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Farming in Texas

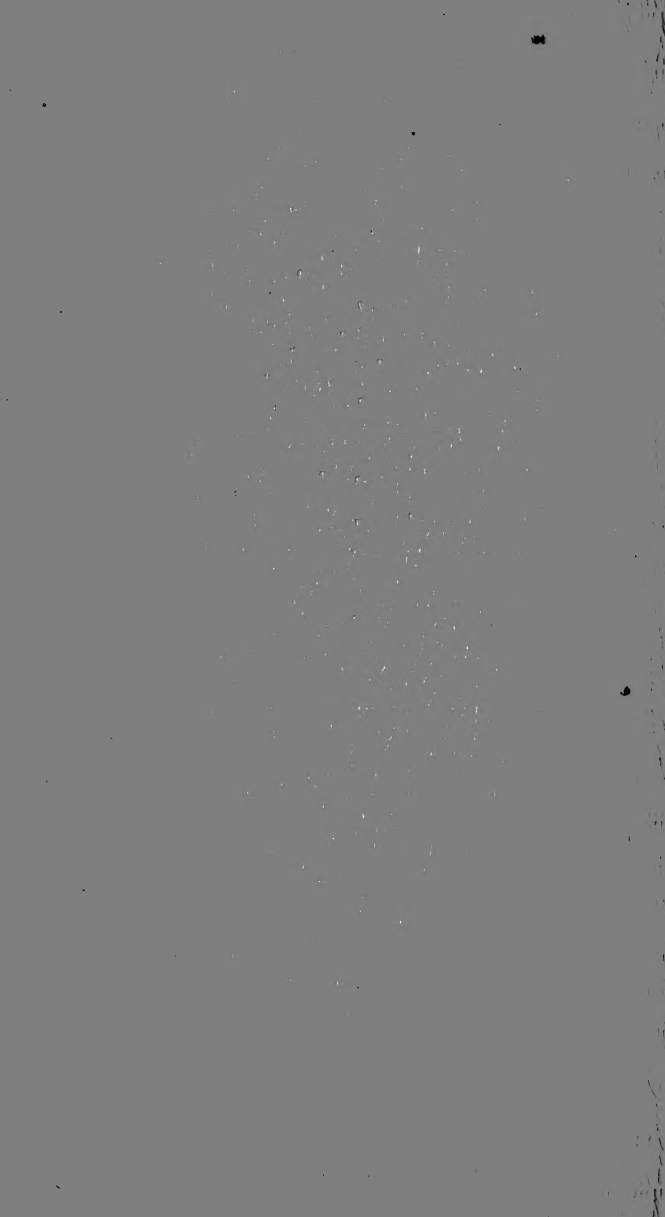
OR

HOW TO FARM THE LANDS OF OUR
SEA SHORE COUNTRIES OF
THE WORLD

A MOST COMPLETE EXPOSITION AND DEFINING
OF SCIENCE AND NATURE TO THE PROS-
PERITY OF ALL AGRICULTURE IN
ALL PARTS OF THE WORLD

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CHAS. N. SIMPSON







Simpson, Charles A
"FARMING IN TEXAS

OR HOW TO FARM THE LANDS OF OUR
SEASHORE COUNTRIES OF
THE WORLD.

(Copyrighted, 1912, by Chas. N. Simpson.)
Reared and Raised and Lived His Entire Life in
Those Lands and Countries in Practical
Farming and Stockraising and
Experimental Experience.

A Most Complete Exposition and Defining of Science
and Nature, to the Advancement of the
Prosperity of All Agriculture in
All Parts of the World.

PREFACE

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With this valuable knowledge, the people of the world can now successfully grow and produce abundant yields of wheat, oats, corn, cotton, and all crops adapted to that particular Northern or Southern temperature; and have, and keep, and successfully raise all kinds of farm animals, horses, mules, cattle, hogs, all kinds of poultry, etc., to the very best quality and highest value of specimens of their kind; thus enabling the people to now establish themselves in self-sustaining and prosperous farm homes in the lands of our Seashore Country, where they can spend one life-long holiday in that often dreamed of most beautiful and popular playground, pleasure and health resort of the world, with its unsurpassed beauty of sunshine and sea; and its unexcelled health-giving, healing and most invigorating and exhilarating liquid tonical atmosphere, for all the exhaustive weaknesses and ailments of the human family; the most finished and complete results of a twenty-two years' study by close investigation, deep thought, open field demonstration and the thorough study of State chemists' analysis of the various soils; and his complete exposition thereon, and tried, proven and true remedies for all diseases of farm animals, all of which have the most solid grounds supported by indisputable and unquestionable evidences of them being facts.

FARMING IN TEXAS

Or How to Farm the Lands of the Seashore Country (that public playground and health resort of the whole world. There is not a man living but what has had in his idle dreams visions of the pleasure resorts of the beautiful seashore), not only of Texas and the United States, but of the whole world, Europe, Asia, Africa and all of the Americas; and successfully purchase, improve and build up a most prosperous, profitable,, happy and self-sustaining, ideal farm home; growing and producing all of the crops useful and necessary to the sustenance and maintenance of life in man and animal, such as wheat, oats, corn, cotton and all crops adapted to the Southern or Northern temperature of the climate of the country, in which the seashore lands of his choice are located.

What Its Contents Will Do.

If in the South, the growing of the cotton crop will now be made a positive certainty, and with our demonstrated and proven knowledge of how to protect this crop from the destructive ravages of its insect pests, including boll weevil, thorough instructions being given in this work. That crop can now be produced to the amount of its entire limit, which on the strong, heavy lands of the seashore may be expected to reach the unexcelled yield of from one to two and three bales of cotton per acre. The extra

amount of labor, machinery and money and traffic by railroad it would require to take care of and handle this crop alone would enrich the country to such an extent that it would be amazing.

An Inventor's Life.

In producing those wonderful results as depicted above, I have pressed the hard seat of the inventor, as all inventors of the great labor saving and much improved scientific inventions of these modern times have done before me, undergoing the ever attendant failures, unavoidable hardships and privations, the inevitable adversities necessarily accompanying all of the inventor's strenuous efforts toward the completion of something that he is fully aware will be the most probable means of great good to his fellow-man and his country.

Author an Inventor; What His Exposition on Science and Nature Will Do.

In pressing the hard seat of the inventor, now for a long, arduous course and term of twenty-two years, I have the high satisfaction of knowing that I have brought to a fully demonstrated and proven success the finish of a scientific knowledge (that no other human on earth in this day has in his possession) that once in possession of the people of the world will be the source of great comfort, pleasure and happiness to innumerable multitudes of people in all parts of the world; and of greatly increased wealth, popularity and power to all nations which have a large percentage of seacoast in their possessions.

This work will go to show what those properties are in this seashore atmosphere that cures the sick, heals the afflicted, calms, strengthens and builds up

the shattered nerves of the overtaxed professional ones—the statesman, college professor, lawyer, doctor, etc.; strengthens, renovates and renews the overworked brain of the business man—almost to distraction and complete breakdown in the busy rush of commerce; and thus save a probable case of self-destruction, or occupancy of one of our many asylums for the insane; also how it builds up and makes renewed strength and power in the sinews and muscle of the brawny arms of the weakened, wasted mechanic and toiling artisan, who became so through hard toil in the hard climate of the interior, with its blazing hot sun of summer and its frigid cold of long, exhaustless winters; and of how it builds up anew his interest in life; that poor, pitiable object of public sympathy—the dyspeptic and sufferer of stomach trouble—that who, unable to eat or enjoy the least luxury of life or pleasure, and to whom this world's beautiful side of nature and creation had lost all power of attraction; how when first unloaded, and as soon as sufficient time would permit of his lungs taking into their depths this delicious, exhilarating ozone and tonical effecting seashore atmosphere, he steps out bouyantly, as if suddenly permeated by some life-giving electric current, and exclaims in accelerated terms and action, "Oh, but this feels good!" and from that instant on, the date of the building up of his vital organs has commenced, until after an almost incredible short lapse of time, he is made whole, and enjoys the good things of life as do other people. O glorious results! And all

from nothing more than living and being in this beautiful seashore atmosphere.

Likewise the sufferer from catarrh, bronchial affections, consumption, and nearly all the ills and ailments that man is heir to in a hard climate, with no health-giving properties in its atmosphere. The result of my invention will show clearly what it is in the seashore atmosphere that causes all of those seemingly miraculous effects; and if there should be an occasional case—as there is sometimes through not knowing of the nature of this wonder working atmosphere—that fails to be benefited as others, my exposition of the subject will so thoroughly explain the nature of every particular that he can with a little assistance on his part reap the benefit as full and complete as the others.

Human Systems.

Human systems differ widely in their make-up, or in other words, the manner of the running of the human machinery therein—nerves, circulation and temperament.

Effects of Sea Breeze.

As the seashore has properties in its climate that are very sedative in their effects on the nerves, thus calming and quieting, it stands to reason that a person of an already quiet and sedate nerve will not be benefited in the same respect that one with a highly excitable and unsteady nerve and high temperāment, would. Hence the need of assisting the nerves with an additional treatment of stimulating remedies. A pure article of rye spirits (whiskey) highly sweetened, when taken, or used in a rich and luscious egg-nogg, three times daily, will answer all purposes

handsomely, and greatly enhance and increase the high rate of recovery. Great care should be taken to at all times keep in position to obtain the greatest percentage of pure fresh air; and one should ever bear in mind that the taking and using of long, deep breathing, at all times, is the only effective and sure method of obtaining the desired results from atmospherical benefits or treatment.

Malarial Poison When Going to Seashore.

As a matter of course if one arrives in this seashore climate with their systems overcharged with malarial poison, to such an extent as to cause the natural affections from such conditions, they should assist nature and the seashore in throwing this off the system by the judicious use of some anti-malaria tonic and a light liver regulator, such as Black Draught or St. Joseph's Liver Medicine, all purely vegetable and harmless to use.

A Heaven on Earth.

Now we have seen, do see and are seeing those great beneficial effects on the life, health and perpetuation of man's happiness derived from only a short stay on the seashore. Oh! what a heaven it would be! what a veritable Garden of Eden to live in, if the lands and business propositions were alike benefited by the same cause and in the same large degree and proportion as the health, vitalities and life of man. This occupancy of the hard seat of the inventor for twenty-two long years was spent for that most heavenly purpose. To say that I was successful would be only mildly expressing the results. They have been far more successful and satisfactory than I could have ever expected; as my exposition

and formula of instructions gained by scientific knowledge, will go to prove and demonstrate.

Salt; Its Effects.

Knowing what it is, knowing how it so benefits the health and vitality of man, and knowing the cause and manner in which it so successfully does this, is the whole secret of success. Yet this same seashore atmospherical influences are disastrous to farm animal and farm crop plant life, as has been proven by repeated efforts of man to farm this Seashore Country land and to keep and raise farm animals. Knowing the cause of all of this, and knowing how to correct it and make it as thoroughly beneficial to farm animal and farm crop plant life to the same degree as to the health, vitality and life of man, has been the crowning success of my long, arduous term of inventorial and scientific investigations, open field demonstrations, experimental experience, and deep thought and study.

Its Properties as a Chemical Medicine and Food.

Salt is a chemical, medicine, and food in its properties, both of which are indispensable to animal and plant life alike—sedative and stimulating and astringent. It has also highly preservative and purifying qualities, and wherever it is a most predominant feature, as in our seashore country's climate, it roots up and drives out every vestige of carbonic acid gas and malaria, the presence of which is so urgently necessary to the successful agricultural tillage of the soil and of growing of crops useful to man; hence the great healthfulness of this salt permeated atmosphere for man. The chemical is also highly soluble; is easily dissolved by water, dampness and

moisture, and in this liquid and atmospherical form it is easily assimilated with the soil and air, and is made highly available to animal and plant life, to both of which it is beneficial alike and urgently necessary.

As an Enrichening Substance of the Soil.

If all the conditions of doing so are the same (as I will illustrate and prove), salt being highly soluble when met by moisture and being in itself a great producer of dampness and solvency of other solid and enrichening substances, and thus converting them into a liquid and absorbative form, making them highly available and easily taken up by the systems of both man, animal and farm crop plant life, thus creating such inordinary increase in the taking on of flesh in the one and foliage in the other; and of such renewed vitality of both and all, and that the increased appetite of the one and the demand of the other for additional and sufficient nourishment, by way of food, is so great that if not available and supplied in most liberal quantities, disease and probable death, is the most certain and ultimate consequence.

Man and Animals' Source of Nourishment.

Now man's nourishment is ready prepared food, furnished in the best possible and most palatable order from pantry and kitchen, and in the required quantities his increased vitality demands. The farm animal's increased appetite and demand for increased quantities of food depends on the price of feedstuffs, the proportional supply contained in bin and barn, and the generosity with which same is supplied, which very often is not in accordance, and equal to

the increased demand for the same by the increase of vitality and appetite in the animal; while the additional wear and tear of the animal's system, by steady usage at hard work, is also to be contended with, which, all in all, leaves the animal in very poor condition to cope with any disease that, through the exhausted condition of his system, may attack his physique. But for which my work here will contain successful treatments for, and will save the animal, and with proper nourishment and better care in the future will not have to be repeated.

Food of Plant Life; How Derived and Received.

Likewise, plant life differs also from man in deriving its nourishment, and the satisfying of an increased demand for food. The food of all vegetable and plant life is in the soil. Its mode of receiving it is in and through the absorbing of and taking it up in liquid form, through innumerable, soft and tender, small tendril-like roots, being very soft, white, sap-like in appearance; and is kept so by the permeating of them of the liquid plant food which flows through them into the larger roots and so into the plant, feeding and producing fruit and foliage; some, so small as to almost be imperceptible, without the aid of a microscope, permeating all through every part of, and under the surface of the soil, and known as the feeders of the plant.

Best Condition of Soil in Furnishing Abundant Nourishment.

Now if the soil is strong and rich, and is in a high state of tillage, being soft, sponge-like, and loose in texture, and kept in a loamy, alluvial, mealy-like condition, so as to permit of those tender, delicate,

soft, sap-like feeders to permeate every particle of the plant's seed bed, and so absorb and take up the rich liquid plant food and convey same up through, and to the plant, to satisfy the increased demand for same by the plant's enforced vigorous growth, caused by the effusive, highly soluble, and creator of solubleness, sedative and stimulative chemical qualities of salt, in its liquid form of salt sea water and its permeated seashore atmosphere, and the permeating effects of it on and into all other solid substances, thus converting them into plant life food; and if the soil is made (as above described by the applying of available acid phosphates to take the place of the phosphoric acid, which stands in the same respects and nature as carbonic acid gas to the soil and plant life; and which the purifying effects and quality of the salt have driven out of the seashore soils, thus causing a deficiency of this important one of the three elements of plant food, the complete combination of all three of which is urgently necessary and must be to insure a perfect source of nourishment to plant life and a large yield of crop, to the land's fullest capacity of strength and richness) and kept in a well cultivated condition, the plant (like the man will be benefited to the highest degree—for, like the man, it will receive sufficient rich and nourishing food, as its increased vigor and growth causes an increased demand) life of the farm crops will be vigorous, healthy and will produce a healthy, full, plump and sound grain in wheat, oats, corn, or whatever crop of its kind it perchances to be; while like the ill-kept and poorly nourished and fed farm animal—if kept like them and poorly nourished and fed, it

would become diseased, i. e., have the rust, smut, etc., which so spoils and damages the crop as to make it unfit for use; and people not knowing the trouble, and not having this knowledge, would construe it to be the fault of the climate; when there is not a more ideal climate—now that we understand it—for agricultural purposes than the seashore country's climate here or in any other part of the world. The only trouble before was that this most essential and beneficial element of chemicals to both animal and plant life—SALT—was supplied in such a bountiful manner as to overbalance the proper proportion and combination of the other elements of plant food in the soil; and though the richest in all of the more costly plant foods, of all lands in other parts, and more distant from the seashore, yet the deficiency of the more minor or less costly of the soil's plant food caused such a non-productiveness in the soil as to make it utterly useless to man in the production of all those crops that go to maintain and support life in man and farm animals, especially the horse; the hog coming next, as it requires crops of grain, etc., to profitably raise and keep them; also all kinds of poultry, and many, many unfortunate and afterward disappointed people; having tried to build up for themselves farm homes in this beautiful seashore country, with a soil that had a slight defect in it, causing them utter failure of anything like profitable results, and the loss in many instances of their beautiful farm stock, which not being able to raise grain crops and give proper feed and nourishment, as their increased vigor and appetites demanded, contracted disease, from which many never recov-

ered. Oh! it is sad and would make the most hardened of mankind feel a deep sorrow for those poor unfortunate fellow citizens who only a short twelve months before were well-to-do farm people with ample means of self-sustenance and independence, now bereft of all; and them, and those beautiful children and loved ones of theirs, almost on the charity of the public, suffering privations and want; selling out their little remaining comforts in their homes to get means to convey them back to the hard and disagreeable climate of the interior, from which only a short while before they had such high hopes and anticipations of being forever free, and of being and living, day after day, month after month and year after year, one long lifetime holiday in this public playground and health resort. The beautiful seashore country, when I think of it and know that I have invented and learned scientific knowledge that will now make all of those high hopes and anticipations a solid and indisputable reality, I almost feel like shouting for pure joy; and trusting that I will not be thought vain, or adjudged a braggard, yet knowing the hundreds and hundreds of millions of acres of beautiful seashore country lands that are in the world today doing nothing more useful to man than harboring the unsightly cesspool with its every attendant annoying insects, and growing the almost useless wild grasses and weeds; while the people are occupying homes back in the interior, with its hard climate of excessive heat in summer and extreme cold in winter, with its more malarial and disease producing atmosphere, when now with this knowledge every acre of this Sea-

shore Country all over the world, and in every nation and country, can be, and will be, included in the beautiful farm home of some fellowman when this little book of this most valuable scientific knowledge is once in their possession, for use and reference, as to how to now build up a happy, self-sustaining and profitable farm home there. I can't help but feel and think that I have accomplished and finished an invention that will be the means of bringing happiness and prosperity to more of my fellow-men than any other single invention that ever was completed, and will also be the great source of vastly increased wealth, power and fame to and of every country that has a large scope of seacoast plain land in her territory.

Chemical Analysis.

The chemical elements of plant food contained in the soil, as determined by the scientific analysis of same by the Texas State Chemist, their different natures and the respect in which they are required to grow the plant, develop and mature a full, sound, and an abundant yield of the many farm crops useful and urgently necessary to support and maintain life in man and farm animal, the scientific analysis of the soil goes to prove that it contains three elements of chemical plant food that are requisite to the proper growth of vegetation (and the strict and perfect combination of all three of which is urgently necessary to insure the successful production and yield of those farm crops useful to man). Now the first and most costly of these chemicals is nitrogen; the nitrogenous matter and potash contained in the soil is formed by the decaying, decomposition and

solvency of all vegetation or solid matter deposited, growing and decaying or falling thereon throughout the long ages of its standing, and where there is no counteracting influence of the stronger chemical, salt, with its purifying qualities, which drives out all impure or foul chemicals that create and institute carbonic acid gases, so necessary to alluvial, loosen up and create warmth and loamy conditions of the soil, there is a full quota of phosphoric acid, the third and last of the three analyzed chemicals. Of course there are other natural features, such as salts, carbon, oxygen, ammonia, and electric influences, all of which are principally derived from atmospherical treatment and influences, which, if the soil is properly stirred and kept open by frequent and thorough cultivation, the plant life will derive full and complete benefit.

To Ascertain Rich, Productive Soils, Etc.

Now to complete a depleted soil, where the deficient chemicals are determined on and ascertained by the soil's general appearance, viz., an old, long-cultivated and worn soil, such as is often seen inland from the seashore, will plainly denote its lack of nitrogen and potash by the sparse, small and weak growth of vegetation thereon. To make this soil productive and rich it will require the adding of cotton seed meal, a liberal and heavy coat of leaves, barnyard manure, straw or some heavy organic matter, in large quantities; the plowing of them under to decompose and rot, and the additional application of a mixed fertilizer, of say 8 per cent available acid phosphate, 3 per cent potash and 3 per cent nitrate, at the rate of 250 pounds per acre the

first year, and 300 pounds the second year. From thence it can be doubled and tripled with good effects, until the soil can be made—by very deep plowing, say from 10 to 18 inches deep—so rich and productive as any ordinary rich and well tilled soil.

Sea Air Influence on Soil.

Now the above described thin, light, poor soil is rarely or ever seen in any portion of the country where the direct influence of the liquid chemical salt-laden atmosphere can be brought to bear on it. On the contrary, it will have a heavy, and heavier, a more compact and tougher texture, being more obdurate, harder to work up into a seed bed. As you near the actual seashore beach you will also observe great jungles of tanglewood-like, and the most gross, heavy and luxuriant growth of vegetation, thus denoting the overwhelming quantities of nitrogenous matter, salts and potash contained in the soil, which produces this great profusive and luxuriant growth of wild vegetation; but which, without the third—or third and fourth elements of chemicals, you may say—for, as we have seen, salt is urgently necessary—the same rich soil will not produce the farm crops so essential to man.

Correcting the Defect in Coast Soils and Causing the Same to Now Be the Means of Producing the Largest Crops of the World.

Now that we know the deficiency and the cause of same, and that that same cause is the means of this same soil's inordinary richness, we can, by way of adding from 250 to 300 pounds of available acid phosphate to the acre on the heaviest, most obdurate soil to 150 pounds on the lighter ones, with a decided

hillside slope, where the water quickly sheds off after each rainfall, supply the deficiency of the phosphoric acid made by the stronger chemical, salt, and so balance up a complete, rich and abundant proportion of plant food that, with proper breaking, pulverizing, planting and cultivation, will convert the great cause of the defective productiveness hitherto originating so much failure, want and losses, and the utter overthrow of so many high hopes and anticipations, into the great medium of production of the largest yield of abundant crops of all that goes to feed and clothe animal life and mankind of any land in the world not deriving the direct benefits of this liquid salt atmosphere of the seashore. Oh! great is scientific knowledge. "Knowledge is power" is one of the oldest, yet the most true of all Proverbs.

Preparing the Soil, Etc.

Now in preparing this land from the raw soil—where it has never been plowed—great care should be taken to not plow exceeding the depth of one or one and one-half inches the first plowing. The regular rod, prairie sod-breaker (walking), cutting 16 inches, is the most handsome and easiest plow operated for this purpose. Carefully follow breaking plow with harrow and smoother, pulverizing the soil before the furrow has had time to dry out and become hard. Four acres done this way will not give as much trouble as two acres would if the furrow is permitted to dry out and become baked before harrowing and smoothing. The next plowing should be done as deep as an ordinary turn plow's capacity—that is, to carry a full furrow, not at any time showing any part of mold on furrow side while plow is in actual

operation—which is most usually from 5 to 8 or 9 inches deep, and in an ample rainfall country, with shallow well water for sub-irrigation and a temperate moist climate, is of ample depth for all purposes and best results.

Deep Plowing in Arid Regions.

As a matter of course in a dry, arid region, with sparse rainfall and no irrigation, the deeper the plowing, even to as much as 20 inches, and done as far ahead of planting time as possible, in order to catch and retain all of the sparse rainfall and so conserve it as soil moisture, to produce crops in an arid country, is urgently necessary, and often insures an abundant yield, where the cultivation has been frequent and the land stirred after every rain that would tend to form a crust and so cause quick and sure evaporation of the soil moisture, and the cultivation done shallow and permitting of loose soil to fall back in furrow, and keep same well covered and protected from the scorching and fast evaporating effects of a hot sun.

Plowing in Rainfall Country.

But deeper plowing than above described in an ample rainfall country.—Now, I don't want to be understood as advocating mere scratching, etc., of the soil, for that is disastrous of any results whatever;—but follow the directions as given and the desired results will surely follow. The science of it being that in an ample rainfall country we sometimes have an excessive amount of rain and if the surface richness of the soil were turned under, say from 10 to 20 inches in depth, the fall of water would sink it beyond the reach of plant's availability, and so im-

poverish the plant life of the crop. I know I am right, for I have seen scratching and scraping of the soil give disastrous results, and I have also seen deeper plowing than necessary do the same in an ample rainfall country.

Preparing Land for Wheat or Oats.

The land now being thus prepared, if early in the year and for wheat or oats, can have 300 pounds of a high-grade acid phosphate—analyzing 14 or 16 per cent available acid phosphate drilled in with wheat drill 4 or 5 inches in depth, if heavy, level-lying soil. If on a decided slope and soil is light, easily worked—black sandy or light sandy—200 pounds of phosphate per acre is sufficient. As before stated, if this land is being prepared for wheat or oats, it will now be permitted to remain in this condition, with the exception of running the disc over it to destroy weeds and grass, until September, when it should be rebroke, harrowed and smoothed as before described. Drill in same amount of acid phosphate 5 or 6 inches deep, when it is ready for planting of grain the first two weeks in October. When up good and strong, say shoe-top deep all over, light pasturing can begin, and so on, as plants permit throughout the winter, great care being taken to not injure the vitality of plant by too close pasturing. As early as seems safe in February or March, remove all stock and permit of crop growing off and developing its fruit at the earliest possibility of time, and thus mature the same before the severe early summer drouth, which sometimes are in evidence, and cause disease—rust, smut, or an imperfect grain, and which the early

maturing grain will head off to a great extent in its early maturing.

Now all small grain will be the better for some manner of cultivation (to break the crust formed on soil by heavy rainstorms in winter and early spring) to conserve the moisture for developing and maturing the grain by permitting of the air to permeate the soil through the open and cultivated surface, thus permitting the moisture, and chemicals in air of early morning and all night to enter the thus opened soil by cultivation, and secure a capillary motion of the underground sub-irrigation of shallow water strata and sand, with the overground effects; also the chemical plant foods of the soil with those of the air, thus keeping the ground in an alluvial, loamy and live condition and affording ample nourishment to the plant, according to its increased demand by its vigorous growth and the heavily putting on of new fruit to be developed and matured into healthy, plump and nutritious grain, which all of this extra and wise attention will greatly enhance and insure.

Wheat and Oats Cultivation.

The most feasible and profitable tool in my mind for this purpose would be one made as follows: Take a drum, or round log, of say 18 inches in diameter, place three rows of harrow teeth, say to project from log 10 inches in length; place rows in serpentine-like twist in a gradual motion around log, the teeth to be of three-quarter inch square iron, sharpened and placed 12 inches apart in rows and dodged. This will make a complete wheat and oats cultivator and can be rolled over the wheat after heavy rainstorms, that will if left alone tend to form a crust on

the soil and so work such disastrous results on growing crop.

Right and Only Proper Way to Prepare Soil.

Now there are some old true sayings, as follows: "Be sure you are right and then go ahead." (Davy Crockett.) And another: "There is only way of doing a thing for positive and sure success, and that is the right way." And to here make an indelible and lasting impression as to the vital importance of the right and only proper way to prepare the soil for its great work, I will again enforce my argument of following the breaking plow with pulverizer and smoother, in order to get this great work properly done before the soil moisture has been dried out of the upturned furrows, which thus being left in a decided molded form of square brick-like bodies, separated from the parent earth and its most needed vital influences of crop-making nutriments contained in the bowels thereof, and when circumstances are favorable will ever work to the surface those elements of plant life so urgently necessary to its vigour, flourishing and most thrifty growth and existence. Now all of this being debarred and greatly hindered by the ignorant and neglectful manner of leaving those upturned and separated bodies of surface soil, containing the great stores of rich plant food, to dry, die and lie dormant for an indefinite period of time, awaiting the expected rainfall to enable or make possible the pulverizing and preparing of it for the use of plant life, which is often delayed, to the great loss and disastrous detrimentality of the successful growing of a vigorous, flourishing and healthy crop plant life; and then the tiller of

the soil, through his ignorance of the nature of the cause of his non-success in producing a desirable yield—though he afforded every manner of proper cultivation afterwards for the growing crop, will construe the same to a defective climate, etc.

Best Harrower and Pulverizer; How Made, Etc.

Now for the least expensive manner in which to do this, and as a furtherance of this great work of successful farming, I will outline the contrivance of the greatest pulverizing machine or implement I ever saw, viz: Take two pieces of 4x4 timber (good tough, heavy pine will answer all right) of 5-foot length, join together, rafter fashion, at a one-quarter pitch angle, which can be obtained by laying of a square on the timber with four-inch mark on tongue of square and twelve-inch mark of body of square being even with inside edge of timber; mark the left-hand or tongue side of line; saw and join together as rafters would be; lay the same on a level ground; now secure a piece of 2x4 of same length as the former two pieces of timber will make in width; lay the same just abreast and in front of the angle-like shaped 4x4's; now get some 2x4 stuff, cut in sufficient lengths to reach from 4 inches abreast of 2x4 in front of 4x4 angle-formed pieces and to the rear of same sufficient to include a 1x12 in. boxing plank at an angle of 4—18 on tongue and blade of square; now nail on 18-inch piece of 2x4, flat side on, to the 4—16 or 18-inch in angle edge end of short 2x4 pieces with angle turned down; get a 1x12 box plank, lay along on ground just behind the 4x4 pieces; now lay the short 2x4 pieces (four in number) at equal distances across from 2x4 long piece

in front to 1x12 plank in rear, with angle made by nailing short 2x4 pieces flat side down to angle of 4—16 or 18-inch on edge of 2x4 reaching across with angle turned down and 1x12 box plank nailed to under side, box plank being just in rear of 4x4's and reaching across to the same width of same. This being done, now bore holes for harrow teeth, 10 inches apart, in 4x4's, drive same in with some 8 or 10-inch in length of tooth, extending down to soil; the 4-inch surplus ends of crosspieces now being fitted with clevis for attachment of team. It is now ready for operation. Two heavy animals, one to each end of pulverizer, have worked it satisfactorily; but a double team can be as readily hitched on, and with ample weight being put on it, is the greatest pulverizer and seed-bed preparing machine. following the breaking plow and doing the same before moisture has dried out, that could be or ever was invented. The harrow teeth in front catching the separated and upturned furrows before they have been permitted to dry out, tear them to pieces, and the 1x12 or 14-inch box plank just in rear of teeth, set in split-log drag fashion, of pulverizer and smoother, catches the torn up chunks of moist soil and grinds, pulverizes and smoothes them into the most perfect seed bed form of conserved moisture and liquid plant food easily available and of absorption to seed when planted and to crop plants when ushered into existence; thus affording it the required nourishment that the exhilarating, ideal climate will cause a demand for, and if forthcoming and abundantly supplied will cause plant life to reap the full benefit of; as did man, whose increased demand for

nourishing and flesh producing food was supplied in full and sufficient quantities, without question or dispute. Now I think and feel confident that I have made this most vital and important feature plain and easy of comprehension to one and all.

Now the foregoing preparation of the soil will answer for one and all kinds of crops, with a little special directions for the slightly different manner of the utilizing of same for that purpose. If land is wanted to be planted in other kinds of crops besides small grain and can be prepared the fall before, or even in the winter months, I would advise the same manner of preparation—phosphates and all—and let it lay in that condition until February.

For Corn.

If for corn, and the party has riding planter with lister in front, remove lister and replace with an 8-inch heavy shovel plow; use planter for phosphates distributer; lay off corn rows with riding planter 3 1-2 feet apart; have shovel open furrow of sufficient depth to permit of planter putting phosphates in from 5 to 7 inches in depth; drill in an additional 200 pounds per acre with smoother in action behind covering plows of planter. When done it is now ready for the planting of corn. Place one bushel of seed corn in a box or tub; pour two tablespoonfuls of coal tar over the same; take the end of an old broom handle, stir energetically until every grain has tar over it; sift a double handful of dry ashes into it and stir until tar is well covered and will permit of handling without soiling of hands. This will protect the seed from any possible destruction

by insects and the raids of birds while coming up.

Cultivation Properly Done, Etc.

Thin corn to one stalk two feet apart in drill, strictly; cultivate properly, always keeping all storm crusts well pulverized as soon after each rain as land will permit until corn is safely made, and keeping the furrows in cultivating well covered with loose soil, and so conserve moisture from evaporation.

For Cotton.

If cotton is to be planted, remove planter and only use the lister, plowing a deep, full furrow every four feet; keep these elevated beds between furrows smoothed nicely with smoothing implement, but not to leveling down any more than can be avoided. When done the land is ready for drilling in of phosphates by planter, with 8-inch shovel as per corn, formerly; only this is now to be done on the elevated beds; and planting of cotton begun near the first of April, always keeping smoother behind every upheaval of soil; give cotton one good cultivation with shovel cultivator. I absolutely discard all disc plows for cultivation, owing to their leaving the furrows bare and unprotected from too quick evaporation of soil moisture. Then with hoe thin to one stalk every 18 inches; cultivate again, always keeping a nice loamy high bed around cotton by plowing a deep furrow with 18 or 20-inch sweep in center of middle, permitting of furrow being well covered with loose soil behind the plow. Now thin cotton with hoe to one stalk in hill, 3 or 3 1-2 feet apart in row; cultivate well, all weeds and grass out, and at all

times have the soil of a fresh, loose and live appearance.

Cotton Insects; Boll Weevil.

During the first forty days after plant begins putting on of forms and blooms, if the boll weevil is causing any falling off of same, they should be—strictly—all picked up and burned. Now this is not as big a job as it at first sounds, for any smart little fellow or hand can do it, and go over from 15 to 25 acres per day, when cotton is small, taking six or eight rows at a time and get everything clean. In summer if any insect pests of the cotton are in evidence, take of paris green one part, flour one part, and hydrated or slack lime three parts; make two sacks, out of burlap or grain sacks, of 11-2 gallons capacity; after the above ingredients have been thoroughly stirred and mixed, so as to appear all of one color, fill bags and tie one to each end of a light, stiff pole or stick (a light quilting frame answers fine). Early in the morning, when the dew is on the cotton, take the pole in front of you on a horse and ride through the cotton, taking four rows at a time, continually shaking or jarring pole sufficiently to cause the emission of a fog or dust from bags that will gently float over and through the cotton, and remaining on same, will be the means of ridding same of all insects, including that most destructive cotton plague—the cotton boll weevil; and as this is the first and only effective remedy for that purpose, it is of the highest value to all cotton countries.

Demonstration of Test.

It was fully demonstrated and proven in this country this last season, and kept cotton blooming and

making until its full quota of bolls were developed and matured, or until frost; and I more fully had demonstrating evidence of its efficacy as a true remedy in my own experimental experience by leaving of some cotton in, and adjoining the other that was fully treated. The cotton not treated was practically a failure and had only a very few and scattering bolls, while the other that was treated had a full and abundant quota of bolls; so that this valued moneyed crop now is practically safe and fully protected from all of its many insect pests and ravages that created so much discord, uneasiness, expense, waste and loss, and with my exposition and defining of science and nature and the outlines of my scientific but plain and easy to follow instructions, that crop can now be grown and produced as it never has before and could be without this learned knowledge. This same means of making a whole and complete soil will answer for all manner of crops; for all crop plant life, to thrive and grow to the limit of their capacity, require the combination as a whole, and in perfect order, all of the three or four chemical plant foods contained in a whole, complete and well balanced and productive soil; and when sufficient moisture, proper planting—and in the proper time—proper cultivation and all at proper times to avoid waste of soil moisture and the non-availability of the rich plant foods to properly feed and nourish the plant, are all in evidence.

Proper Drainage, Etc.

The next important feature of making a success of all the above is proper drainage of the crop plant soil. To do that in the least expensive and most suc-

successful manner is the purpose of the rules herein given. Where a body of land has a decided slope or fall to some one of its many sides, and the same is rightly determined, a system of ditches sufficient to convey all standing water from and off the soil, is all that is required; but with a large body of absolutely level lying land with depresisions upon surface, the drainage or disposition of the surplus water is indeed quite a serious problem, and one that is a most wonder working puzzle to the owners and prospective inhabitants, who wish to utilize the same. This can be done, however, and the same can be made most valuable agraicultural soil. (For man can drain a level lying land and make it conductive of great possibilities in agriculture and an everlasting and durable soil, indestructible by time or temperature; but he can not level down and fill in a hilly and washed land and accomplish the same results.) Now where a body of land is very level and flat, a man can by locating the lowest sinks upon its surface and the putting down, by digging and curbing, or boring and curbing—or still again, the driving of pipe-wells to the water sand or strata that most usually can be found and does underlie the surface of those lands, at the shallow depth of only from 8, 10, 12 to 25 or 30 feet, and thus afford a quick, effective and sure system of drainage of those lands, and at a much lower cost than the usual mode of tiling, etc., heretofore resorted to and practiced, and that was so costly in the performance of as to be altogether impracticable to the ordinary man not of the most liberal means. Now, as a matter of course, those means as a sink drainage will all have to be

shown the proper and requisite amount of attention, as all systems of drainage do and are shown for the proper keeping in repair and working order their most efficient means of drainage. When first made the bottom and top ends of curbs or pipe should be well protected from the too quick clogging of water sinking propensities by the filling in of coarse sand and particles of soil, by a sufficient screening of same with a very fine meshed article of screen wire, well protected from corrosion and decay by painting of same with some good water-proof paint or coal tar, the tar being applied in a boiling condition, when pipe has been driven down to well water, using the customary drive well pipe with point and seive or strainer on end to enter ground. When same has been driven to the water below there should be an 18-inch depth of 3-foot square hole made with top of pipe in center and about ten inches in height from bottom of hole. Now with top of pipe well screened and 2x12 pieces of lumber nicely laid over the 3-foot square hole, the drainage system of that cesspool, slough or mud hole or particular body of flat land is complete, and the land well prepared as per directions afore stated will be the richest and most productive of farm land and the hibernating and producing causes of the fatal charbon and other poisonous and disease bearing and annoying insects forever put an end to and exterminated.

Now this most valuable cheap and efficient mode of drainage has been open to me for suggestion of successful practice by open demonstration in one instance, by the taking of a trip through old Ken-

tucky in another. In going through certain portions of that State of certain natural wonders that no other country contains, one will observe great open excavations upon the surface of a part of its country—as though large open and empty surface tanks or ponds, with no possible outlet for water accumulating in those seemingly open receptacles for same, through excessive rainfall or otherwise. My trip was made just at the expiration of an excessive rainfall season in that country. The rivers and all streams were all swollen to their full capacity of holding their waters within their proper bounds and meet; but not a gallon of water was visible in those open receptacle, tank-like apertures. A profesisonal man boarded the train at some wayside station, and I made it convenient, in the ordinary run of conversation, to learn of this, to me, most mystifying occurrence, or break in nature, the non-visible appearance of any water whatever in these seemingly open and empty tanks or ponds. He explained to me that the water sank through the bottom, and that those open receptacles, with a capacity to hold many, many millions of gallons or barrels of water, and that were not only at all times void of the least appearance of same, but were clothed with a most healthy and luxuriant growth of vegetation and plant life, were known to the people of the country as sink holes. Now, there is the whole thing in a nutshell: Those deep, open and empty tanks either extended down to the underground water sands or streams, or to just above some other open-mouthed receptacle, for all the surface water falling in, and so conveyed to them through this non-failing source of same.

Knowledge is power. Through the attaining of scientific knowledge by the inventive genius of our country, and the putting of it in practical form by them, is the cause and support of our most advanced stage of civilization, and the contriving and production of so much convenience and comfort as the population of today are enjoying, and without which gold, money or any other separate means would not have and could not have produced.

Farm Animals; the Horse, Etc.

Now all the foregoing, demonstrating how to attain a high perfection in all manner of plant life, to the furtherance of man's happiness and prosperity. The next is how to keep, have and grow all of the farm animals, on the success of which man's happiness, comfort and prosperity so much depends, and the which my learned exposition and defining of science and nature will portend to the attainment of. The horse is the nearest, in comparison, to man, as the companion and co-laborer in all of life's duties, occupations and callings, of the other farm animals; and hence their greater demand for their master's attention and proper care of, and ofr their health, comfort and successful existence in any and all parts of the world where man and horse are called upon to inhabit and occupy. Horses' systems, like man's, are greatly influenced by change of climate, and will undergo all of the several and changeable influences of the same that man experiences; but who always hitherto or heretofore was not supposed to do so, hence the disastrous effects and losses of that poor fellow's comfort, and to the owner and master. Take man and set him here, under the great producing

influences of this liquid chemical salt atmosphere of the seashore country, of an increased appetite and demand for more concentrated and nourishing food, and furnishing of it more abundantly and in a more generous supply, and keep him most sedulously employed in hard grinding down of and life absorbing toils (as the horse is, in many instances, and without the increased supply of nourishment and more concentrated foods, such as oats, wheat bran, shorts and good corn in abundant and liberal supply, as his increased vigor and appetite calls for) and give him a meagre ration with small percentage of nourishment and nutriment, to satisfy this life sapping increase of appetite, and instead of the happy results now manifested in man in this health giving seashore atmosphere we would often witness the disastrous results in man, alike, as we have in the horse; where if the horse had received nourishment in accordance and as man did the happy results of the invigorating and life giving seashore atmosphere would have been alike in both instances.

Effects of Sea Air on the Horse.

Those truths have been demonstrated to me in the highest sense of the word and are indisputable facts. But, as will be seen in other parts of this book, I have stated before, through unavoidable causes or reasons the horse may become debilitated and contract disease, peculiarly attendant on the acclimating of horses to a strong sea air climate, and the which has at all times proved fatal to animals affected; and the locating of which causes, name of sickness and any possible preventive and cure has been so incomprehensible and impossible, even to

our most learned veterinary surgeons, with every facility and means for investigation and experimental diagnosis, etc., and then admit their utter defeat and inability to fathom the mysterious disease or diseases; for I have had it to attack horses in more farms than one; and up to this last year in the early spring, and nearing what has successfully proved the accomplishing and complete finishing of this study of the seashore country's climate, etc., and of science and nature, and the most complete exposition and defining thereof, has in every instance proved fatal and the complete loss of all animals so affected. I have already given a part of the cause of this trouble in our most faithful friend, the horse, in the foregoing comparison of man and horse, under the same conditions of feed and nourishment, under the influence of the liquid chemical salt atmosphere of the sea; but I will enlarge on it more fully as to its effects with and on the horse.

Properties of Salt, Etc.

Now, as salt has in its dissolved liquid chemical form of sea water, great, permeating, solvency, sedative, stimulative and astringent properties, we will see at a glance now that we understand the situation.

Nervous System, Etc.

How it reacts on the entire nervous system, and vitality of the horse, and all the animal kingdom. The nervous system of all animal life stands in the same respect to it that steam does to the life of all steam power machinery; the nerve power, or force, of the animal is the means by which every muscle, sinew, tissue, and fibre of the animal's working

force, power and senses; its powerful strength of action, sight, smell, feeling, hearing, tasting, feeding, digestion, and all the working of the interior organs and functions that makes blood, flesh, and all the tissues of the animal's anatomy, brain, reasoning, and thinking faculties. Now take an animal—man or beast—that will, in a high altitude, of thin, laxative influences, on the nerves, be highly nervous, and unstrung, when moving; will do so, with all the increase of speed, and action; and power contained in their physique, if not restrained by some other power or means foreign to their own, until they will actually drop, or be compelled to stop, through complete exhaustion of their physical capacity, thus denoting the unbalanced and weakened condition of the nerve force, of the system; for the want of a sedative, and stimulative tonic—either in feed or diet—or the atmosphere of the climate. Now the converting influence of the sea atmosphere, of so much of their diet of nourishment, for the body, into nerve tonic, that if additional liberal supplies, of nourishment for the physic, are not forthcoming, a perceptible weakness of the same, will be in evidence, and a very poor quality of blood, or a debilitated condition thereof, will ensue; which will lay open the system, for the contraction of diseases, such as great debilitation, fever or blood poison, which in each and every case will prove fatal, if the cause, symptoms, and proper treatment are not known, all of which I am giving in this wonderful exposition and defining of science and nature.

Diseases of Horse in Acclimating and Treatment.

I will treat this subject in two clauses, for there

are two distinct and separate sicknesses or diseases of the horse in this category of casualties. Producing cause, first, which is a fever, very weakening and fast producing of great emaciation fatalities, and the death of the animal so affected. When horse or mule is becoming affected with this trouble, they will exhibit great signs of weariness; will be lazy, sluggish, and of very little life, or inclination to move; will lose flesh very fast, and will, at every stop, show an inclination to sleep, and with hanging head and lopped ears appear as though fast asleep, when the opportunity is afforded in or by way of a stop or halt in their work. They will in the last stages also have no inclination to eat, and will with their feed trough and manger full of feed, directly in front of, and easily available, prefer standing, with head down and ears lopped, sound asleep. Upon the touch of the animal's body by the hand, it is easily discernible that his temperature is high, and has fever.

Treatment: Put 22 drops of tincture of aconite root into a teaspoon; grasping a firm hold of under jaw with one hand, thrust spoon inside of mouth, and as far back as possible; overturn the same there, leaving all of the medicine on top of back part of tongue, and in the glands of mouth, at the same time releasing hold of jaw. The animal will in a few minutes show some signs of interest, and will most probably commence eating. If done at night, repeat the dose in the morning and next evening. The next morning give dose of blue vitrol, as per for botts; which see, now let animal have ten days or two or three weeks rest, with run of pasture lot.

Feed well and judiciously, on wheat bran, oats and corn, as a well balanced ration, three tiems a day, with small portion of some good stock food or powders in feed at night.

The second trouble of and following acclimating is show up as blood poison, and appears about, over and on some parts, or part, of the animal's anatomy, in swollen places, or lumps, under the skin, in various shapes and sizes. Sometimes the sheath only will be swelled; but more often on some under part of animal; from under jaw, neck, or under belly, maybe inside of hind legs, from hock upwards. This all denotes and is caused by a debilitated condition of the system. The blood being poor and impoverished, in quality, fails to, and does not, circulate properly through body, to replenish the wear and tear of same and so becomes stagnated about in places, decomposing and breaking through the skin, and causing running sores, of unsightly appearance and foul smelling in odor; the animal all the while eating heartily, or most generally does, but becoming more meaciated in appearance and losing flesh rapidly. The same treatment as for the preceding trouble will answer for this also—only that two doses of the aconite are required, while the tonic of blue vitrol and soda should be kept up morning and night for two days, and then only at night for a week, or until skin is showing a favorable appearance of healing, and becoming sound, and in normal condition. Feed as before, etc.

All Sores, Etc.

Now for all rope burns, nail in foot, wounds, wire cuts, etc., and saddle and harness sores, a running

fistula, or poll evil, I use a tablespoonful of finely pulverized bluestone in four times as much water, or less if severe wound, more if only slight.

Fistula, Etc.

For fistula, when newly appearing as a lump, on top of horse's withers, Kendall's Spavin Cure, and another limiment, Silver Pine Healing Oil; each being rubbed on separately and thoroughly, twice daily, until lump disappears; have been successfully used for this trouble, removing same and leaving withers in natural condition and appearance.

Poll evil and spavin, ditto.

Charbon, Etc.

Now there is one disease to be feared, and fenced from, with greatest of particular care and caution; and the prevention of any animal ever being stricken with it is insured; and as the animal only survives the attack of the disease a few minutes, or at the most two hours, there is no remedy. This trouble is known as charbon (pronounced "share-bene" or "sharr bone"), and has in years past had the most particular care, investigation, and diagnosis given it by most learned and scientific medical experts, who discovered the cause to be in the drinking of water from foul, fetid, and almost exhausted, surface ponds or pools; over and located in pasture, or range. Through inspection of this thick and fetid water by aid of a most strong and efficient microscope it was discovered to contain millions and millions of the most minute specimens of animalcular existence—invisible only through this means—the which, in resemblance, were likened to the split end of a horse hair, or the barbed point of a most minute

fish hook; from which they derived their name, for in their manner of attack, after animal has drank of the water, they plough—as a share—through every minute recess of animal's system, blood, bone and flesh, and shortly infect the heart, which is most usually accomplished before animal departs from infected water hole; and if great numbers of animals water at those places,—and are accustomed to doing so—after the water becomes infected, great numbers of them will be found dead and actually heaped up in those receptacles of death-dealing properties. As a matter of course it is plain to see the preventive is most feasible and sure; by the abolishing, by using my sink well drainage system, of this most disastrous mode of water supply, and the instituting of a clear, pure and healthful one; while the trouble, after attack, has no successful treatment, and such is as impossible as if the animal had been struck with the death-dealing current of a flash of lightning.

Purposes of This Work and Book.

Now it will be seen that those two great causes of disturbance, expense and worry, of not only the people but our Government, have been studied out—charbon in stock and boll weevil in cotton—and in this exposition and defining of science and nature have been elaborately dwelt on, and most successfully treated, along with other most important and necessary knowledge, and of equally as undefinable subjects, to the people and Government. I have here outlined a course of instructions and knowledge that will now furnish to the people ample and most sufficient information to enable them to now build up

and thoroughly establish for themselves most profitable, self-sustaining and prosperous, beautiful farm homes in this hitherto most improbable lands of the seashore countries of the world. Government of the countries in which those lands are situated has been throughout the long ages past, and are now, making the most Herculean efforts, by way of employing scientific experts, and the expenditures of millions of money, to this very thing;—not in entirety—but the successful growing of cotton alone, as a profitable and paying crop, and to which, according to my last information, the success of same is as far from accomplishment as when they began; while my most successfully completed and finished study of a long, arduous twenty-two years' duration has determined most successsfully all of the assertions herein made, as the most indisputable and unquestionable facts—glorious, comfort, and wealth producing facts.

Now, I will enter a humane plea for that companion, and most faithful friend, to man, of all the animal kingdom—the horse—and give a few well-tried, proven and true remedies for his most prevalent, pain-producing, and fatal diseases; and these most finished and complete results of my hard occupancy of the inventor's seat for twenty-two years will be brought to a happy finish and close. Trusting that good will bless it to the prosperity, comfort and happiness of the millions and millions of people for whom it was invented and gotten up.

Humane Plea for the Horse and Treatment.

The horse—that much abused of all the animal kingdom. First, by ignorance: Most people think he is strong as a horse; and their exaggerated views

of that amount of strength would do credit to a road engine; when in truth the horse in strength and vitality compares with man about twelve or fifteen to one. For instance, take a very strong-medicine, dangerous to give in a large dose, and given too frequently; if twenty-five drops is the limit for the horse, and four hours apart, two drops will be the limit for man, and given the same; and will have equal effects on both. Again they think because he is a horse—an animal—is not man of the animal kingdom?—the quality of the medicine or the way of treatment with it should in no way be compared with man in its purity, cleanliness or quality of drugs, or in the gentle, humane manner in which it is, or should be, administered to the poor, helpless creature, entirely at the mercy of his master—the man; and often he suffers untold miseries, and even death, through this ignorant, brutal manner in treating of him. He is a horse—a brute—they think, when of the two, man is the brute and the horse the humane—and they give him screw worm medicine—blueing—indigo—or any old thing; don't stop to think as to its being a proper medicine for internal treatment, or if it would be proper to administer it internally to yourself, only, twelve times less in quantity. No, you are no horse; but, the horse is an animal, as yourself; has same blood, bones, insides alike, lungs, liver, heart, stomach, kidneys, intestines, etc.; runs, sees, feels, tastes, and smells; in fact, has every iota of the fine animal make-up as yourself, nerves, brains, reasoning powers, memory, and a fine instinct and intellect. He talks his language; you talk yours. His fine sense of under-

standing and smart intellect enables him to learn and understand yours; but many times the man is so dull in intellect he can not learn and understand the horse in his language. Now, all of this reasoning I have put forth here is for a purpose, and that purpose is to try to teach a more humane and self-reasoning propensity, to always do unto the horse as you would have others do unto you. When sick give him pure, gentle, clean medicine, and treatment; do not pour it down his nose, destroying his fine sense of smell and almost strangling him; administer the same to him in a proper manner. If he will not eat it with his meal at feeding, put it in a bottle, and raising his head and nostrils, elevated sufficiently, empty or pour the medicine gently and slowly in his mouth, giving him time to swallow same without waste or danger of strangling. When driving, riding or working him, when he is showing signs of heat, fatigue, weakness or great weariness, in place of pouring the lash or whip to him, keeping him going, or to go faster, thus taxing his strength and vitality, to within an ace of his life (which is the main cause of so many very sluggish and lazy teams today; their natural given strength of vitality, of which in his original nature he was supplied with a large, sufficient quantity, stored for to be drawn from as his natural vigorous life should require the same; and if treated and used in his work and labor in a reasonable and humane manner, it never fails to do so; and the animal always has good life and vitality; will drive, ride or do his work willingly; start up at command, or move with an increase of speed, with very little urging; while on

the other hand, if when this store of vitality and endurance is overtaxed, or drawn upon too severely, by overdriving or riding, or kept on tugging away at the heavy load he is drawing, or the heavy plowing, when he is almost at the end of his endurance and ready to drop with tire of limb and body, and where if his master could see and perceive the same, and in a humane and feeling manner would stop the pulling, and load, just a short two minutes, to permit of him to catch up in a short rest, his almost exhausted working powers, his fine store of power and endurance would not be overdrawn, and system overtaxed; and the same good, powerful, quick and willing animal would be preserved for another day's usefulness and many days as good and willing, even to old age; when used inhumanely, and overtaxed, they become unwilling, weak and trifling, lazy, and altogether a very tiresome animal to have to use, when, poor fellow, it is none of his fault; but of the unfeeling one, who used up his store of vitality by imprudent driving of and working him. Be merciful to your team and horse; know that he has feeling, and a limit to his endurance which must be taken careful note of, and be preserved by proper use of the animal while at work. An animal properly used, fed and cared for, seldom ever contracts disease. But sometimes one can not always be in position to do this; for instance, one may not be at home at feeding time, or he may be in a rush of work, so much so that the horse, as well as himself, is unusually taxed. At such times he may contract a most quick and fatal sickness.

The purpose of these remedies and instructions of

the horse and all farm animals is to enable the owner to give the poor fellow relief, and save his life, for further usefulness, as has been done with these treatments in many instances. They are all true and tried; and followed as per directions, will be effective, to the saving of the animal in every case.

Colic; Cause, Symptoms and Treatment.

This is a very painful, acute, quick-acting sickness and relief must be found very quick or fatal results will follow in many instances. It is contracted in several ways. If the horse should become immersed bodily in a deep pond while he is warm from work, it is almost a sure producer of the worst form of colic. If drinking too heartily while warm, he will colic. Sometimes overeating produces it. From whatever the cause may be, it must be treated immediately.

Symptoms. When first stricken the horse will show signs of great uneasiness; will move restlessly about, knuckling his legs as if about to lie down several times before he will finally do so. The first few times he will immediately get up on his feet again, only to lie down again; in fact, he all the while shows the greatest nervous excitement, until as the sickness becomes more severe he will lie down and viciously roll, turning his head to his side as if pointing out the place of misery. At this stage swelling of the sides may be noted; if not, will shortly thereafter. To ascertain positively that it is the colic and not the bots, feel of the ears. If they are cold, colic is assuredly the case; if warm, and no swelling is visible, bots may be the trouble.

Treatment. Put two large tablespoonfuls of tur-

pentine into a pint of water that has had laundry soap to about the size of one-half of a guinea egg or less shaved and dissolved in the water; drench through mouth with head elevated by bridle thrown over a limb or beam and drawing up of mouth of sufficient height to keep medicine from wasting from mouth; rub and press the throat to cause swallowing. Relief will follow in a few minutes. When it does no further treatment is needed. I have never failed of one treatment being a cure.

Bots, Etc.

This trouble is caused by a short and sectional grub-looking worm (in appearance something like a young wasp still in the home cell of nest and before he begins to take shape), which attacks the wall of the stomach. The cause of which is generally the derangement of the horse's system by sudden change of diet, such as from an ordinary diet of corn or grain and grass to an all-grain feed, which causes gases to form in stomach, which greatly disturbs the bot, thus causing same to attack walls of stomach and eat its way through the same, if not prevented by proper treatment.

Symptoms. Are almost same as in colic, only the ears are warm and the horse not quite so excited in his actions. He will appear sick at first, and lie down as if to rest. After a short time he will begin to roll and reach head around to sides, and probably bite his flanks. There is no swelling of abdomen in bots.

Treatment. If away from home where medicine is not available or at hand, they can be relieved for the time (and I have done it and they never re-

turned) by gently and slowly rubbing the animal with hand from and along neck and side back to about half way of body, as if to keep him quiet, mumbling in a low, soothing voice all the while to cause a complete quiet and relaxed condition of nerves and animal. When in exact position to do so (which is about half way between front and back girths, and just under and beneath the sides) suddenly and with full force bring the knee up against the horse's stomach. Do this on both sides of the horse once or twice to the side. The jar of this sudden and forceful stroke, given when the horse is perfectly relaxed and not expecting same, so jars the whole system, and especially the stomach, that it completely knocks the bots loose from the walls of the stomach and so relieves the animal very completely. In many instances they do not return, or will not until the next derangement of the horse's system as aforementioned. Wehn they do give the proper medical treatment.

Treatment. Take a small piece of blue vitrol (bluestone, as most commonly called) about twice or three times the size of a black-eyed pea (or half teaspoonful of finely pulverized) pulverize very fine and put in a strong necked bottle (a beer bottle is proper); add two heaping tablespoonfuls of baking soda and one-half or one pint of water, shake well and drench through pouring in mouth. Turn loose and feed well on good grain and grass or clean, nice hay. No other doping or treatment will be needed, or should be permitted, as it sometimes, and in nearly every instance, proves fatal; while this treatment has never proven a failure in a single instance

in the run of thirty-seven years' use, and has saved scores of good animals where certain death would have been the case and was where this treatment was not used.

Founder or Laminitis.

Causes. Are from long, hard driving, overfeeding of grain or alfalfa or any concentrated feed, or eating when very hungry, or too much water when very thirsty. Feed and water properly and this disease will never appear. I never foundered an animal in my forty-five years' experience of owning, using and dealing in horses and mules, from a \$1.50 inferior specimen to a \$5000 fine specimen of imported French Coach, Scotch-Clydesdale, Percheron and fancy saddlers.

Symptoms. Are universally the same, as the misery is almost entirely in the front feet, and if not relieved will continue for balance of life, so becoming chronic. I just completed a treatment the last short while that is a crack shot, as proven by parties I co-operated with and myself. I purchased a very nice mule with some fourteen months or more standing of chronic founder, and relieved and cured the same, thus making a useful animal out of a most useless creature. When animal is discovered suffering from this trouble he will appear to be in great misery, and be very much drawn in appearance, the seat of the trouble plainly proving to be in his fore-parts, from shoulders down to and including front feet. Animal will stand as if making all efforts to throw the stress of his weight on his hind feet, and I have seen in very severe cases (and where they had been repeated several times in the same ani-

mal), the poor animal rise up on his hind feet and paw the air with his front feet in his vain efforts to find relief.

Treatment. And the only sure and entirely effective one I have ever discovered, or that is in use to-day, as all treatises on the horse that I have ever seen claim there is no cure for chronic founder: Pick up the front foot of animal, clean out bottom and frog thoroughly; pour spirits of turpentine well over the same, getting it well in all the crevices around the frog. Now, having a sharp knife, make a vertical incision just over the top of hoof (being careful to not touch or injure hoof) on outside and three-quarters of distance back from front of foot, sufficient to permit of the thorough bleeding of the foot. After bleeding apparently enough for complete relief, saturate parts with turpentine. Within a sufficient, humane length of time for recuperating from the trouble and treatment, the animal will be found to be all right and ready for active business.

Abscess of the Brain (or Commonly Known as Blind Staggers).

Causes. Overdriving and work when very warm weather exists, and exposure to a very hot sun, when animal is excessively fat, or when they are being fed exclusively on corn or some very concentrated and heat-producing diet. Feed a well-balanced ration of good meadow hay or grass with the grain, be merciful and humane in the use of your stock, and you will never, or rarely so, have a stagger case. (Have never had one of my own keeping.)

Symptoms. As this affection is entirely of the brain, the seat of sickness can be easily located. It is

in horse as brain fever is in man. The horse at first will show very plainly he is sick, and as the disease advances will become very restless and appear blind, butting his head against fences, etc.; and if lying down do the same if any objects are in his reach, even slamming his head against the ground with great force (poor fellow!), thus greatly injuring himself in vain efforts to relieve himself of the splitting headache he is enduring, caused by an excessive supply of water on the brain, or corruption.

Treatment. Cast horse on ground and secure his feet by tying hog fashion; lay his head flat on ground; place a 1x12 plank across the neck and head, by which means, with sufficiently enough assistance, the animal's head can be held still and quiet while one can shave the hair from directly over the brain (which lies upward from a line drawn across the head just above the hollow sink over eyes of animal); place a poultice of cantherides (or fly blister) made by spreading same on heavy wrapping paper and sufficiently large to cover the brain; place this poultice nakedly, or without any covering between same and the skin, directly over the same, pressing well on with hand; bandage to avoid being displaced; allow to remain for two or three hours, or until animal appears to be relieved; remove poultice, and when blister develops clip and dress with cotton batting; give twenty drops of tincture of aconite root to allay any fever the animal may have; have a good stock food, such as Hess, Arabian or International; give in his feed as per directions on package.

Distemper.

Causes. This disease of the horse is like aggravated catarrh in man, and is brought on from the taking of severe cold, which, when neglected in both, runs into distemper in one and catarrh in the other, which when neglected runs into glanders in one and consumption in the other.

Symptoms. Are a dejected appearance of animal; staring, rough-looking coat; very dull and stupid; often with thick, heavy breathing, and occasionally a slight cough.

Treatment. Take pine tar and pour a small quantity of it on a handful of feathers in an old can or pot, place a covering over the animal's head, including the can under the animal's nose, having emptied a shovel full of live embers in same; smoke well and good for several minutes; then exercise him by fast riding a short distance, so as to bring on coughing, which will open and loosen up the head, and cause the excessive running of the nose. This done, feed stock powders as per directions on package.

Glanders.

Cause. Chronic distemper or cold, with poor care and improper treatment.

Symptoms. The animal has a continual flow at times of an ugly discolored corruption from nostrils, though of no particular or perceptible odor or smell (as a slouchy urchin with a bad cold and a dirty nose). His general appearance is very dejected, with rough staring coat, and animal is in poor, emaciated condition, as a person in the midst of a case of galloping consumption.

Treatment. It is claimed there is no effective

treatment for this awful disease, but I am of the belief that if the animal is very particularly and strictly kept at least three hundred yards away from other stock, to avoid the most sure and possible contagion that exists in this disease, placed in a building and lot that distance at least away and given a chance for his life, with the following treatment, there is a possibility of recovery; with the addition of rich, nourishing food, such as oats, shorts and wheat bran, and some good corn and hay, with about a pound and half of cotton seed meal every day distributed over his feed, and the following tonic, viz: Four (4) ounces of white vitriol (shake) and six (6) ounces of powder digitalis in three quarts of water; tablespoonful doses three times a day for six days, thence twice a day until relieved, will effect a cure. It would do no harm to try, any way, under the above very particular conditions given above. Every precaution should be taken against contagion by burning every particle of litter about his premises as they accumulate, and the walls and fences disinfected regularly with crude carbolic acid.

Lung Fever and Pneumonia.

Causes. Sudden change from very warm to cold (and very cold), accompanied with slow drizzle of rain. If a horse is exposed in such, with a rundown condition of health, or if very warm from fast exercise, he is a fit subject, and very many cases are contracted in this way; myself having owned several, and the leading up to my learning of and the acquiring this treatment, was the loss of a fine imported Clyde horse that contracted, developed and died, en route from Enterprise, Kan., to Bryan,

Texas. He dropped dead in car in yards at Fort Worth as I was switched onto the railroad home track. This loss was the cause of my studying up and getting onto this crack-shot and sure treatment; since which time, though having several of my own and having treated some of my neighbors', free and as a friend, I have never failed in a single instance except one; and she was a suckler, in the last stage of the disease, and had been bled very freely just before (after which there is no earthly chance of saving their life); for the ravages of the disease, when permitted to run until the last stage has been reached (as this case had) are so weakening, and with the addition of the loss of vitality by bleeding, they are left in so weak a condition that, without the very best of nursing, care and nourishments, they can not recuperate sufficient to save them.

Symptoms. When first taken they show signs of a slight chill and will occasionally cough in a somewhat distressing manner, though short. In the next stage they will appear very disinterested and lie around, apparently real sick, but exhibiting no sign of any particular pain, or misery, in any especial part. This is the second stage, and the only time of the disease when they show any inclination to lie down. After the third and last stage has been reached, the animal's jaws become locked, and their whole system becomes very tense and rigid. The animal will move about as if very stiff, with its mouth elevated and head and neck extended; and when standing, will have fore feet slightly spraddled apart and placed somewhat forward, his whole appearance indicating the greatest pain and suffering.

He is also in a very high, hot fever, and if speedy relief is not forthcoming, will not live many hours, most usually dropping dead, as I never heard of one lying down to die (unless the disease was broken and too weak to stand, as in case where was bled); and I have known of several cases belonging to people who could find no relief for them and who didn't know at the time of my treatment.

Treatment. If discovered in the first stage, one dose is sufficient of each of the medicines, after which give stock food in their feed twice for two days and once a day for a week, and in occasional feed through the week. When the second and third stages have been reached, place animal in comfortable and roomy quarters, free from all draughts and exposure, and give twenty drops of tincture of acconite root by securing tongue with one hand and the medicine being in a teaspoon (no water), shove same in mouth as far back on top of tongue as possible, turn spoon over, leaving acconite all in mouth; keeping animal blanketed all the while to induce a sweat. Now leave him to himself for four hours, when return and repeat treatment as before. If necessary, i. e., if animal is not revived, give four doses in this way (particularly, only four, strictly)—no more, and no nearer than four hours together. In a real severe case can give twenty-five drops, the outside limit of dose to be safe. I was eye-witness at one time to the treatment of a case in last stage, by a careless party, who either didn't know the nature of the medicine, or did not care; and who, though I repeatedly warned him of the danger of not observing those rules, persistently gave two strong

doses, and although the first dose broke the disease, and the horse would have recovered in good shape, the inhumane or ignorant fellow poisoned him, and the horse taking a circle, when let loose in barn lot, kept the same until he dropped dead. While there is no danger if my instructions are adhered to (for I have taken the same in three drops at a dose myself and use it in my family for fever in two-drop doses and proves to be the very best of remedies for the same, four hours or six hours apart, and not more than four doses in one case), yet if deviated from there are death-dealing properties in it. Now in the ten or twelve hours after horse has taken last dose of acconite, give the dose of medicine as prescribed herein for bots. Feed well and good, and your animal will be of as much use to you afterwards as he ever was.

As my exposition of science and nature would have been very incomplete, as a means of building up a successful, profitable and prosperous farm home, without this attained and useful knowledge of the horse and his ailments, and the tried, proven and true remedies, derived from a long experience in owning and handling farm stock, and my great love for the horse and desire to always be able to relieve his pain and preserve his most useful life, I am indeed thankful and proud to be able to furnish the precious knowledge, so valuable to man and beast alike. In the completing of the Formula of Knowledge and Instructions, for all of that purpose, for the people of the whole world, a separate and a few words will not be out of place and must be in evi-

dence to make this complete for the other kinds, of farm animals, poultry, etc.

The cow is a very hearty, and free from disease, animal. In their natural state, and only supplied with food as nature produces it, by way of the natural grasses of the open range; and during the time of year, when those grasses have and contain their full nutriment, keep in the pink of condition, if no other feed is given (and if man would bestir himself just a little in the fall of the year, with mower, etc., and with the required amount of those grasses fenced off, and protected as a hay meadow, and cut and stack up in feed racks, easily made and constructed, as follows: Set three stout posts in ground, about five foot high; securely fasten a 15-foot pole, or 6x8 timber, along the top of posts; now dig a trench of 12 inches in depth, about five or six feet from posts on each side, and of same length as timber or ridge pole on top of posts. Now take poles of 12 or 14 feet in length, and placing the lower end in the trench, lean the pole against the ridge pole or timber, along the top of posts, placing one in position, first on one side and then the other, thus dodging the same, and forming a complete receptacle above the ridge pole, with ample capacity of retaining a large amount of the ready mown and cured grass, that if securely packed in the same, and rounded up nicely, or comb-like, in order to successfully and properly shed the rains; will keep and retain its nutriment and life sustaining properties, all during the winter, when the dead grasses on the open range are void of all nutriment, and life sustaining properties; and when the cows in great numbers depend-

ing on same for food, get in a very poor and low condition of vitality, and many die of actual starvation; thus perpetrating great losses, to the owners; and much, most manifest, suffering among the poor, dependent farm animals, who if the above simple and easy and cheap rules were observed, they would have ample provision made for their comfort and support through the hard, trying wintry season, and at very nominal and low cost. Another still cheaper and more available method of thus preserving this food, grown and provided by nature, is to sink the end of a 14 or 16-foot pole two feet in the earth, securely tamping and making firm the same, and erecting the same in a perfect vertical form; now the mown and cured grass can be raked and by means of the great sweep rake, or drag, conveyed in great quantities to the perpendicularly erected pole, and firmly packed in a semi-circle around the same, to the width of from 10 to 14 feet in diameter at the base and gradually sloping up to a point at the top of pole, thus making it self-preserving from effects of falling weather. Now when the nutritious food supply is no longer available on the open range, the cow can be afforded free access to this stored supply of feed, and will liberally attend to her own wants, thus preserving life and comfort, to such a degree that they will unmistakably keep and be in good condition the winter through, a conserved capital, and a source of profit to their owners), while if the cow is kept and used, fed and utilized for dairy purposes, they are sometimes, through overeating of highly concentrated and strong foods, subject to attacks of indigestion that culminate in disastrous and

fatal results. When such is evident, a judicious use of either or any of the many proven successful medical and tonical stock powders or food now manufactured and on the market, will effect a complete cure and restoration of the animal. If the animal is so badly affected that they will not eat same mixed with their feed, it can be used as a drench in water and poured into their mouths and thus administered in a successful manner until such time as they will eat the same mixed with their food. The author has never seen a failure of this proving most satisfactory, while without it many valuable animals have been lost. Hogs the same. The author has in his experience in the past, when stock powders were not available, taken one-half ounce (tablespoonful) of aloes and the same of flour of sulphur, as a dose, administered to suffering cows, with the desired results, preserving and completely relieving and restoring the cow so affected. Now all farm animals, poultry, etc., are subject to an inactive and dormant system, and liver, through overeating, indigestion, and the want of plenty of pure drinking water, always easy of access to one and all; a little attention given by way of tonical stock powders mixed in their feed occasionally, and plenty of pure drinking water, easy of access at any and all times, and an ample supply of wholesome food, will insure and guarantee to the farmer at all times a well grown, healthy, fat, and of the finest quality of their particular kind of farm animal or poultry. This has all been witnessed, tried, and proven, by the author, who now is giving it to the people of all the world, as a sure means of success, in all of those lines of

agriculture, and the maintaining of a beautiful, self-sustaining, profitable and prosperous farm home, surrounded by successfully grown crops, and beautiful, fat and thrifty farm animals, and poultry of all kinds, which all go to the supplying and furnishing to man all the comforts and luxuries of the civilized world, or civilization.

The magnanimous purpose of the arduous and deep study of science and nature by the inventor and author, and thus solving of many of the hard problems of life that stood out as gigantic and seemingly insurmountable obstacles in the way of man's comfort and happy existence, is most manifest to be to the greatest furtherance and advancement of all agricultural pursuits, to the means of the people being made self-sustaining and prosperous; self-asserting, loyal and independent, high-spirited specimens of noble citizenship of the country of their homes; by his removing of those obstacles that made the occupation of farming very unprofitable and altogether undesirable, and unattractive, to the young bloods, of noble sires, and ancestry, who no sooner than the opportunity, afforded by age, etc., are only too much elated to avail themselves of the same, and so rid themselves of the hitherto proven unremunerative business, with its life-sapping, unrelenting toil and duties, in trying to subdue and make produce the hard, obdurate soil; and the coping with the many other—impossible of results—of the farm life, heretofore, in many instances, and more especially in the heavy, strong, incomplete soils of our rich prairie lands; and with eyes set on what to them appears as a bright, alluring and dazzling

beacon of future prosperity, in wait for them in the large cities, with their gliter of great wealth, riches, and grandeur; of promised ease, luxury, and pleasures; hie themselves hither, with all haste; only to, —when they arrive,—find themselves engulfed in a confusing maelstrom mass of seething, working, and ever moving humanity, mystifying, and addling, in the extreme, to the newly arrived seekers of this world's comforts, and happiness; and who now for the first time in their lives most fully realize their real littleness, and possible insignificance, in this great world of business rush and progress; and who often in their restrospective moods wish they were out of, and again enjoying the freedom of nature, with its health-giving, pure atmosphere, and great roomy surroundings, where they could feel with great satisfaction and triumph, as though they were indeed the true lords of creation; but who upon reflection of the impossibility, of the real hard side of life from which they have just emerged, still stay on, to many destructive results, of both soul and body; while many of those high born, and of noble strain, are compelled to lower their well merited dignity to the menial occupations of sawyers of wood and drawers of water, and such servitude as their more fortunate brother of money demands of them. Oh! sad, sad, it is, indeed. And in high hopes of his most persistent and persevering efforts, at results; of being the means of making home farm life the most productive of self-sustaining, happy, and easily profitable and prosperous results; the which will most assuredly, and without any shadow of a doubt, make the occupation of farming now, as a

business proposition, a most popular, much sought for, and with such highly attractive features as a comfortable and lucrative position, will turn the tide of immigration back from farm to city, to from city to farm; and so, not only redeem the lost dignity of nobility driven from the farm by unavoidable adversity, but also bring others into it who have as yet not enjoyed the freedom and great exultancy and independence of successful farm life and business. Oh, the great glory of such a triumph! When I contemplate the immensity of it, in the making of so many multitudes of the people, in all parts of the world, self-sustaining, independent, noble and happy; and of the ability of it to preserve the credit and build up the wealth and prosperity of all nations, I feel like self-exultation with great pride and elation over the knowing that this work of knowledge will contain correct and only accurate knowledge of climates and soils, their true effects on all animal and plant life, both for beneficial and injurious purposes; with its true exposition and defining of science and nature, man can now understand his own, and all animal nature, soils, and all farm crop plant life nature; the true nature and causes of the invasion and destructiveness of life and crops, by disease and insects, and sure preventives and effective remedies; cheap, sure and effective plans of drainage for the most difficult of lands; to the extermination and complete and entire stamping out of most annoying and disease-producing insects; and that sure, quick, death-dealing trouble, Charbon; and make those lands the most productive and richest of farm crop lands; and many other good things that will now

easily make all agriculture, as a business, the most successful and profitable of all others; I feel that I have accomplished a great life work, and am fully aware that as an inventor I have fully done my part well.

“Knowledge is power.” The three words in our language that prove the truth of their meaning with more forcefulness of character and effectiveness than all others. Let us define the situation by just one small, but heart-rending, illustration, if we were eye-witnesses of it in reality: Behold that most loving, protecting and affectionate father, immensely rich in money, lands and property. There hovering over and around his sweet, lovable, angelic dispositioned little daughter, just sixteen years of age, a known to be fatal and quick dealing death disease, fastening its fearful, and suffering producing clutches, daily closer and closer,—with plainly visible disastrous effects,—around this muchly beloved being’s vitals; the parent’s heart is torn and bleeding with the knowing and witnessing of the same. He is making every effort that money and influence can produce, by way of travel, and attention,—of his own, and the most renowned and eminent medical skill for her rescue from those death dealing clutches, and the restoration of her to his arms, saved and health. Oh, the life-sapping torture of such anguish! I have seen it in fathers before now. Let a person possessed with the requisite knowledge of such diseases come in; at a glance he takes in the whole situation; knows the cause, sees the un-failing symptoms; prescribes what he is fully aware will go directly to the seat of the trouble. With un-

failing accuracy it works its power upon the enemy, and slowly, but most assuredly, it unwinds those death dealing clutches from about and around the life of this beautiful being; and she is restored in all of her usual health and loveliness to her now most rejoiced and relieved father, saved! Save through knowledge, which without any inordinary efforts, more than just making use of the simple remedies that knowledge had revealed to him,—through the study of the same—would reach the seat of the trouble, and react upon it, to the healing and restoration of the patient. Oh, great is knowledge! In the gaining of this knowledge, that will now make it possible for every man in all parts of the world to become a self-sustaining, independent citizen, a credit to his country, and the possessor of, and owner of, a happy household, a prosperous, profitable farm home. I have procured the requisite knowledge; the world contains the land, and in abundance; you have the money. Now by the wise use of this money in procuring, printing and putting in possession of those people this knowledge, and through wise systems of agencies and proper management, you can act the good Samaritan, and at the same time derive great gain therefrom for self. We have the feast prepared. Do not call on the rich and well-to-do; but go ye out into the highways and bring in the poor and needy that will attend; and so shall my banquet have the required attendance. Where are those public highways? Where is the poor father with large family and of brawn and muscle, who in his old home in foreign lands, which crowded with greater population than land to support? The poor, hard-working,

energetic and industrious, and for the most, intelligent people, save and skimp on every point, until thinking enough has been hoarded up to convey them to the new country, of broad acres, and such great possibilities and opportunities, sets foot on these shores, landing, most generally, in some large city with altogether different surroundings to his expectations; confused, and not anything being intelligible to him, he knows not which way to turn, or do, for the accomplishing of what he left home to do, and gain, and most usually lodges there, and remains, for lack of the knowledge and means to better his condition, often becoming in want, and suffering the effects of the most squalid poverty, and becoming a poor, cringing object of beggary and dependent on the dispensing to him the daily crust by the many charitable institutions of those large cities; barely, and—just being enabled to do so—keeping soul and body together; in his want of a shelter and clothing, wanders the streets, vagabond-like. They are there in thousands, and tens of thousands; a living and crying shame, and disgrace to any country, commonwealth, or nation, in whose territory they may be found.

Now, fellow citizens, with the land, and the money, and this complete form of knowledge as to how to make profitable and prosperous farm homes, it is on your shoulders; it only remains for you to decide those unfortunate fellow-men's fate. Shall they now, with all of this great feast of prepared facilities, as a banquet, be gathered and brought in as per command; and be permitted to partake bountifully thereof, and so be enabled by their industry to make

useful, self-sustaining citizens, helping to build up the wealth and prosperity of the country in which they are, and of which they are citizens,—as much so as you or I; or shall they be permitted to remain and thus have to continue time without end, a living toudery of shame against the country on whose shores they are thus found; when now all those lands of possible and positive agriculture, will be crying out in their desolation and want of this very class of brawn and sinew, and in their need of just such labor; which when produced, and rightly placed thereon; will bloom out, in the most bountiful yields, of all the great crops of nutriment and sustenance to animal and man?

To impress the subject of charbon more fully, will say again to sink a well or pipe in the center of every water hole or sink on the land and there will never be no accumulation of water in the same to stand and breed charbon parasites and other disease-creating poisonous insects. Lower the top of pipe or well curb below surface of bottom of pond by digging a square three-foot hole 18 inches deep, and allow top of pipe to be 10 inches up from bottom of hole. Now screen securely the top of each pipe or curb and lay neatly over the hole pieces of 2x12 lumber as a cover for protection of stock and from drifting soil and sand.

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