calcium and sulphur. Those may be called the basic elements which the living body requires to keep functioning.

Among the trace elements, Dr. Mitteldorf mentions six as essential to the plans upon which animals and humans feed: Copper, boron, iron, manganese, molybdenum and zinc. He lists four others as essential to animals, though plants can do without them, sodium, cobalt, chlorine and iodine.

Now, as Dr. Mitteldorf explains, it is impossible to find the trace elements, let alone measure them with a kit containing a few chemicals. That is like seeking a missing person, with no clues at all to his whereabouts among the million residents of a large city.

As yet only a few farmers give a thought to supplying their soil with trace elements. The greater number do not know there is such a thing. Those who do, mostly lack facilities for analyzing their soil for the trace minerals. By shotgun methods they easily can put out too much copper, boron or chlorine, and thereby damage their crops.

Spectrographic analysis is expensive but once the job is done, the farmers over the entire area will be informed as to what elements they should add for a completely fertile soil. As a rule, *it* takes very little per acre to do the job. A ton of hay contains one-tenth of an ounce of boron. To supply that only about 10 pounds of borax to the acre is needed. That is true as to all the other trace minerals.

The farmers' immediate need, says Dr. Mitteldorf, is to get a full scale analysis of the different kinds of soil and the crops that grow in each kind. When that was done, the experts could compile deficiency tables, showing exactly what was needed to make each kind of soil completely fertile. Then the farmer could take a sample of his soil to the county agent to get it typed. A look at the tables would show him what trace elements he must add and how much of each to get his soil just right.

Reader, I have said, and I now repeat, that the fluorine needed for preventing tooth decay were best added to the soil rather than to the drinking water, as several cities are doing experimentally. Care would be needed not to supply too much and thus damage crops. Still, the tests made for Deaf Smith County indicate that the growing plants would not store up enough fluorine to harm the people who consumed them as food. The Twining Laboratories in California found up to 790 p.p.m. of fluorine in Deaf Smith County wheat. Compare that with 2.2 p.p.m. in the Hereford drinking water. Yet people eat the wheat without being poisoned. The fluorine in the wheat is organic hence non-poisonous.

A COMPARATIVE TABLE

Reader, suppose we put the two lists side by side:

I.	II.
Mineral elements in the human body as shown by spectograph analysis:	Elements in Deaf Smith County wheat as revealed by a recent spectograph analysis: by Twining Laboratories at Fresno, California :
1. Calcium	1. Calcium
2. Phosphorus	2. Phosphorus
3. Potassium	3. Potassium
4. Iron	4. Iron
5. Copper	5. Copper
6. Zinc	6. Zirconium
7. Chlorine	7. Chlorine
8. Sodium	8. Sodium
9. Magnesium	9. Magnesium
10. Manganese	10. Manganese
11. Sulphur	11. Sulphur
12. Boron	12. Boron
13. Aluminum	13. Aluminum
14. Fluorine	14. Fluorine
15. Iodine	15. Iodine
16. Nickel	16. Nickel
17. Arsenic	17. Strontium
18. Silver	18. Chromium
	19. Molybdenum
	20. Silicon

CHAPTER 28.

HOW PURE MILK BUILDS SOUND TEETH

Reader, would you like to have my formula for building sound teeth in one line ? Well, then, here it is:

Drink plenty of pure raw milk every day.

I have observed in routine examinations of school children's mouths here in Hereford that the children whose families kept cows, as a rule, had perfect teeth.

It is also true, almost without exception, that my adult patients who had lived until middle age or older without tooth decay had been heavy milk drinkers all their lives.

My theory is that milk, through the medium of native grass— or better, green wheat—that the cow feeds upon, takes up the essential body-building (and that includes tooth-building) elements from our mineralized soil and makes over those elements into a form that the body can assimilate more readily than it can assimilate any other foodstuff.

That, of course, is the effect which Dr. C. A. Pierle, Canyon chemist, had in mind when, at the outset of my investigation, he gave me that wise counsel: "Watch the milk drinkers." I am convinced that where a person drinks plenty of pure raw milk, it makes up for the deficiencies in poor food otherwise. During my 30 years dental practice in Hereford, I cannot recall having found a patient with a bad mouth who had consumed milk enough in his diet. That is assuming that the milk was taken raw, not pasteurized.

One difficulty is that so much milk is poorly handled from the time it leaves the cow's udder until it reaches the consumer's table that it has to be pasteurized to keep it from turning sour. Now, the effect of pasteurizing, to my way of thinking, is to kill most of the live elements in the milk, including the vitamins and the friendly bacteria; but to retain all the filth it may have gathered through careless handling. It appears that people think pasteurizing cleans the milk of its filth. A better way to protect the people's milk supply, I contend, would be to inspect and analyze, then condemn all unclean milk. Pasteurizing does not clean the milk. On the contrary, there is evidence that the heating process disorganizes the milk's mineral content so that it no longer is assimilable.

For evidence, on my recent tour of California I met my great-niece, a young woman who had perfect teeth until she began drinking pasteurized milk. Then her teeth began to decay. My theory is that pasteurizing had deprived her of the calcium in the milk. At the same time the heat had destroyed the vitamin C, which good milk holds as abundantly as citrus fruit. On that same California trip I visited Dr. Francis M. Pottenger, Jr., at Monrovia. In the great laboratory connected with his sanatorium, Dr. Pottenger tests out all sorts of foods and every imaginable diet combination on hundreds of white rats and cats.

In one experiment a laboratory helper, a University of Southern California student, informed me the objective was to try out two of the supposedly best foodstuffs that people consume—cooked meat and pasteurized milk—on the cats and to keep a record of the animals' reactions through several generations. But the cats so fed did not live long enough to complete the experiment, neither did the cats breed. In order to continue the experiment, the laboratory workers were compelled to add raw meat and raw milk to the cats' diet.

While I was attending the American Academy of Applied Nutrition annual convention in California last April, 1950, I picked up two items which greatly interested me: One item concerned a large dairy herd that supposedly had been given anti-toxin against undulant fever. Sometime later, the veterinarians discovered to their chagrin that by mistake they had injected pro-toxin. Every milk cow on the place developed undulant fever. As the scientists had given the opinion that the virus did not affect animals' flesh the cows were butchered and sold as beef. It developed that many of the persons who ate that meat contracted the fever. By contrast, none of the 400 customers who had drunk the milk from the infected cows were stricken with undulant fever. The other item which struck me forcefully concerned a herd of cows that had been fed on white flour, as a substitute for protein feed. None of the animals lost weight; but one by one the flour-fed animals died of heart disease. That item bears out my contention: the refined starches in white flour are dangerous alike to cows and men.

A few days before I left on my California tour last spring, I met Dr. Bruce Storm of Elk City, Oklahoma. Dr. Storm had gone to Dr. Pottenger's sanatorium at Monrovia when he was almost helpless with arthritis.

"While you are in California, Dr. Heard," he told me, "be sure to go and see Dr. Pottenger."

When I introduced myself to Dr. Pottenger, he confirmed what Dr. Storm had told me concerning himself:

"Why, Dr. Storm was so nearly bent double with arthritis of the spine that he came into my office almost on all fours like a cow, using two short canes as front legs."

After some weeks on Dr. Pottenger's diet, Dr. Storm could leave the Sanatorium, walking upright and well on the road back to recovery. He was now on his own and when I saw him he was the picture of health. Food therapy works. We are what we eat.

CHAPTER 29.

FLUORINE IN WATER IS NO PANACEA

For years I have held to my conviction that fluorine in their drinking water was not the real secret of the Hereford people's seeming immunity to tooth decay. Common sense told me that if the drinking water did it, everybody who lived here would have sound teeth. All the people drink the same water. Not all of them eat the foods which grow in Deaf Smith County soil—and take those foods in their natural state, not refined by modern milling. Those who do eat that type of food, produced at home, are the ones who have the healthy mouths.

Let us assume for the same argument that fluorine is an important element in preventing tooth decay. It is an established fact that fluorine is found in the water, but it is also found in the soil. That is where the element actually counts. The food plants which grow in our soil, some of these, wheat, corn, potatoes, green beans, carrots, turnips, cabbage and lettuce, all take up the inorganic fluorine and change it to organic form which the human body can assimilate. Analysis by the Texas State Laboratories at Austin showed 2.2 to 2.7 p.p.m. (parts per million) of fluorine in the Hereford water. By contrast a recent spectograph analysis of Deaf Smith County wheat showed hundreds of parts per million of organic fluorine salts. That, I say, is the type of fluorine which helps prevent tooth decay.

The calcium in that same wheat, found as abundantly, builds strong bones and sound teeth. But when milk cows graze on our green wheat fields in winter, when the young plants are richest in protein and mineral content, the milk that those cows give, contains about all the elements that the body needs—all in readily assimilable form. The body requires all the minerals it is made of—not calcium and phosphorus alone. When the children in this area are given plenty of fresh raw (not pasteurized) milk, along with fresh ground whole wheat, and are given meat only sparingly, it is then, I have observed, that they have healthy mouths—and that means, they have healthy bodies.

I have concluded from these observations that any immunity to tooth decay which fluorine may provide is best had through organic fluorine which, as spectograph analysis shows, both our wheat and our milk contain. I am as firmly convinced that it is the inorganic fluorine in the water, not the organic salt in wheat or milk that causes brown mottled teeth in children. As that discoloration is invariably produced when the child is young, it is not a stain, but a part of the enamel. After the enamel is formed, no brown stain is deposited on it.

How does the fluorine get into the water in the first place? My theory is that it is dissolved from the soil by rainwater and carried down to the underground reservoirs by seepage—but that fluorine is inorganic.

For the reasons stated, I question if the experiments which a great many cities are carrying out—adding sodium fluoride to their drinking water will get results enough to avert tooth decay. We need not only to prevent caries, we need to immunize every organ. To do that, I say, add fluorine to the soil along with nitrogen, potassium, phosphorus and all the trace minerals which a competent spectograph analysis show that soil to be deficient in. Then, grow food, feed or grass crops in that soil—and use the food or feedstuff thus produced in its fresh natural state, unrefined and unprocessed.

To cite an instance, one of my small patients, B. London, 12 years old, who had lived in Deaf Smith County all his life, came to me with six front teeth decayed. Yet every tooth decayed in that boy's mouth was mottled from excess fluorine. I found the enamel of the teeth too badly chalky to hold fillings. There was nothing to do but put in a bridge.

Here, I say, is strong evidence, not to say positive proof, that fluorine does not prevent tooth decay. Certainly, that boy's mouth pleads powerfully for going slowly with this fluoridation business. It appears to be of benefit, but why not feed good food and prevent all disease?

Recently, I ran across some authoritative support for that oft-repeated contention: Dr. V. O. Hurme, director of clinical research at the Forsyth Dental Infirmary for children, Boston, had written to the New York Times pointing to the need for "thorough study of the physiologic effects of fluorine," and Dr. Hurme adds:

"I am painfully aware of the great dearth of information on the relationships between fluorine ingestion and general physical well-being . . . No one knows how many people with diseased kidneys are having their lives shortened . . . by not more than one part per million of fluorine in their drinking water . . . The teeth of our people may be important, but are we ready to maintain that they are even more important than the organs of our adult taxpayers?"

What Mr. Hurme has written, it seems to me, bears out my questioning if inorganic fluorine, a poison, should be taken into the human body at all. On the other hand, people consume organic fluorine at the rate of several hundred, not just one or two, parts per million, when they consume Deaf Smith County wheat and milk. Spectograph analysis shows that the fluorine is there—but the body tolerates the organic fluorine, takes what it needs and discards the rest and no harm is done. That is my theory; but it, too, will have to be verified by study and tests. Fluorine in water is not compatible with health.

Again, I say that the principal factor in preventing tooth decay is not fluorine in the water, but a well-balanced ration of tooth-building minerals in children's diet that prevents tooth decay. It may be fluorine, but it must be organic if assimilated.

I do not doubt that investigation would show those 60 per cent of Hereford school children who, according to Dr. Taylor's survey had no decayed teeth in their mouths, had plenty of raw milk to drink, especially during their one to eighth year. The 40 per cent who had some decayed teeth did not get enough raw milk during their tooth-formative ages.

When Dr. Weston Price of Cleveland fed cream from a Deaf Smith County dairy to children whose teeth had begun to decay prematurely, the decay soon stopped. Read his book, "Nutrition and Physical Degeneration" (pp.260-75)

What did it ? Not fluorine in the drinking water, but the sum total of food elements, including vitamins or activators contained in that cream. Those cows had grazed on lush green wheat growing in our Deaf Smith County mineralized soil. Undoubtedly, cow's milk provides the mineral elements needed to build sound teeth in the form easiest assimilated; but Dr. Price also fed his patients on our Deaf Smith County whole wheat, freshly ground.

CHAPTER 30.

FALLACY: A CLEAN TOOTH NEVER DECAYS

When I was a young dentist back in Alabama, many a practitioner would display in his waiting room a sign which ran something like this:

"A clean tooth does not decay."

Somehow I never got around to hanging up one of the signs in my office at Albertville. About that time, the makers and distributors of tooth powder, tooth paste and mouth wash took up the slogan. "They played it up in advertising and still do. As a result, you hardly ever encounter the sign in a dentist's office today. Most dentists, I suspect, took down the sign because they could not brook the advertisers' extravagant, unfounded claims. Even so, the profession still sanctions the theory that a tooth which is kept constantly clean—by brushing after every meal—will be free of the germs which bore into the enamel and cause decay.

Consequently, a new licensed technologist has entered the profession—the dental hygienist. Her job is to keep the patient's mouth clean and thereby, theoretically, prevent tooth decay. I say that cleaning teeth has nothing to do with whether they decay or not. Don't get me wrong, reader. I believe in clean mouths as strongly as anybody; but for social and hygienic reasons, not to prevent tooth decay. That requires body-building, which means tooth-building, food.

To cite an instance. Some years ago a patient came into my office from 20 miles west. The old fellow had never used a tooth brush in his life. He had the dirtiest mouth I had ever seen. His teeth were thickly covered with tartar, scales and caked food particles. Mr. G. P. was not in trouble when he came to see me. His wife had persuaded him that he ought to have his teeth cleaned whether they needed it or not. When I had cleared that lifetime accumulation of foreign matter off his teeth—a full day's work—to my astonishment, I had uncovered as fine a set of teeth as I had run across in 50 years' practice. My questioning brought out that during his ?? odd years, Mr. G. P. had lived mostly off of the land. He ate fresh vegetables out of the home garden, beef and bacon from off the range and wild game whenever he could shoot it. He ate a lot of his vegetables raw and raw fruit when he could get it. G. P. was also a heavy milk drinker. He told me that he was particularly fond of buttermilk and clabber.

For contrast, a lady from a distant city stopped in Hereford one day on her way to California and called at my office. Mrs. N. had just about the cleanest mouth I had ever found in a patient. She told me that from early girlhood she had religiously kept the old textbook rule: "Brush your teeth after each meal." For all that, my patient had a mouthful of fillings, three or four to every tooth, between the teeth, near the base and all around. There was more gold than enamel showing in her mouth.

What Mrs. N. told me about her eating habits bore out my theory completely. All her life she had lived on pastry, cakes, pies, jams and jellies. She had eaten but little meat, raw or cooked vegetables or fruit. She drank tea instead of milk.

CHAPTER 31.

AN EXPLORER COMES TO TEXAS HIGH PLAINS

For the better part of a lifetime, Dr. Weston A. Price, Cleveland dentist, was exploring Africa and Amazonian jungles, South Sea Islands and other out-of-the-way places where primitive people live with little or no contact with civilization.

Dr. Price summed up his findings in his book, "Nutrition and Physical Degeneration." That manual is a "must" for every dentist who would understand the role that a person's food and drink plays in building sound teeth. The evidence which he gathered in his explorations, evidence that he sets down in great detail, had led Dr. Price to conclude that the primitive would be free of tooth decay, and at the same time be free of "white man's diseases," so long as he lived out of contact with modern civilization and its refined foods but lived where he could obtain sea food.

In his book, Dr. Price proves his point with any number of case studies; but even more convincingly with photographs. Conversely, this manual shows as strikingly that when the white man introduces his refined starched foods, the primitive man who drops his raw diet for "civilized" foods speedily pays the penalty. His teeth decay and he suffers all sorts of aches and pains.

Now, my findings here in Deaf Smith County convinced me beyond a shadow of a doubt that the white man himself, right in the middle of his civilization, with no contact with sea, and even without imported sea foods, can have perfect teeth as long as he lives. What is more, the same factors that give a man sound teeth can assure him long life free of disease.

Of course, Dr. Price knew about my findings, and until his death a few years ago, an incalculable loss to the profession, showed a friendly interest in them. While he maintained his great experimental laboratory at Cleveland, Dr. Price would send to various parts of the country for cream which he would feed to patients to test the effects of the vitamins and minerals which it contained on the building of teeth.

For some years Dr. Price used cream from Bonnie Brumley's farm in Deaf Smith County. He learned to work seeming magic with the butterfat which cows grazed on Mr. Brumley's green wheat had produced. For example, when he fed that cream to an arthritis patient for a while, the arthritic pains disappeared. But when Mr. Brumley would take his cows off green wheat Dr. Price would immediately notice the difference in the type of cream he was getting:

"You have changed your feed," Dr. Price would write. "The last lot of cream which you shipped me does not measure up to your usual standard. It is short on vitamins and various minerals which my patients require."

Mr. Brumley would protest that he was feeding the same scientifically balanced ration that he had been feeding his milk cows right along. The green wheat which the cows had grazed on made the difference. The native grass might have been as good but Bonnie did not have this.

Later on, Dr. Price came to Hereford and I drove him out to Bonnie Brumley's place. Then and there, the nutrition expert set the dairy farmer right on the relative values of dry and green feed:

"The butterfat that you get from cows on dry feed, Mr. Brumley, is of value only as grease."

Then Dr. Price explained that the curing of hay and fodder, the milling of corn, oats, rye, grain sorghum, alfalfa and other crops vitiated and so largely destroyed the vitamins which grass and grain contained. In like fashion the proteins, calcium, phosphorus, magnesium, iron, iodine and the numerous trace minerals that are found in the fresh green and growing plant is in organic and assimilable form, undergoes chemical changes when the plant is cured or the grain is milled. Besides, as the biochemists have learned, the chlorophyll which gives the wheat blade or the leaf its green color plays a vital role in the plant's food factory. No chlorophyll, no food.

While Dr. Price was here I took him out to Ira Ott's poultry farm. Soon after we arrived Mr. Ott drove up with a batch of day-old baby chicks. Immediately, Dr. Price gave the poultryman a trade secret:

"Would you like to have every one of those baby chicks live, Mr. Ott? Well, here is what you do: for its first ration, give each chick a few drops of cream from cows which have grazed on a lush green wheatfield."

It was on that visit the dentist-explorer confided his "hunch" to me: "Your Deaf Smith County soil, Dr. Heard, contains an element which never has been named. When taken up in wheat and other food plants that element is very powerful. I call it 'activator X'."

CHAPTER 32.

ON DENTISTRY AND FOOD THERAPY

I have often wondered if we dentists were perfectly honest with ourselves, we would not have to acknowledge that we are following a repair trade rather than a profession. To be sure it takes skill and a certain precision with tools to drill out a cavity in a tooth and fill it with gold or alloy. But I say that dental science hardly has begun to solve the problems which challenge it.

There remains a vast unexplored field of research in which a few bold pioneers like the late Dr. Weston A. Price of Cleveland have blazed trails. It is my fond belief that one day my profession will follow out those trails to their indicated goal. In his great book, "Nutrition and Physical Degeneration," that ought to be in every dentist's working laboratory, Dr. Price tells how he restored supposedly incurable cases to health simply by feeding the patients the foods which they required for perfect nutrition.

For example, Dr. Price tells the case history of Freddie S., 8 years old, suffering from convulsions and a broken leg that for three months had refused to knit together again. As he relates, Dr. Price put his small patient on a diet of fresh cream from Bonnie Brumley's dairy farm near Hereford, Texas. Mr. Brumley's cows, pastured on lush green wheat producing milk rich in vitamins and minerals. It was Dr. Price's theory that the milk contained an added element (which he called 'activator X') that enabled the child to assimilate the minerals in his food. In addition he gave the patient a gruel made from freshly ground Deaf Smith County whole wheat and served with whole raw milk. The wheat had to be ground fresh because the flour in a few days oxidizes and thereby loses essential minerals. The milk had to be consumed raw because the 140 degrees essential temperature for pasteurizing, which kills vitamins and puts the food elements out of balance. Soon after he was put on the diet, the child's convulsions stopped. Before long, the broken bone began knitting together. Six weeks after this treatment Freddie S. climbed a waterspout at the corner of the house.

Then, on pages 272-3 of his book, Dr. Price describes Johnnie F., 5 years old, and bed-ridden with supposedly incurable arthritis rheumatism and heart lesions. Dr. Price began feeding that boy butterfat from Bonnie Brumley's dairy, and on the same diet of wheat gruel and raw milk he had given Freddie S. within a year Johnnie could leave the hospital in sound health.

Evidently enough, both those children were suffering from a lack of correct nutrition to supply their small bodies and keep them working properly. In plain terms, the children were being starved. All the elements which the human body contains, including the trace elements, must be in the food we eat. If a single item is missing the delicate balance of nature is upset and the body suffers.

It follows that most sick people derive their troubles from the dinner table. They do not get a balanced diet. For that very reason, I contend, almost 40 per cent of the young men called by the selective draft during World War II were rejected as physically defective. Those young men had been starved all their lives. A person can starve on a full stomach when the vitamins and minerals which his body needs are not in the food he eats. Hence, tooth decay, tuberculosis, arthritis, heart disease and about 150 other common maladies may be traced to vitamin and mineral deficiencies in the patient's diet.

Food therapy is still an infant branch of the healing art. I say that it deserves more attention from both the medical profession and the public than it has received up to now. Food therapy, indeed, promises a new era for healing and when that comes, great credit will be due pioneers in the field, like Dr. Price. That practitioner demonstrated how dentistry could use food therapy to prevent, and also to help repair, tooth decay. During my 30 year study of dental conditions in Deaf Smith County, I found evidence a plenty to that effect. Note what Dr. Edward Taylor says in his report:

"People moving here (into Deaf Smith County with the usual number of cavities . . . ceased to develop further cavities . . . and in teeth brought there five years previously . . . the cavities had acquired hard-glazed surfaces." All decay did not glaze over because the foods grown here were not consistently used. What forces had stopped those teeth from decaying further and started to repair the damage already done? The same, I say, that had mended Johnnie's broken bone and Freddie's heart lesions from Dr. Price's direction. Both decayed teeth and ailing tissue will heal when the cause of the trouble is removed. That cause is malnutrition . . . the lack of properly balanced diet.

Invariably, there is talk at our dental conventions about "educating the laity" in mouth care. I felt like getting up and asserting: Better educate the profession first.

It seems to me that dentists generally are still very much in the dark as to the cause of tooth decay, toothache, pyorrhea and other diseased conditions which they are called upon to treat. There is a difference between treatment and cure, but prevention is the ideal way.

To be sure, when it comes to repairs on decayed teeth or replacing teeth with bridgework and plates, our American dentists rank with the world's best.

But our dental theories concerning the causes and prevention of tooth decay simply will not hold water. For example, a writer in the Journal of the American Dental Association recently asserted :

"I would not be challenged were I to say that tooth decay were the result of bacterial invasion."

Well, I challenge him. I say that "bacterial invasion" is invariably and quickly overcome by the normal resistance of a healthy mouth. Those bugs, the Lacto bacillus acidophilus, that the dental scientists charge with causing a tooth to decay, are found in everybody's mouths; but, when food is correct the tissues are immuned.

Why is it, then, that the rate of tooth decay varies from zero (as in certain Deaf Smith County families) to above 95 per cent? Not the bacteria count in the patient's mouth, but the food he has lived upon makes the difference. The mouth must be correct when the food is correct. When the mouth is correct, the bacteria do no damage.

CHAPTER 33.

IN WHICH I GO TO THE HOSPITAL

Some years ago I went to Baylor Hospital in Dallas for an operation to remedy a condition which had arisen from my advanced years, an enlarged prostate gland. Before the operation the hospital staff went over me with a fine tooth comb. Excepting that one difficulty, the doctors found that my bodily organs were sound and were functioning surprisingly well for a man in his early 80s. They said, in effect, that I possessed a young body.

After the operation I had to lie still for a day or two, I had temporarily acquired a tube—one end in my bladder and the other end in a bottle under my bed. When the tube came out, I felt like I was plenty able to go home. Every day I would walk down the hall to the scales and weigh. When I found myself gaining in weight, that was lots of fun. To begin with I would not eat what was brought me. The hospital food was nutritious enough, but not healing. There was not a vitamin or healing mineral in the whole platter-full. Then, the nutritionist asked me what I wanted for supper. I answered:

"I do not know what you have, but bring me anything in the pantry that has not been changed from its natural state. I will eat it, be happy and say nothing about it."

As the nurse had never heard of 'natural food,' I hit her on the blind side. She did not understand me and so my diet was not decidedly improved. It so happened that Grady Wilson of Hereford was loafing in the hall. His wife was a patient in the hospital. I gave him a list to buy at the food store, including celery, nuts, dates, prunes, other dried and fresh fruit. To the dietitian's horror, I lived on that. The funny part was, I kept gaining weight. However, about that time the food from the kitchen began improving until I could ask for nothing better.

Sometime later my friend, Bill Hunter, was a patient at Baylor. The dietitian told him that Dr. Heard was the toughest patient the hospital ever had. Really I did not mind eating what was brought me, but I wanted to call that young lady's attention to the fact that all she knew about was conventional diet. Obviously, she did not know that the human organism would heal more rapidly on raw foods. The explanation is that in raw foods, the healing vitamins have not been killed by heat.

When I visited California in the spring of 1950, I called at Dr. F. M. Pottenger's laboratory, under management of the University of Southern California. The caretaker, a student, told me about an experiment with cats. One lot, fed on cooked beef and pasteurized milk, had no offspring. It took raw meat and raw milk to make those cats reproduce their kind.

Now, I had been living on Nature's foods, unprocessed and unrefined for the most part, though not exclusively, for the whole 20 years since I took that two week's fast for a clean-out, under the direction of Naturopath H. A. Brown of Canyon, Texas. It was then and there I quit being an invalid and started being a real person. Since I began living on a natural diet, I observed that any small injury I received, a bruise or cut, would heal up promptly without the use of iodine, salve or liniment. I recall a typical incident while I was helping some Camp Fire Girls in an outing in the mountains, gathering some wood to build a fire. I scraped a wide swath of skin off my hand.

"O-o-o-h, doctor, you're hurt bad," the girls cried. "You must go to the nurse cabin as fast as you can and get iodine and adhesive tape put on before you get infection."

The girls wisely had been taught to treat a minor hurt like that. They should observe the rule for themselves, I told them; but for me, no antiseptic was necessary. Because I had lived on natural foods, with plenty of vitamins in them, my bloodstream was well supplied with germ-killers more potent than iodine, the sulfa drugs or penicillin. So that little scratch would heal itself in a jiffy. The following day I could prove to the girls I was right.

Ever since I had learned how to nourish them, those alert guardians in my bloodstream, the phagocytes, had protected me against any sort of disease germ which threatened me. My well-nourished body had automatically corrected every maladjustment of cells and tissues except enlarged prostate. It is my conviction that a completely balanced diet kept up for a lifetime, would build effective bulwarks against tuberculosis or cancer.

Consequently, as I lay upon my bed at Baylor Hospital and thought about my 500 fellow patients, I could realize that perhaps nine out of 10 were there needlessly. A little applied food science—I mean a well balanced diet—would have kept them all well and strong.

PART III.

CONCLUSIONS: MY PHILOSOPHY

CHAPTER 34.

I ARRIVE AT AN IMPORTANT MILESTONE

On the day that I marked up my 70th anniversary, October 21, 1937, I wrote a letter to my son, George, Jr., and his wife, Margaret, in which I said that this supposed end to my days, by the Psalmist's measure, was to me only the end of the first relay in life's race. I was beginning the second relay with enthusiasm and high hopes. I had received my second wind.

The letter said, in part:

"I have this day reached my allotted three-score and ten years. It must have been a mind of small receptivity that pronounced this allotment . . . Had that mind been big enough to teach mankind the positive, the constructive side of life, it would have been just as easy to have made the allotment at least double the 70 years . . . For myself, at the age of 70, the second relay being with as much enthusiasm as I felt at any time during the past three-score and 10 years . . . To me, this relay race is comparable with the 'righteous path' which brightens as the shadows lengthen toward the east. There was no part of the first relay, not even the best of it, which yielded rewards comparable with those life has bestowed upon me at the end. And now, the second relay opens with prospects more bright and enticing than the first relay held forth. The past has furnished experience which natures wisdom. It has given me spiritual insight—a lamp unto my feet which shall guide me unerringly into and along that "righteous path."

On my 70th birthday also I jotted down the observation that the Old Testament had taught a long and happy life is the reward of right living under a just system of economics.

Concerning that new order of things the prophet Isaiah wrote in his 65th chapter: "They shall build houses and inhabit them, and they shall plant vineyards and eat the fruit of them. They shall not build and another inhabit; they shall not plant and another eat, for as the days of the tree are the days of my people, and mine elect shall long enjoy the work of their hands. They shall not labor in vain nor bring forth for trouble . . ."

That prophecy, when persuaded, was spoken not for some millennium to come. Rather, it seems to me, Isaiah was a state of things attainable on this earth, when men shall, learn to do justly by one another. Jesus of Nazareth interpreted Isaiah's vision on like practical terms. He taught men to pray: "Thy kingdom come, thy will be done on earth . . ."

The Nazarene, to my way of thinking, came to earth as the emissary, the advance agent of the Creator. Jesus told his followers : "I and the Father are one." But he taught that all men could, through right doing and prayer achieve that same oneness with God:

"What I have done and yet greater things ye shall do," Jesus told his disciples.

I believe that the Master's healing powers are attainable by one who lives and works in harmony with universal law. By so living, even as Isaiah's prophecy impiles, man could still be young at 100 years of age.

People sicken, grow old before their time and die young because as they show by their actions, they do not believe that the Bible teaches: "Man was not made to be sick. To keep his health and live long, he has but to learn and obey God's law."

CHAPTER 35

ON A LETTER FROM A VALUED FRIEND

Among the most prized letters in my possession is one I received some time ago from the former pastor of my church here in Hereford, the Reverend T. C. Willett of Seymour. The reverend had a good word for my blunt habit of speaking my mind on whatever subject, wherever I happened to be. I share the minister's regret that he and I, who have so much in common, did not find, or make, occasion to get together more often during his stay in Hereford.

"Dear Doctor:

Many times I think of you and would like to have a visit with you. Most of my visits I have with people, when they have gone leave the feeling with me which makes me think I have been talking to myself. But when I contacted you, the sense changed. You always had an opinion and were not afraid to express it. I feel like I missed a lot by not contacting you oftener while I was your pastor. Your friend, T. C. Willett."

I think Brother Willet has in mind a prayer meeting incident which I vividly recall. Our pastor always had a live theme for our mid-week meetings. Whatever the topic, Brother Willett would lead the gathering into a lively discussion concerning it. For the evening question, the subject was Satan. Brother Willett polled the 40 persons present, pointing his finger at each one in turn and asking: "Do YOU believe in a personal Devil?" Each person quizzed had answered, "Yes."

When Brother Willett came to me, pointing his finger straight into my face and asked, "Do you believe in a personal devil?" I answered with an emphatic, "No." Brother Willett, evidently dumbfounded, just stood there, looked me straight in the eye and said nothing. The whole room was so quiet you could have heard a pin drop. After a minute of tense silence, I explained: "I believe God is good and has all power and created all things. I say God could not be good and at the same time create the Devil to torment people. Besides, the Devil would have no power unless God gave it to him."

At that, Brother Willett laughed heartily, and remarked: "I agree with you that God has all power; but I believe there is a devil, too."

After receiving his fine letter, the thought occurred to me that during the 35-odd years I had lived in Hereford, Brother Willett was the only pastor among the many who served our church with whom I felt free to speak frankly and without reserve whatever thought would come into my head.

On another occasion I recall, we were talking of individual salvation, and a Brother of another church demanded: "What is gained when you save a man's soul and then turn him loose to live in a hog pen?" This Brother was referring to the confused, chaotic state of the world. It was almost 2,000 years since Jesus came to teach men the way of salvation. That way was set forth plainly for all men to learn and heed in "The Sermon on the Mount." What has it profited men?

"Wars and rumors of wars are yet lowering over the Peloponesus."

CHAPTER 36

SOME THOUGHTS ON THE WAY OF LIFE

In my eighties I give thought to the way of life. What is this way of life and why did I wait until this age to take up a subject 'which logically belongs to youth? My conclusion is that the way of life is a path which grows brighter as you travel it, a path in which your body, in perfect health, glorifies its Maker. Whose business is it to teach all people the way of life. I am speaking of THE WAY, the only right way, where there is no sickness, want or sorrow.

Why is it not the business of the church to teach the way of life? Did not Jesus say: "I am come that they might have life, and that they might have it more abundantly now while we live." He taught the way of life and living, when this is obeyed there is no sorrow.

During all my youth nobody ever said anything to me about seeking the life that guarantees perfect health, the abundant life with plenty to spare that would last through the years when a man is supposed to be old, feeble and gray. My parents, themselves untaught, could not teach me except to do right and then do more for good measure. In all the 75 years I have attended church it has never taught me.

The Bible teaches plainly for who can read that the good life is attainable here on earth. The Bible gives instructions in physical, mental and spiritual ways, which followed, would guide a person to health, happiness and long life without one day of illness. The Psalmist says that the path of the righteous grows brighter unto the perfect day. Then in Isaiah's 65th chapter, the Lord speaks through the prophet: "For as the days of a tree are the days of my people, and mine elect shall long enjoy the work of their hands."

Had I been taught those truths in early youth, had I been told how to apply the Psalmist's and Isaiah's doctrines to the business of every day living, I do believe I would be further advanced toward the promised "perfect day" when there is no illness nor remorse. Not only that, had the church in my youth taught all its communicants this Biblical doctrine concerning the perfect life and how to attain it here and now then I might have spent my life in communion with congenial spirits. As it happened, mine has been a lone quest.

As I see it, the pilgrim has attained his perfect day when he has gained health of body, mind and soul, when he possesses an abundance of life's good things and dwell in harmony with his environment.

So far as my contact with it has gone, the church has never set such a goal for its members. Rather the church has adjured poverty in the here and now, to fit oneself for the more abundant life hereafter but as the tree falleth so it lieth.

As I read it, such is not the implication of the Sermon on the Mount, which holds the sum and substance of Jesus' message: "Lay not up for yourselves treasure upon earth."

That tenet, if obeyed, would eliminate the love of money, which Paul taught was the root of all evil. Eliminate evil and you eliminate the causes of sickness, sorrow and death. In all my 75 years of church going I have never heard this doctrine expounded from the pulpit. But I read Amos' prophecy and find the identical teaching: "See good and not evil, that he may live" . . . and never ill and in want.

My own profession, dentistry, and medicine also, it seems to me, fail in the same way. Neither can see the underlying causes of human ills for the symptoms. Consequently, the three leading professions dedicated to the service of mankind, the clergy, dentistry and medicine, do not teach or practice the way of life. That teaching is all in the Bible, but our preachers do not master it. Seemingly they are content to quote stray passages of scripture taken out of its content to support their own ideas of what is true, honest, just, pure, lovely or of good report.

As it seems to me, both dentistry and medicine are rather disposed to disown any member of their respective professions who would dare teach the true way of life, which would prevent most of the disease, poverty and misery which afflict mankind today.

The churches teach that the Devil is responsible for all the wrongs abroad in the world today—but I say that man himself is responsible for those evils. He has wandered far from the good way that the law and the prophets and the Nazarene laid out for him. Today he is lost in a bog, confused and bewildered, groping for a path back to the King's highway.

That has come to pass, I believe, because men, instead of thinking upon things of good report, as Paul advised in his letter to the Phillippians, have thought upon disease, loss, poverty, depression and war. Fearing those evils, man has brought them upon himself. Disease is man-made. Poverty is man-made. Depressions and wars are man-made.

As I have said before, and I repeat, the 20-odd years since my 60th birthday have been the best years of my life. It was not until I began fasting or perhaps eating lightly of fruits or vegetables or juices, to correct bodily conditions which had threatened my life that ideas and visions of that good way of life came flooding my being. Thus for the first time I had achieved spiritual heights to get some inkling of the meaning of life, to taste the satisfactions which the good way might hold for me. I have since striven to continue in that way. Dreamlike thoughts and visions pour in on me and open up vistas never glimpsed during my younger years.

It follows that the widely held notion that at 60 a man is too old to work at his job, full of pains and inefficient, and ought to retire, is far removed from my experience. Had I continued to feed my appetite, as I had done in youth and middle life, then I would have been ready to go on the shelf at 60.

What happens to a man after 60. I have concluded, depends on the man himself. He must decide what master he will serve, whether he will yield to his physical appetites that will drag him down or will resolutely choose and pursue the good way of life, that promises him good health, efficiency and durable satisfactions long past his three score years and ten.

CHAPTER 37.

SIGNALS ON LIFE'S HIGHWAY

As a foresighted motorist, the reader would not think of starting out on a cross-country tour without a supply of up-to-date road maps. Life is a journey too, but we pass over the route only once. For that reason it is much more important that we study life's maps, chart the way we mean to follow and learn what we can concerning what is to be expected along the road. The better we know ourselves, the better we understand the rules of the road (which are nature's laws), the more we shall reap from the journey in health and happiness and in beauty seen by the way.

On this life journey, we have to obey two sets of traffic rules, natural law and man-made law. For every moment of our lives we are subject to that dual authority. The rewards which we earn and the penalties which we incur depend upon how well we learn and keep the law.

The reader knows well enough which is the more important. He can sometimes break a man-made law, exceed the speed limit or cut a corner and get away with it. By contrast, experience has taught him that nature never overlooks a mistake. There are no suspended sentences, paroles and pardons in nature's court. Man-made customs, conventions and standards of value are constantly changing. Each generation sets up its own. If we wish to be happy on the west side of this rise (in life's journey), we must not stake our all on man-made values. These will one day become out of date and be discarded. New standards will be substituted to fit the new time. Not so with natural law, God's law, that is changeless and eternal. It is therefore important that the traveler on Life's Road learn Nature's Laws and learn that he must obey those laws if he is to find the going smooth.

Particularly when the young man starts out from the parental home to make his own way, he needs a map to guide him. It is essential first of all that he know himself; but he should also know the natural and man-made laws with which he has to deal. It will help to inform him that the roadside is well strewn with signs and signals for who can read. No lesson that a young man can learn is more important than learning to look for, recognize and read aright the signals on life's highway.

As a practicing dentist, after I had once learned how food makes the man, I could look at signs in my patient's mouth and tell him the type of food he lived upon, whether he had a "sweet tooth" and ate heavily of white bread, syrup, cakes and pies, or that he had a strong appetite for beef, gravy and pork chops, or, again if he consumed enough salads and drank enough pure raw milk.

Common sense teaches me that those signs are not confined to the mouth. If a person's diet is not properly balanced, or if he has sinned against his body by too much or too little exercise, too little sleep or excesses of any kind, there will be warning signs that nature has put out. It may be a pimple, a fever sore, a stiff joint, a pain in the chest, a cough or shortness of breath. Whatever the sign, it is important that the person, or his family physician or other trained observer, read it, interpret it and see that the ill to which it points is corrected. There is an old saying: "Be sure your sins will find you out."

That principle applies forcefully to sins against the body. Eat the wrong foods, eat too much, overwork or mistreat the body in any way and there will be warning signs. Happy the man who heeds them! Above all others, the mother should be well drilled in reading those bodily signs and signals and should know what to do whenever the symptoms appear. Suppose the law let a man set himself up in an office to practice dentistry, to repair decayed teeth, pull teeth and make new sets without training for the job. Well, when she undertakes to rear a child, the mother starts on a more complicated job than running a dental office.

Along our principal highways, enterprising State engineers have installed ingenious signs which instantly warn the driver of a curve to the right or left, a winding stretch, a crossing, a dip or other bad spots ahead. Now, a kind nature provides even more warning signs, even flashing lights that cannot be missed, along life's highway. To disregard those signs is to invite trouble, even to risk fatal disease. Nature's signals tell us what we ourselves are creating. For most diseases, like most highway wrecks, are man-made. Quicker than most sins against one's body, wrong eating habits exact their penalties. Eating the right food in the right quantity, but in sufficient variety to give zest to the appetite, is mightily important because food keeps the body in repair, keeps the life processes going.

Take a gentle white rat, a cat or any pet and feed it on the sort of diet that many parents feed their children, too heavy on white bread and sweets, too light on raw vegetables and milk, and the pet will soon become nervous and vicious. That is why I say that the way to prevent, or cure, juvenile delinquency is to see that all the children, including the under-privileged, get the food which they require for healthy bodies. Build sound bodies and you build steady nerves, clear brains and good morals.

There are persons who have learned somehow in their youth to read and heed the signs and signals along life's road. As a result, each has lived long without aches and pains. Each has gained added wisdom with experience and so has found the world growing more beautiful and life more enjoyable as the years pass by.

When I try to tell people about diet or the care of their bodies otherwise, some protest: "If I can't enjoy the things I like I had as well die." Now, I'd like to send the person who gives me an answer like that to consult one of those sages who has found the secret of the good and happy life. Then he might realize how a perverted taste has betrayed him with a counterfeit happiness. It is easy to cultivate an appetite for natural foods and to cultivate health habits which not only build sound bodies but nourish right thinking and the moral nature.

CHAPTER 38.

BORN AGAIN I EXPERIENCE A NEW LIFE

Only recently a group of my fellow townsmen, on a Hereford street corner, were talking about my seemingly inexhaustible fund of health and vitality. One old friend of mine recalled that he had seen me when I was so weak that had I ventured just one more step it would have been my last. That incident in May, 1925, marked a turning point in my life. It was on that May morning I began to experience a rebirth.

Then, in my 57th year, having seen a great light that revealed to me the double sources of my almost fatal sickness, bad eating and bad thinking, I began the upward climb which, except for a few stumbles, I have maintained since. Day by day I can think of myself as getting better and better. I am continually getting new ideas as to ways of living—ideas that seem to pop up in my head out of nowhere—and nothing will satisfy me but to put those ideas down on paper and, so far as practicable, try them out in my daily life.

It appears to me, therefore, that I have robust health in my 80s, when I'm due to be old and feeble because I have continually revised my way of living. My secret, I'd say, is to eat natural, unrefined, life-giving foods and, the while, to think life-giving thoughts. I know well enough that my bodily machine, given the right materials to work within, can keep itself in repair.

One day I ran across a carpenter at work and gave him a puzzle to solve:

"What is the difference between a man and a building?"

When he gave up, without even venturing a guess at the answer, I explained that a building cannot repair itself. It has no life and no power to think. Man, a living organism, as a general rule, can effect his own repairs. If he believes in himself and obeys Nature's laws, he will have but infrequent occasion to call in the repair man (doctor). Nature will do the job for him.

The trouble is too many people are set in their ways. By force of habit, they go through the same old round day after day. They get up at the same hour, ask for and get the same old breakfast, do the same routine work. Whatever they eat is cooked up in the same way, as on the day before. When lunch time and supper time come the process is repeated. Consequently, there is too much sameness in the diet.

When it is subjected to, I should say punished by, that sort of routine, the body does not get all the elements which it needs for essential repairs and does not get the elements in the right proportion. Maybe the body comes up short of protein, calcium or phosphorus; but it is more apt to be found short on iron, magnesium, boron, iodine or some other 'trace element.' It is probably short also on the vitamins that keep life processes running smoothly because most persons subsist largely on white bread, potatoes, cakes, pies and meat. The typical diet is too heavy in sugar, starch, fats and oils.

It is no wonder, under those circumstances that the bodily machinery gets out of kilter and the person is plagued with aches and pains. More often than otherwise when he goes to the doctor that person gets medicine to soothe his pain but nothing more. He is not told that he must revise the family eating and other living habits which made him sick in the first place. For that reason, I say that, to do the job which they are supposed to do, both medicine and dentistry must get a new viewpoint. They must center their attention on finding and removing the causes of sickness or tooth decay, and not on relieving symptoms or repairing damage.

If people must be slaves to habit—whether in eating, working for a living or amusing themselves, it seems to me, they at least might take pains to see that those habits are constructive, not destructive. They should learn enough about diet; that is, about what elements the body and what foodstuffs will supply those elements, to pick out a well-balanced, health-giving menu and then make that habitual. Next, they should vary the day's work with healthful recreation. To sum up, people ought to cultivate health-building, not tearing-down habits.

Why should a man be a slave to routine at all. Why should he not begin each new day highly resolved to be master of his little world, not a slave wearing a ball and chain. I think I know the reason why: Routine requires no effort of the mind. One can just drift through the day, do what is required half automatically and get by with it. By contrast, thinking is hard work. Some philosopher truthfully has said that "Nothing is so disturbing as a new thought." Yet, to me, nothing is more thrilling and rejuvenating than a new idea. Since I had my rebirth visions of new ways of life are coming to me continually. A flood of thoughts will pour upon me as I lie awake by night until I feel compelled to get up, turn on my lights and write down what has come to me. Even so during my years of health and constantly renewed life, I have contrived to keep certain key thoughts always before me. In particular, these verses from the Gospel have been my mainstay and guide:

What things so ever ye desire, in my name, believed that ye receive them and ye shall have them.

What things so ever ye desire, when ye pray, believe that ye receive them, and ye shall have them.

If ye abide in me and my words abide in you, ye shall ask what ye will, and it shall be done unto you.

In my life, I have found those sayings as true as the north star, so far as I have proved myself true to them. That is why I can say to the person who is sick, ailing or discouraged. You have the power within yourself to gain back your health, strength and hope. The power is yours to command. You have only to use it.

Then, I say, "Choose you whom you will serve." Take the high road of life. Resolve from this day forward to live above sickness and sin. For whatever your trouble may be, it is, when you come down to it, of your own making.

So must you cast off your disease-building habits, particularly habits of thought which are more potent than you perhaps realize. Seek the reason why you are sick, weak and sore-trouble. When you have found the cause of your ills, the remedy will suggest itself. After dragging your trouble out into the open and taken a look at it objectively you have won more than half the battle. The reason why so many people are continually sick, or enjoying poor health (as they actually seem to do), is they do not have the least idea why they are sick. The habitual drinker does not know why he craves alcohol, nor does the rheumatic know why he suffers those twinges and pains. If they were born again in the sense that Jesus taught, both could see what was wrong—and once having seen would be started on the road to mastery over their infirmities. That is to say, those ailing persons would get a right attitude toward life. When you are born again you become as teachable as a child. When Jesus expounded that truth to his listeners they were puzzled.

"Except a man be born again, he cannot see the kingdom of God."

"How can a man be born when he is old?" asked Nicodemus, ruler of the Jews. Then Jesus answered him:

"Except a man be born of water and the spirit, he cannot enter into the kingdom of God."

"How can these things be?" answered the still skeptical Nicodemus, but he showed later that he could grasp the idea. He became Jesus' advocate before the chief priests.

In my 80s, I am vigorous and alert by virtue of having been born again. I can seek the truth with an open mind. I can learn sane living habits by practicing them. Any person who tries can do the same, but first he must get out of his rut. He must be born again.

To be born again is to see ones troubles and discard them by living a life in harmony with natural law. Since man appeared upon the earth, barring natural resources whatever has appeared man, we the people, created it. All our wars, debts, worn out soil, diseases and what have you we create them.

To be born again simply means to reverse every line of thinking and habit—discard every disease creating food—disease can appear only through the food that is consumed. When the food is correct, health will be correct. Disease never needs treatment—remove the cause the disease disappears. We must be born again before we can reverse our vicious living habits.

The Kingdom of God is any place where natural law is obeyed.
To be born again is to see the truth and obey it—live it, then disease
cannot appear.

CHAPTER 39.

PILGRIMAGE TO THE FIFTH KINGDOM

If there were such a thing as a study club or other group devoted to research concerning the "Fifth Kingdom," the spiritual side of man's nature, I would like to belong to that group. The research I have in mind would inquire into that part of man which contacts, though unawares, the ultimate source of truth. Here I am speaking of the truth which would make men free, and, as Jesus of Nazareth also pledged, become a well spring of the more abundant life.

Most study clubs and like societies now-a-days, devote their thought and effort mainly to what has already happened. This club I have in mind would concentrate on building future history. The study of the past is limited to dogma and precedent. Men's minds ought to be free to pursue their unrealized possibilities. If it be true that man is made in God's image, then those possibilities may be called limitless. To be sure, the old school theologians put man in the fourth kingdom, above the mineral, vegetable and animal kingdom. But there is a Fifth Kingdom, concerning which the Hebrew prophets and the Nazarene have given us intimations but which only the saints and the mystics have attained to.

Suppose that all men could enter into that Kingdom, there to make their homes and find there a congenial way of life. That transformation would imply a revolution such as the world has not yet seen. However, practical minded men have the idea that such a kingdom would be "out of this world," and therefore impractical. I do not believe that at all. It is my conviction that once men had entered the Kingdom and had their eyes opened to its larger truth they would be at home there.

This Fifth Kingdom, as I have said, is the realm of the spirit. When a man has entered there, he has become aware of his likeness to, his oneness with, the Creator. He has gained a new vision of life and acquired some inkling of latent and heretofore unsuspected powers within himself, powers which he can develop as he will. Having come into that awareness, the citizen of the Fifth Kingdom can draw upon the Universal Mind for sustenance and light. I realize well enough that to the man in the street what I am writing does not make sense; but all who have entered the Fifth Kingdom know that there is indeed such a Higher Source of strength. They have tapped that source to lighten their burdens and heal their diseases. They have climbed out of life's dark valleys onto the mountainside and into the better sunlight.

"If ye abide in me, and my words abide in you," saith the Lord, (as quoted in John XV, 7) "ye shall ask what he will and it shall be done unto you.

Thus reciprocity works in the Fifth Kingdom.

Would it not be a fine thing were great numbers of men and women to resolve to journey together into that Fifth Kingdom. True, each would have to go by himself, in one sense, this being an inner pilgrimage. For, as Jesus said, the Kingdom of God is within you. Yet seeking a common objective, all could journey together, in study club or group, under a common leader. The kingdom must be in me before I manifest it materially, so must the spirit of a fine garden be in me before I can create it materially.

Let people enough go on that pilgrimage into the Fifth Kingdom, and our social order and political economy, both would be made over completely. Thus might be laid the solid foundations on which to build a just and durable peace among all nations. This peace is not in us, therefore, war will continue. The reason we have wars is because it is within us.

It was Jesus' mission, as he avowed again and again but most forcefully in the Sermon on the Mount, to lead men into the Kingdom of God.

That goal was to be attained first in men's thought and feeling. For as Jesus taught, the Kingdom of God is within yet. Let a sufficient number of people achieve awareness of the Kingdom within themselves and the new social order which it implies will come about naturally as the day comes with the rising sun. It was that end Jesus taught men to pray:

"Thy Kingdom come; thy will be done on earth as it is in heaven."

Let that prayer be answered fully and the people will have their solution to the problems which vex them today. When they have entered the Fifth Kingdom, men will have found salvation from ignorance, poverty and misery—and, salvation from war.

John says in Revelations XXI:

"Behold, the tabernacle of God is with men, and he will dwell with them and they shall be his people . . . and God shall wipe away all tears from their eyes . . ."

There again, it seems to me, is described the Fifth Kingdom which was Jesus' goal for the here and now. We have fallen short of that goal because our religious teaching has been abstract and theoretical only. That has got us nowhere. I would like to belong to a movement which would profess, and teach by practice, not by percept alone, the tenet, "See ye first the kingdom of God and his righteousness . . ." That would be to seek the kingdom in which men dwell with God and He in them. That is no war, no poverty and no disease.

What this troubled and bewildered world needs, I say, is a movement which would teach people day by day how to live, how to be well and happy; teach them the folly and uselessness of sickness; the folly and uselessness of unemployment and depression in an age when the maximum productive capacity of every man is needed to feed the hungry peoples of earth and provide them with creature comforts. Such a movement should tell the people why during the 150 years they have increased their travel speed from 4 miles to 400 miles per hour, they have not progressed at all in the essential art of living together in their world.

It would be a joy to belong to an order which would teach those things which the world is hungry for—simply by practicing them. It is time men learned that their chief end and aim is not profit or dividends. They must set a higher goal, the spiritual man.

If humanity needs anything, if it is not beyond vasing quite, it needs a movement which will teach all men the way to the Fifth Kingdom. That will not be easy, seeing that the masses of men are plagued with lazy minds, content with being entertained merely. The people want to ride, go to the picture show, listen to the radio or read the comic strip, anything to escape from reality.

I say that what men need above all else is contact with reality. It is our business and our duty to seek the truth, learn that truth and apply it to solving today's problems, to seek and to open up new and broader avenues of life which will lead us to the Fifth Kingdom.

TRUTH—DECAY OF CIVILIZATION

There are many queer things in this world. In all our great cities there are many fine churches. Millions of church goers to listen to discussions of the writings of these scriptures. While at the same time the statement of well known writers that scriptures as evidence to prove any thing have long since been outmoded—was a thunderbolt to me.

When I think of the time and money which is spent in the church world teaching and discussing that which has no value seems unbelievable to me, yet when I sit in the calmness of the late hours of the night thinking, I am convinced that what this writer told me is correct. Yet in my own mind I am convinced that no greater truth have been taught than what I have found in what is known as Bible Scriptures, but what church goers teaches or says these Bible teachings have no value, and when church interpretation is used, its value is destroyed—nothing is proved.

Jesus was crucified because he told the truth. Other Bible teachers were put to death because they told the truth. At no time in the history of man has anyone taught this truth and escaped unharmed; that is no one of any note. As I stand on the side line watching the manipulations of the powers that be will not play hands off when these Bible teachings are attempted to be placed in operation.

These teachings of the scriptures apply to our daily life, politically, economically, spiritually, physically, mentally and otherwise. Jesus, Amos and numbers of others who taught the truth of the Bible teaching were executed. These Scriptures teach that what we have we must work for it. And that no one shall plant and another eat. And that no one shall pay rent. People will live on their own vineyards and eat the fruit thereof. They shall not build and another inhabit. The days of my people shall be as the days of trees. Even at the age of one hundred they will yet be in their childhood, manhood will last as long as trees.

These teachers, we study in our Bible taught these above mentioned Scriptures—Not limited to economics, but whatever our people the race of man, may desire, he shall have. There is no limit to the desires of man, when the law governing is obeyed he shall have what he wants.

This noted writer who told me that the Scriptures to prove anything had long since been outmoded. This is true, only because the Scripture has been misinterpreted but in order that it may not interfere with out political and economic set up—the profiteering world in other words, high finance.

Our Bible teaches there is no limit to the possibilities of man, when the law governing is obeyed. These laws of mathematics are of no value when the law we say 2 times 2 is five. Mathematics are no more value than Christian economics when not obeyed, the reason the Christian economics—the economics of Jesus are of no value is because they have never been applied. Sure they are outmoded. For this reason Jesus Golden Rule is of no value. It is like 100.00 dollars—no value when not used.

Our Christian world and the golden rule of Jesus and all the laws and teachings of our Bible are of no value, because they are not used. Naturally, noted writers tell me that my Scriptural quotations are of no value because they have long since been outmoded as evidence to prove anything. This is equivalent to saying that our churches and their practices and teachings have not any value because they prove nothing. Because our members do not practice these teachings. These teachings of Jesus are to be compared to money stored in a vault—of no value because not in use.

We may compare our health laws to religious laws or the money of a miser, of no value because not used. When the laws of health are practiced or obeyed there can be no disease. The diseases which attack us have no power when the laws of health are obeyed. The weeds and grass cannot destroy our crops when the soil is properly cared for. Neither will insects attack, when the soil is not impoverished. Neither will disease attack when our body is well fed and not mistreated.

The trouble is our people, graduates of our best institutions, are not informed along the ways of life and living. Our diseases and our wars are due to perverted and abused laws which are supposed to prevent disharmony and would if obeyed. Our nations citizenship accept disease and war because of the absence of knowledge or information. We have athletes foot or cancer or ad infinitum because we have disobeyed the law governing health or prevention of diseases. Humanity has not yet learned that all power was given us to rule and to have dominion.

Through my experience as a dentist studying the human mouth, why teeth decay, why teeth get loose and fall out without any extraction has led me into the cause of disease which destroy life. Whatever may be the disease, we create it. It has no power within itself. Nearly every thing along this line which we have been taught during our past is incorrect and a failure.

When the natural laws of life and living are complied with, there will be no more disease. During my life at the dental chair with my observations of nearly half a century of why teeth decay and incidentally why any disease, has left no doubt in my mind that it is due to the food we eat. Whether it be decay or the absence of decay—the power behind the throne is the food we eat.

This discovery was based on milk from cows fed on natures food unchanged from its natural state. During that time of my observations if the milk which was used had been pasteurized, Hereford would never have carried the slogan "The Town Without a Toothache." Because of the fact that pasteurizing destroys and disorganizes enough of the food value of milk to create weak and diseased bodies.

Absolutely Hereford is a town without a bad tooth for every child who used plenty of milk unpasteurized, not only does this apply to Hereford but to all areas where the food has not been impoverished—not to milk only but to other foods.

Some of our best medical authorities have formed the conclusion that the reduction of our infectious diseases is due to the increase in the consumption of fresh fruits and vegetables which aid in the destruction of disease promoting bacteria. This is further evidence of my contention that the well person is not subject to disease. I am fully in harmony with Dr. Royal Lee when he says that pasteurized milk is dear at any price.

The purpose of organic gardening is to restore to the garden soil, the elements which have been destroyed. The plant life has the power to extract the elements from the earth of which our body is made, when the elements are furnished our body it cannot develop what we call disease. Disease is only a deficiency of these elements. These diseases are only God's warnings telling us we have failed to keep our body supplied with these values.

These values cannot keep our bodies supplied when they are not in our food. Neither can these values prevent disease when they have been refined or changed or heated. When we are supplied with all these values we are immune to disease. We have failed to be a follower of God. When we failed to keep our bodies immune. We cannot maintain this immunity when we supply our body with orthodox conventional food when we keep this up we are atheists and do not know it.

Naturally our diseases are incurable when we continue eating foods which are refined or changed from their nature. Disease cannot continue when immunizing foods are fed the body.

It should be the purpose of garden clubs to see to it that our soils are not worn out and that when flowers and foods are grown no disease will develop—neither in the plant nor in the person who eats the plant.

During my later years the greater part has been spent studying reading and writing along the line of human behavior. What I have observed and written mainly, has been on the behavior of Americans. There has been a craving or desire, at least, to spend enough time in other countries, in order that a comparison could be drawn.

It appears from standing on the sideline watching the wheels go round that America could not have made a greater failure, even, if this had been their major object. This country is comparatively young, yet our soil has been exhausted. What life is left in our soil very little of it reaches our dinner tables. The report is the best of our young manhood 50% or near that, more or less, has been rejected as unfit for war duty. The last report printed gave our people as 99% defective.

The exhausting of our soil and the refining and heating of our food till it is too impoverished to maintain a fighting people for war duty. Our fighting must be done without soldiers, unless there is a change in the feed. The entire setup is governed by high finance which points to war as a racket and the decay of civilization.

This kind of a nation is supported by our so-called followers of Jesus who said when we are slapped on one cheek, turn the other also.

All through the universe and on through the walks of man there are laws to reckon with. The season of each year—winter, spring, summer and fall have their laws which we must obey. The laws of gravitation and the flying of a plane must be reckoned with. And on down through the life of man the laws which we have to contend with are flexible but must be obeyed.

When we obey these laws there is harmony. The three score and ten years which were allotted for man centuries ago from my experience it is not the limit of life when the laws are obeyed. When these laws are obeyed life grows more beautiful with the passing of the years. Aches, ills, rheumatism, when these laws are obeyed, there is no disturbance.

We are taught, and truthfully, that what we sow we shall reap, but it appears we have never registered this law in our minds. We do not yet know that our aches and ills, polio, cancer, heart failure and bad colds are of our own creation—the reaping of our sowing. Common reason teaches that whatever is someone or power creates it. Rheumatism cannot develop when the blood stream is clean. When the food is correct the blood stream will always be clean. It takes a clean healthy blood stream to maintain a happy disposition.

Our minds and morals are fed the same as our teeth or kidney. When the brain and nerves are not well fed, delinquency can not be controlled.

Neither can what we term disease be prevented when the food is deficient. Neither can the food be good when, the soil is impoverished. People who lie in hospitals, worn and emaciated, if the food had been correct they never would have been carried to the hospital. If the food served in the hospital is correct the patient will get well and go home.

I am not talking at random, these reports have been experienced and lived in my own body. When for years I grew weaker till everybody expected everyday to hear of my passing. It happened that a sick person asked me to go with her to Dr. Harry Brown's office. While there I asked Harry to look me over. Within a few minutes he told me I had a bad colon, and that I may be too near dead to clean the colon but if you will change your food and "stay put" you will get well. That was 27 years ago. Now I am 84 and the only way that I can believe I am any older is to look up a calendar. All things are possible with the law when it is obeyed. When (as a rule) a fellow is ill, it is self created. We were placed in this world to "choose whom we will serve."

Natural law is God in action. When humanity lives in harmony with this law it means the end of disturbances—no more ills. Man was made after all other things were made. He was given the power to rule, to have dominion, to choose whom or what he may desire. Whether good will, hate, health, disease or wars—these, any one of them, may be had for the asking or determination to secure them. These have no power within themselves—man must operate them.

What we have been taught, practiced and operated must be eliminated. I say this because the results have not been desirable, when a thing or method does not work—good sense says discard it—whether it be political, economical or food habits. All these have been a failure. Only a dummy will stay put when in the way of traffic.

Our methods, ideas of life and living have proven a farce. The disturbances, aches and ills have disturbed the traffic. We have reached that place in life where it is difficult to secure food which contain the values which promote perfect health. As an example of one item, bread is the main item of food values. We have reached that place where bread is no longer the "staff of life" but the means of creating disease and death, because it is refined.

When our popular white bread is used exclusively, it never fails to produce death before disease can appear. The white man does not use white bread exclusively therefore he lingers with disease. Many of these diseases become incurable, because the food which produce the disease is not discarded.

We have now of late years, been told of whole wheat, but is it? Most of it has been contaminated with chemicals to make it whiter and fluffier and prevent moulding till it would be better food if left on the shelf.

The safest way to maintain health and vitality now a days is to secure a mill of your own or use your friends mill. There is a way to secure wheat which has not been chemicalized, and of late individual small mills can be had. Anyone wanting information will do well to contact Lee Engineering Company, Milwaukee, Wis. I have one of these mills, and also a cheaper mill. One mill grinds fine—the other grinds coarse for cereal where I use every grain I furnish several of my friends.

Every family should possess their own individual mill. Dealers in the community should keep on hand wheat for retail distribution and they will if people who want good food will co-op with the dealer. The dealer, grocery or what, can operate a mill and grind wheat while you wait or buy coffee and sugar which is not fit for food.

There is a way to have what anyone wants. We are admonished to make our choice. Hoping or wishing must be backed by action and determination. We create our worn out soil, we create our denatured and refined foods which results in bad health and disease. We were placed here to rule. If we don't want what we have, we should get rid of it. I discarded my bad health, you can get rid of yours, if you don't know how, there is a way to find out.

This boomerang, "The Town Without a Tooth Ache" makes me sore. This slogan was inaugurated because I found so little caries, but it applies to all diseases. There are no diseases other than what we create. The parents when supplying raw milk to these children they did not know this milk would prevent caries. When arthritis, polio or what have you, develops some one creates it. These disturbances or happy occasions of whatever nature someone is the creator, but the bad food or rather useless food is not all the cause, but it did not prevent. Most of our foods are to be eliminated because they have no immunizing powers. Raw milk is not the only food in the Hereford area which would prevent dental caries or prevent any other disease. The reason I discovered this was Dr. C. A. Pierle, Ph. D. gave me the hunch. Raw milk being the only food used the year round, therefore, I gave my attention to milk—heated milk being particularly dead milk, will not prevent any disease.

All good food is supposed to contain plenty of immunizing values, but our popular foods today have been refined, adulterated and heated till its immunizing powers have been destroyed which opens the gate leading to the cemetery.

GENERAL CAPTION:

On the following pages are photographs of eight representative Hereford citizens who have lived here for most of their lives and, as the accompanying mouth photographs demonstrate, have lived to middle age or older, with perfect sets of teeth.

With but one exception, all the persons in the group have been heavy milk drinkers from their childhood up. Most of them like buttermilk and drink lots of it. All take their milk raw. It is produced on mineral-rich Deaf Smith County grass and feedstuff.

Practically all these persons regularly eat fresh, home-grown vegetables and eat raw vegetables and raw fruit right along. Most of them eat meat either sparingly or moderately. Nearly all live on white bread from milled flour. Thereby they lose the most valuable body-building minerals which, the spectograph analysis shows our home-grown wheat to contain. But to offset that they get the missing minerals in raw milk. All of them eat sparingly of sugar, candy and other sweets.

My theory—which the diet preferences of these people bear out, I believe—is that if people would grow their food in completely fertile soil, like Deaf Smith County has, and would eat that food raw, they would have no dental decay and little sickness. The reason why milk is so effective in preventing tooth decay is that it is taken raw. People prefer cooked food because they have trained themselves to like it, not because food is better cooked. If they set their minds to it, people could learn to like most of their food raw. Then they would live longer and keep their teeth sound into old age.

Hereford, Texas

September, 1951

TO THE PUBLISHER:

We, the undersigned, have given our consent to Dr. George W. Heard, that our photographs and the accompanying photographs of our mouths, be published in his book.

Yours very truly,

(Signed) Mrs. Sallie Morris Carter

(Signed) John Jacobsen

(Signed) Charles Hodges

(Signed) Mrs. Margaret D. Young

(Signed) Lee R. Conklin

(Signed) Louie LeGrand

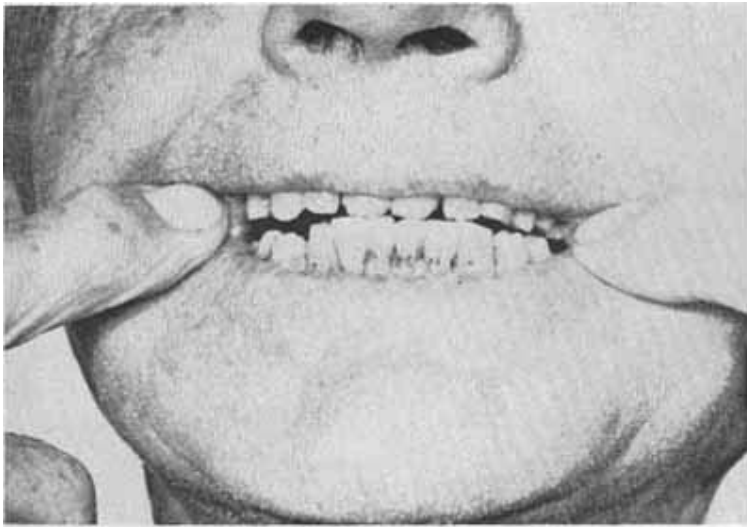
(Signed) Miles Roberson

(Signed) Troys Carmichael



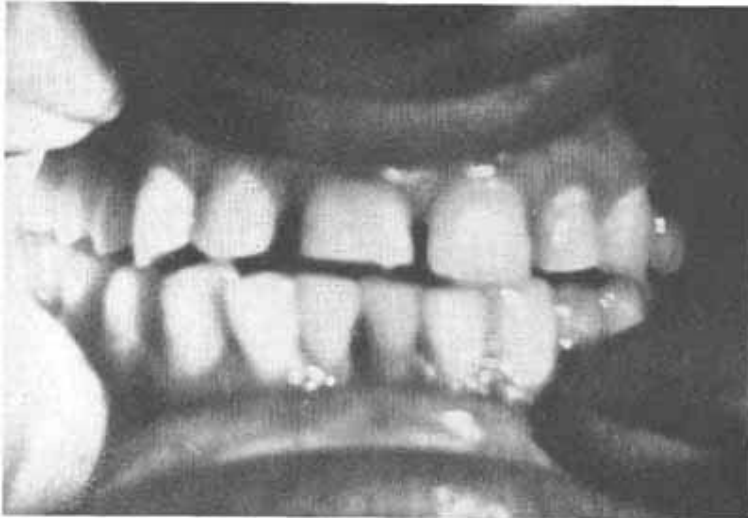
LEE CONKLIN

Mr. Conklin, 54 years old, has lived in Hereford since he was 9. He consumes about the average amount of meat but lives largely on fresh vegetables from the home garden. He likes all kinds of vegetables raw—and all kinds of raw fruit. He drinks more than the average quantity of milk, both raw sweet and buttermilk. He was a heavy milk drinker as a boy. He likes candy but eats it sparingly. He does not use a toothbrush.



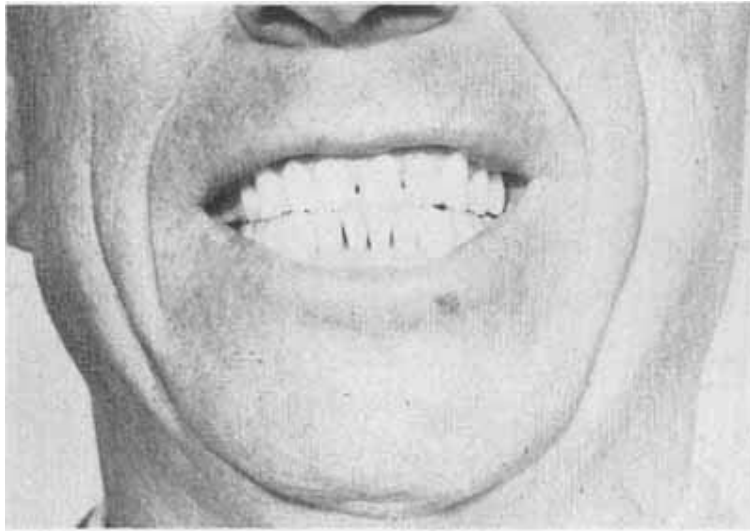
CHARLES HODGES

A native of Texas, Mr. Hodges, 78 years old, has lived in Hereford for 53 years. He has never been on a diet but has eaten meat only moderately. Mostly, he has lived on fresh vegetables out of the home garden and he likes all kinds of vegetables raw. Mr. Hodges drinks sweet milk regularly in large quantities. He likes buttermilk and drank a lot of it when young. He has never used a toothbrush or dentrifice.



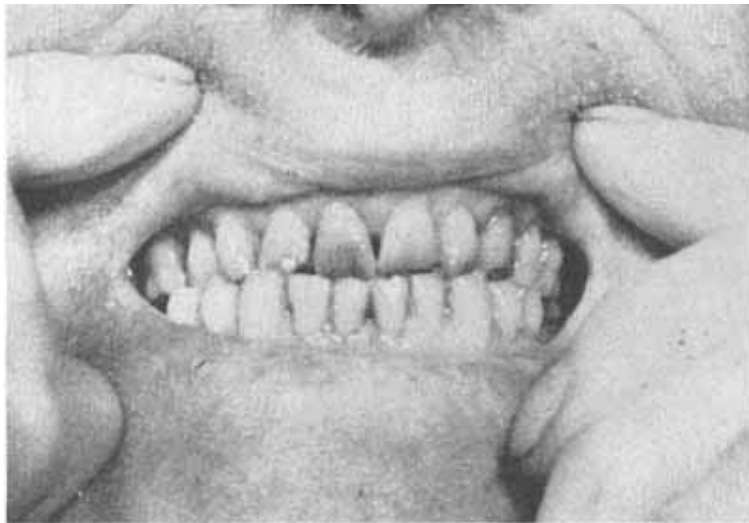
MILES ROBERSON

Born in Cleburne, Mr. Roberson has lived in Hereford for 50 of his 56 years. He has never been on a diet. He has eaten meat moderately; but fresh home-grown vegetables freely, both raw and cooked. He drinks plenty of raw sweet milk and buttermilk, too. He had all the sweet milk he could drink as a child. Mr. Roberson uses a toothbrush once a day but no dentifrice.



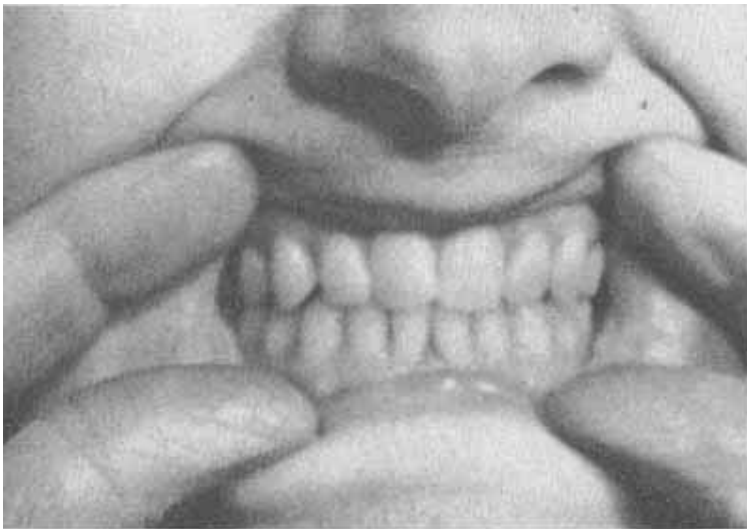
W. TROYS CARMICHAEL

A native of Oklahoma, Mr. Carmichael, 39 years old has lived in Hereford for 26 years. For years, he has eaten heavily of cooked meats, white and corn bread and cooked vegetables. He does not like either raw vegetables or milk. That distaste dates from early boyhood. On the other hand, he has no sweet tooth, either: does not care for candy, syrup, cake or pie. Notwithstanding his reckless diet, by the book, Mr. Carmichael has enjoyed good health; but as a penalty for his excessive meat-eating he stands to lose his fine teeth from pyorrhea.



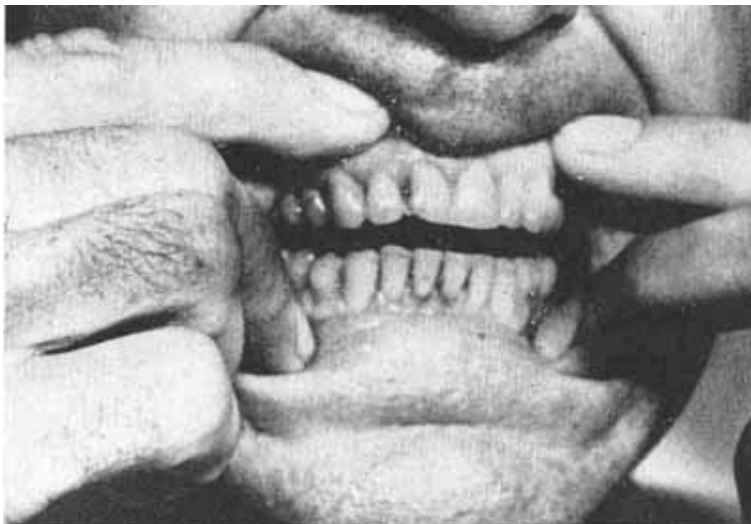
JOHN JACOBSEN

Born in Denmark 79 years ago, Mr. Jacobsen came to Hereford 48 years ago. He eats meat only sparingly, and avoids sweets and refined foods of all kinds. He likes whole wheat bread; eats some cornbread with fresh vegetables out of the garden, and eats some raw salad every day. Mostly he drinks milk with his meals. In early youth and for years, he drank sweet milk abundantly. Mr. Jacobsen had three teeth filled when he was a young man in Denmark.



MARGARET D. YOUNG

Born and reared near Gainesville, Mrs. Young, 40, has lived in Hereford for 23 years. Her well-balanced diet—two small helpings of meat a day, with plenty of vegetables from the home garden, and occasionally raw carrots, celery and tomatoes, with lots of raw milk accounts for her beautiful set of teeth. Mrs. Young likes buttermilk, too. She had plenty of milk to drink as a child. Her husband, a heavy meat-eater who drinks no milk has lost his teeth.



LOUIE LeGRAND

A native Texan, Mr. LeGrand has lived in Hereford for 47 of his 50 years. He has never been on a diet but eats meat only two or three times a week. For the most part, he subsists on fresh vegetables from the home garden and he eats a generous portion in a raw salad every day. He consumes lots of raw fruit. He likes buttermilk and drinks heavily of it at his meals. He eats little sweet stuff. Mr. LeGrand brushes his teeth once a day with a dentrifice.



MRS. SALLIE MORRIS CARTER

Born in Texas 83 years ago—on the same day as the author of this book—Mrs. Carter has lived in Hereford for 39 years. She has enjoyed good health all her life; never had a severe spell of sickness nor paid any attention to her diet. She had plenty of raw sweet milk as a child; but now prefers buttermilk and drinks lots of it. She eats meat sparingly; likes corn bread with fresh vegetables, raw and cooked, out of the home garden. She eats very little sweets. Mrs. Carter never has used a toothbrush.

DR. HEARD'S PHILOSOPHY

The popular foods served today are disease creating.

The diseases which attack us are of our own creation.

Man has the power of choice. Whatever he has, he has chosen.

Any town can be a town without a toothache if the people choose it.

The business of man is to rule and to choose. Whatever is with us we have chosen—"Believe it or not".