

THE INFLUENCE OF HEREDITY.

That there is in each department of life a tendency to reproduce its own marked peculiarities is well known. There is scarcely an intelligent farmer who does not believe the axiom that "like begets like," immediately or remotely. In the animals they rear for money, or for that pleasure which is only another form of profit, breeders see constantly the evidence of the power of that law. Even in the seeming failures that have led the disappointed to declare that breeding is a lottery, wiser ones see the operation of hereditary influences. By skillful management these influences have been made to do much to add to the creature comfort of man; but, because of a general neglect of the aid they offer, they have done very little directly for the elevation of man himself. By his skill of mating animals having desirable characteristics, man has developed the obese porker of to-day from the gaunt and grizzly wild boar. The lank, flat-ribbed wild ox of vast horns and viciousness has been changed into the substantial bullock of juicy roasts and much docility. The shaggy pony of the crags, the hardy courser of the desert, and the sleek horse of fertile plains have been molded by man's artful use of nature's forces into the spirited flying racer, the sturdy hack, and the massive draft horse of surpassing strength and gentleness. In mating birds the breeder's art has produced results wonderful in the variety of form and size and color they display. Many of the established breeds of the age exhibit no trace of their origin.

No man can show the limit of the changes the breeder can make by directing the mating of animals under his control. But his power does not end with the mating, for, while the influence of heredity does much to form and to govern the development and action of the animal, that development and action will be greatly modified by the conditions surrounding the animal. Breeding, which is another name for hereditary influence, may give to the ox a tendency to grow big, and fat, and gentle. With abundant food and water he will become the embodiment of lordly ease and prosperous content; but turn away the well-bred calf to "rustle" for himself upon bleak hills or sparsely-grassed plains and he will become a tough, skinny and loose-jointed beast, having vast capacity for consuming food and making little return therefor. Send the corpulent and lazy porker of high degree from his well-filled trough, give to him the joys of freedom and the choice between starvation and working for his subsistence, and he will ere long be as gaunt and fierce as were his distant progenitors. Yet the animal having in his veins good blood retains the power and the disposition to respond, far more satisfactorily than the ill-bred can, to good treatment.

The life of every child is a stream made up of converging currents of hereditary influences. They come almost of necessity where so many races mingle as in America, from many different sources. Some may be turbid from dirt, torn from the soil of base passions to cloud the new current; some may become polluted by long turnings in the swamps of sin, and shame, and crime, to poison all with which they mingle; and others may be pure, sparkling streams flowing brightly through the world, making fertile every field through which they pass, refreshing with their own pure life every drooping plant they touch by the way, sweetening and beautifying every scene in which they appear. Whence these streams come and what they are few have cared to inquire in time and with purpose to prevent the mingling of the impure in the new currents to be created. The fancy of the mother that is to be caught by the face and form of some playmate, and, if so much of his unformed character as appears to view will satisfy the easy requirements of the Mrs. Grundy of her set, she is accepted, and they marry. Neither has she asked whether the blood in the veins of the other is that of beggars, of saints, of soundrels. Neither has given a thought to the influence their mating will have upon the world; neither has questioned whether the inherent tendencies they bring together will give to the world demons or angels. Parents do little better in this respect than they do for themselves. Almost the only question asked about the man is, "Has he any money?" If he have enough they are content. By the masses not even so much as that is demanded. The young are allowed to follow the fleeting fancy of the moment, without a single restraining thought of the tremendous importance to the human race of the contract they make. How shall they be expected to consider the effect of influences of the existence of which they have never been told?

Carefully prepared, beautifully illustrated, and expensive books and periodicals are published in great number to teach the breeder how to turn to account the forces of heredity; but little or nothing is said or done to teach the world how to apply the same great forces to the elevation of humanity, physically, intellectually or morally. Many are the physical, mental and moral weaknesses and diseases resulting from or perpetuated by ignorance or disregard of the laws of hereditary influence. Is it greatly to the honor of this age that man studies more thoroughly the breeding and character of the animals he proposes coupling than those of the persons whom the unguided fancy of his children lead them to wed? Breeders so manage their stock as to avoid reproducing defects, and to secure desirable "points." They assert that the skillful breeder can, in a few generations, develop almost any desired type of animal. Shall principles so long and successfully applied to the improvement of the lower animals remain unused for the development of their master? Shall not at least as much be done for the improvement of mankind by the study, development, and application of the laws of heredity to that purpose as has been done by their aid for the improvement of the

beasts of the field? Is man less worth the effort than they?

Most parents love their children dearly, and intensely desire their advancement in all that is good. Heretofore the world has been content to accept children as chance or unguided impulse created them—often sadly handicapped by inherent evil tendencies they could not successfully resist—and then to surround those children by such favorable conditions, educational or other, as were within the means of the parents. Teach the world the truth about heredity and it will quickly apply this great power for the production of men and women superior to those of to-day, and in due time will demand that the same laws shall be observed to prevent the perpetuation of the evil classes. Hereditary influences will yet become the study of, and their proper application the great aim of man. The momentous truths have long been unheeded by most races, but they should be proclaimed to the world until they shall have electrified and aroused all mankind, and the rapid march of progress shall have been everywhere begun. By making universal the knowledge of the operation of these powerful influences that control to a very great extent the life of every being, much will be done. By inducing general observance of the laws of heredity what may not be accomplished? The physical powers may be so strengthened and developed that sickness, deformity and insanity will be as rare as they are now common. The moral character may be so purified and fortified that temptation will no longer tempt, and the tide of dishonesty that threatens to overwhelm the nations will be turned aside harmless. The mental powers may develop until each succeeding generation be composed of intellectual giants, towering high above those from whom they shall have sprung. Then artists with brush, or pen, or chisel, or sound will be in truth born, not made—born with talents so enlarged and intensified that they shall discern beauty and truth more clearly than they were ever before seen, and shall interpret them aright to the world. Since civilized man was a savage brute, thousands of generations ago, he has made but sorry progress in the march of improvement. Through natural selection that was not far removed from chance he has gained more than by conscious design. All this weary time he has been climbing up two steps and been slipping back one. Frequently he has apparently lost suddenly, by the introduction of destructive blood elements, all he has gained by fortuitous circumstance.

Is not the teaching of truths so pregnant with the good of the highest kind a mission worthy of the noblest minds? Can a life be devoted to a more beneficent cause than that of showing man so to use this natural force at his command that he will quickly elevate all to a degree of culture now unknown an even unimagined? Is it not better that a man be born aright at first than that he be born again? Is there not in these truths a gospel which, if studied as earnestly and urged as zealously as the grand truths taught by Christ have been studied and urged, will at least hasten greatly the regeneration of mankind?—*E. W. Perry, in the Current.*

It Is Girl Nature.

Now the propensity for wading which is deeply implanted in the female bosom is inexplicable. Unless a girl has the influenza or a bun she can not resist the temptation to paddle about in the salt water and get her clothing uncomfortably wet. This is a subject full of interest to me from the casting aside of the shoes and stockings to their resumption. It is a fact pretty generally known in male circles that ladies prefer sitting on the ground when pulling on and off their stockings to occupying a chair or bench. But having my doubts as to the inflexibility of this rule I had determined to convince myself by experiment. After the setting of my traps—to wit: the benches—I had not long to wait. A bevy of young ladies, one or two of whom I recognized, came trooping down the beach, chatting and laughing merrily. They evidently wondered who had been kind enough to place the benches there for their accommodation, took possession of them at once gleefully, confessed that they were just too delightful for anything, and seemed perfectly and unreservedly happy. I was rejoiced at having disproved a moldy theory, but alas, my satisfaction was short-lived. When my guests made up their minds that it was time to wade they sprang from the benches, sat on the beach, and tugged away at shoes and stockings in the old fashion. The following day, resolving to give my herald bathman a quantity of broken bottles, empty oyster cans, and rubbish of various kinds along the beach and sat under my umbrella and watched. The girls came down about the same hour, seemed a little dismayed at first, but rallying set to work industriously, and soon had a clear space upon which they squatted, not taking the least notice of the benches this time. Then I put up my umbrella and moved sadly away. Eye must have sat her fair form down in the garden mold of Eden adjusting her first garment from the historic fig-tree, and left the habit as an inheritance to her daughters for all time.—*Santa Barbara (Cal.) Letter.*

A Serious Mistake.

Minister (to tailor)—"You have cut the vest wrong, Mr. Misfit. I wanted it to button close about the neck. This is the style that any gentleman wears."
Mr. Misfit—"Yes; it's my mistake. You wanted a minister's vest, and I've gone and cut a gentleman's vest. But I guess I can fix it."—*New York Sun.*

Carl Pretzel's Philosophy.

Firtne vas always ready to go to a party. You always saw her mit her Sunday close on.
Tide dond got any time to wait on der female vimmins.
"Well, feller dot dishblars some abundance of cheeks vas hafe a personal blemish."—*Carl Pretzel's Weekly.*

Above the Clouds.

One mountain I particularly desired to climb. It is a splendid mass of rock, treeless, high and promising an outlook of 30,000 or 40,000 miles from its summit. Viewed from our camp, it doesn't look so bad. With me, to wish is to will, and to will is to do some easy things. I wished to climb the mountain and I climbed it. I don't know how to spell it, but I did it. A smooth looking mountain, with terraces of low green bushes and easy ledges of rock looks well enough to a blind man across the lake, but when you essay to slide it under your feet, it becomes rougher than a pig's back. I stepped on firm looking logs that were rotten as a politician's promises. I was precipitated down great pits so deep that I could look up and see the stars, just after reaching bottom. I got lost in briar patches that shred my raiment from me in great shreds from Shredville, and lacerated my inmost feelings. I lost my hat. I dropped my alpenstock down a hole that extended 400 feet up inside a mountain in China. I broke my knife cutting another stick. I took off my coat and laid it on the inaccessible top of an unapproachable rock, intending to get it as I came down, and now, the entire United States Geographical Commission couldn't find that rock in a mill on years. I pulled the sole off one boot and tore the upper off the other. I ate a handful of strange red berries before learning that they were poison. I stirred up a nest of hornets in the dead thicket of a fallen pine tree, and heaven and earth came together in six or seven places at the same time before I could climb a perpendicular cliff eighty feet high to get away from them. But I did it. When I saw the boss hornet disappear within his workshop a minute and then come out with an arm full of scythe stones, which he began distributing to the strikers, I could have climbed the north pole.

I got along a little faster after this interview with the hornets. The view from the mountain top repaid me. Thirteen Pond was a gem, a dainty sea of crystal, laughing in its setting of mountain, woodland, cliff and meadow. Bennett's farm and the Van Dusen place were emerald stretches of fertility and Reed's Maple Cottage and out tents glittered like snow drifts in the meadows. It was all so beautiful I stayed upon the mountain top to see the sunset. It set on time, as usual, with a fine display of meteorological scenic effects. Then it occurred to me that I had to go down that mountain in the deepening shadows of the gloaming. I emitted one of the groans for which I am justly famous—you must have heard that groan in Brooklyn—and prepared to descend. As I slid down the first incline, a little rush of 200 feet over an abraded surface of garnet rock, I brought up against a fine old stump, about half petrified, and noticed a bear, full weight, all wool, sound in wind, limb and condition, walk around the stump and look at me. My heart bounded with a joyous sense of great relief. "Major Ursus?" I said, and the bear bowed. "Major," I said, "I am glad to meet you. I have been up in the mountain to see the sun set, although I could see it set from the meadow. I am now going down. I don't know just where, but I have a presentment that I am going down. If you have not yet been to tea, would you be kind enough to eat me?" "No," said the bear, coldly, "I never eat fools."

If there's anything I do hate, it's a bear. Well, come up, before the sunset season is over. It's just the kind of a place you'd like, and you are just as safe in the woods as you are at home. I was going to tell about a big trout I caught but I see I haven't time.—*Burdette, in Brooklyn Eagle.*

Thunder-Storms.

From certain meteorological statistics recently published in Germany we learn that thunder-storms in that country have, during the last thirty years, been steadily increasing, both in frequency and severity. The number of deaths per annum from lightning has increased in a far greater ratio than that of the increase of population. In the present state of our knowledge of the whole subject of atmospheric electricity, the cause of the phenomena of thunder-storms is confessedly obscure. It is, however, very possible that some light would be thrown upon the question by a comparative study of the frequency and severity of storms during a lengthened period and over a wide geographical area. The German savants incline to the opinion that the increase is to be attributed to the enormously increased production of smoke and steam which has taken place during the last three decades. But although we may admit this to be to some extent a probable *vera causa*, yet when we consider the very local character of thunder-storms, we should naturally expect to find that it would follow that the neighborhoods of large cities, and especially of manufacturing districts, would suffer the most severely. But the statistics referred to show distinctly that the very reverse is the case. The number of storms attended by fatal results from lightning is far larger in the agricultural districts than in the towns. Upon the other hand, we ought to take into consideration the protective action of lightning conductors, with which the prominent buildings in the towns of Germany are well provided. *Scientific American.*

It Could Have Been Done For Less.
A well-known lawyer once came into a room where Judge Lake and several others were seated. He was not in a good temper and they asked him what the matter was.
"Well, I defended a fellow for murder. He was convicted. I took him to the Supreme Court, back again to the Supreme Court, and the Supreme Court confirmed the judgment and gave him ten years. I charged him \$3,000. Lake, do you think that was too much?"
"Well," said Judge Lake, "I think he might have been convicted for less."—*San Francisco Chronicle.*

THE POET SAXE.

Man Who Has Been Sorely Afflicted—His Quiet Life in the City of Albany—His Favorite Authors.

In a large and luxuriously furnished apartment in a four-story brown-stone house on State street, in the City of Albany, and almost within a stone's throw of the great capital, sits or walks, or reclines throughout the day a man 70 years of age. With hair that is silvery white, a full beard that is gray white, a form that is bent and emaciated, a step that is slow and tottering, and a cheek that is pallid and shrunken—his blue eyes yet full and lustrous lone indicate the strength and pride of other days. The man is John Godfrey Saxe, the poet. It is only a few years since the verses of Saxe were eagerly accepted by the leading periodicals and his services as a lecturer were everywhere popular. In his day he was a bright member of many a literary gathering, being known personally to all of the most prominent of contemporary poets and prose writers. He was the nation's wit and humorist, whose delicious rhymes brought to himself fame and a competence and to many a household the cheerful smile or hearty laugh. Even across the sea he was known as "the Thomas Hood of America." . . . The beginning of the end was the poet's dreadful experience and remarkable escape from a revolting death in the western railway disaster in the spring of 1875, while on his return to Brooklyn at the conclusion of a lecture tour in the south. The "leaping-car" in which he had a berth was thrown down a steep embankment and he was rescued therefrom by the nearest chance. As he lay wedged between the broken timbers, stunned and bruised, a fellow-passenger who had escaped bethought him of a sum of money which he had left behind him. On returning to the car he stumbled upon the insensible poet. The latter was thereby discovered and rescued from what would inevitably have been death and destruction by fire as he slept in which he was found, after a brief interval following his rescue, became a mass of seething flame. His flesh was bruised, but no bones were broken. Outwardly he appeared to have escaped with slight bodily injuries. Not so. A grievous hurt was here—deep, insidious, and lasting, though at the time it was unseen and unfelt. The poet's nerve system had received a shock from which it never allied. Exhaustion set in slowly but surely the consequent weakness overgrew and undermined his whole physical being. He began to experience a greater degree of bodily and mental fatigue than had been usual with him. Worst of all was his depressing influence on his exuberant spirits, which became more and more subdued, until at last his mind had lost much of its wonted buoyancy. Other afflictions were yet in store. During the year just prior to that of the railway accident he had interred his daughter Laura in Gran-wood cemetery. Five years later death again invaded his Brooklyn home, the second victim being his daughter Sarah. Barely another year had elapsed when the mother of his children, a noble woman, was put tenderly away in dreamless rest. Early in the year of 1881 the lark reaper for the fourth time laid his rick sick at his door, this time cutting down Hattie, the poet's only remaining daughter. He had yet two sons living in Albany. Turning his mournful steps thither in June, 1881, he sought rest and refuge from his sorrows with his eldest son, John Theodore. Once again the inexorable hand of fate was laid heavily upon him; death snatched away the son ere the father had been a month beneath the hospitable roof. The son's wife had died nine weeks before. Here was a daughter and a son's wife and the son himself—all three cut down within the brief period of two months. Thus for the second time was broken up the poet's home. Then he turned to his youngest son and only remaining child, Charles Z., with whom he has since lived, and who with filial tenderness and solicitude ministers to the poet's simple daily wants.

The old poet is now much changed in form and feature, being merely a shadow of his former self. During the first three years of his residence in Albany he spent some hours each pleasant day in strolling about the beautiful park near by, or tranquilly sitting there in a shady arbor, watching the children at their play. But during the past two years no public eye has seen him, for in that long interval he has of his own choice been carefully secluded in his room. He neither rides nor walks abroad. The apartment in which he spends his melancholy days consists of a suite of three rooms, located in the rear end of the house on the third floor, and overlooking the noble Hudson to the south. Here by a window he whiles away much of his time in watching the busy river craft and in contemplating the picturesque landscape. Of street attire he no longer has a need; in dressing-gown and slippers he paces the floor with slow and trembling steps, seldom or never going beyond the confines of his own rooms. He prefers to have perfect quiet about him, and oftentimes dislikes to be disturbed even by a member of his own family. It is a long time since he last consented to receive a stranger or even a friend or acquaintance of former days.
"I can not bear," he said with pathos, "to be forcibly reminded of what I once was—of the days of my hope and strength, when the world had charms that now are dead to me; before sickness had deprived me of my health, and death had robbed me of my loved ones."
In 1881, on his first coming to Albany, the eminent physicians whom his family consulted in his behalf, predicted that he would not survive for two years longer. He goes to bed between the hours of 9 and 10 o'clock in the evening and rises at about 6:30 in the morning. He complains much of insomnia, and during the day is often very restless, suffering from neuralgia in the head. When not sitting in an

easy chair or moving leisurely about his room he reclines upon a couch. He eats often, but very sparingly, and partakes of the plainest food, indigestion being one of his principal bodily ills. Of his valet, a middle-aged colored man who by reason of prior service with eminent people at Washington and other places is more than ordinarily intelligent and entertaining, the poet is very fond, chatting with him now and again with a more than usual degree of interest and animation. Until quite recently he devoted a good share of his time to a perusal of the standard poets and the leading magazines, those of the latter, to whose pages he was once a valued contributor, being still sent him regularly and unsolicited by the publishers thereof, in kindly remembrance of past services. For some years he has not read the daily papers, and evinces little or no interest in current events.

"It pains me," he said, "to meet with the details of so much crime and so many casualties."
Indeed, he reads comparatively little of any kind now—occasionally a page or two maybe, of one of his favorite prose authors. That mainly consists of Hawthorne, Dickens and Thackeray, judiciously selecting therefrom matter of cheerful tone and subject. When undisturbed he is much given to musing, but at times will converse willingly and fluently, displaying thereby a power of memory that, in view of his feeble condition is quite unlooked-for, recently surprising his son not a little by repeating verbatim one of Charles Lamb's longest essays. His thoughts often revert to his irreparable loss of wife and children, speaking of each tenderly and regretfully and manifesting a keen interest in the proper care of their graves—ever dwelling on the domestic afflictions which have broken his heart and enveloped his once brilliant intellect in a brooding and incurable melancholy.—*Brooklyn Magazine.*

EDUCATING SERVANTS.

How They Can Be Taught Habits of Neatness.

In most of the new houses it is noticeable that the servants' rooms are much more attractive and better arranged than the rooms or servants' quarters in old houses. Once a corner of the unfinished attic was thought sufficiently appropriate for the servant, and there was no inducement for even a tidy maid to take pride in her domain and have pleasure in making it neat and pleasant. Now, the rooms are well painted, prettily papered, furnished with a closet, and made as homelike as possible. If the servants are disorderly the housekeeper is apt to protest that she is not responsible for the results in the servants' own apartments, for she has furnished pretty rooms and can not be expected to detect their possessors in untidiness. Although the result may be the necessity of expensive renovation upon each change of occupant, the mistress has no thought of educating the new servants to greater neatness. A writer in *Good Housekeeping* has made some excellent suggestions upon the subject. She says: "Don't forget each day to allow a servant some little time to make and keep order in her room. Insist from the first on the extreme care of the bed. Never allow soiled clothing to be hung up in a bedroom till a convenient time comes for washing it. Tell the girl to keep her door open when she is out of the room. These rules are excellent, and if the mistress is able to control her servant, as she should, her directions will be educative and of great value upon the character of the servant. Many mistresses will be often discouraged. A lady who received a bright Canadian-French girl, who was accustomed to field-work instead of house-work, was surprised to find the girl's bed had not been used, after a week had passed. Upon questioning she found that the girl had slept upon the floor each night, because she had never slept upon a bed. The educating of such servants to habits of personal neatness is most difficult. Some English housekeepers advertise for servants with "no bangs," and many American housekeepers are obliged to make rules upon dress, some having dresses and aprons made for their servants. The insisting upon cleanliness and order of the servants' apartments is one of the most delicate tasks of the mistress, but its necessity is imperative for the comfort of the household. If the girl is bright she unconsciously becomes more and more refined by simple association with a cultivated family, and when she begins to imitate the young ladies of the family a natural course of education will progress rapidly.—*Boston Journal.*

Wait for Recess.

Congress really accomplished very little that is of benefit to the country. The principal reason for this is that there are so many men in Congress who do not go there with the intention of doing any work. They are very much like a little girl who was questioned by a lady friend of the family as to how she liked school.
"Emma, what do you do in school? Do you learn to write?"
Emma shakes her head.
"Do you read?"
"Another shake."
"Do you cipher?"
"No, ma'am."
"What do you do?"
"Wait for recess."
Congress is full of men who do nothing but wait for recess.—*Texas Siftings.*

Not Her First Appearance.

"Lawyer (to timid young woman).—Have you ever appeared as witness in a suit before?"
"Young woman (blushing).—Y-yes, sir, of course."
"Lawyer.—Please state to the jury what suit it was."
"Young woman (with more confidence).—It was a nun's veiling, shirred down the front and trimmed with a lovely blue, with hat to match."
Judge (rapping violently).—"Order in the court!"—*New York Sun.*

A SUBTERRANEAN MYSTERY.

The Theories Regarding the Overflowing Well at Belle Plaine, Iowa.

A Des Moines correspondent of the *Chicago Times* writes: So far but little has been said to account for the phenomenon of the great flowing well at Belle Plaine. A state university professor has visited the well, and has hazarded the guess that it is fed from Lake Benton, Minnesota. This is ingenious, and has some basis of probability. But it is just as well to consider some physical facts in connection with the well.

Take a pack of playing-cards and push them so that an edge of each will lap past its upper fellow. This will illustrate the rock formations of Iowa when looking west from any point in northwest Iowa. The lower card represents the Trenton limestone, while half a dozen cards above it can stand for the lead-bearing and Niagara series. Cedar Rapids rests well toward the top of the latter group, while Belle Plaine, thirty-five miles west, probably lies on the thin layer of Devonian rock, which is scantily exposed in Buchanan county. It can be stated as a fact that the Niagara rocks are full of fissures and small caverns. Whether this be true of the rocks underlying Belle Plaine can only be inferred on the action of the various artesian well at that place, but this would seem to be competent evidence that the cavernous condition of the rocks still prevails at that place.

According to the chart of the Iowa railway commissioners Belle Plaine station is 84 feet above the ocean level. The surface surroundings of the place do not warrant the hypothesis that the source of supply of its great well is near at hand. But by reference again to the railway commissioners' chart it will be seen that the Iowa river, which runs not far from Belle Plaine, has a long and tortuous course nearly to the north boundary of the state, and the Milwaukee railway station at Britz, where the Iowa slips over the prairie, stands in altitude 359 feet higher than Belle Plaine.

But the Belle Plaine well is said to be 125 feet deep. Probably, if it could be piped, the water would rise two hundred feet above the bottom of the well. Now, if the well is fed from Lake Benton, Minnesota, as the Iowa City scientist assumes, according to a well-known law of hydrostatics the Belle Plaine people would have more worry even than now, for Spirit Lake, Storm Lake, and Lake Benton all lie approximately 1,500 feet above sea level, or, say 750 feet above the bottom of the Belle Plaine spouter. Hence, instead of merely gushing out, the water would have a geyser-shoot upward of hundreds of feet. The Iowa City theory does not work any better than the cone that went into the well Sunday.

The only tenable theory in the light of present facts is that the Belle Plaine well is fed from a leak in the Iowa river—possibly from the Cedar for that matter. And if it is water from the Iowa that has found a long fissure affording a subterranean waterway under Belle Plaine it has found that fissure somewhere in Marshall county, which satisfies the conditions of the case. For the Iowa river has a fall of about 85 feet between Marshalltown and Belle Plaine. Add this 85 feet as a pressure-head and it will, after allowing for waste by leakage and friction, supply the power that pushes the water into Belle Plaine streets. But if it is the Cedar that is leaking at such a rate through the well the weak spot is somewhere above Charles City, say about the state line.

It might be urged that the leakage from showers conveyed through the soil would answer the conditions, and in connection it would be said that the gravel beds along Iowa streams, all of which lie above the Belle Plaine well, would afford the great supply spurting out. But if this were the true line of the origin of the well would be the same considered scientifically.

It is but fair to mention while discussing the latter view that southwest Wisconsin affords some wonderful springs. A single spring runs a flouring-mill at Springville, Wis., while six miles away in early times another noble fountain used to run a saw-mill. These springs burst out within three hundred feet of the highest altitude between the Mississippi and Wisconsin rivers, and the watershed for their supply is very narrow. Fayette county, Iowa, affords some wonderful springs with quite as limited areas of supply as those in Wisconsin. All these springs certainly depend on the melted snow and rains, but they bubble gayly all the year around, with little variation in the amount of discharge. These springs justify the view that the water runs through rock fissures, and so the view is here fully maintained that the bed of the Iowa river needs patching in Marshall county, and when patched the Belle Plaine folks will get their well under control.

Signs From the Sun.

Signs of Rain, from the Sun.—Sun rising dim or watery; rising red with blackish beams mixed along with its rays; rising in a misty or muddy color; rising red and turning blackish; setting under a thick cloud; setting with a red sky in the east. Sudden rains never last long; but when the air grows thick by degrees, and the sun, moon and stars shine dimmer and dimmer, then it is likely to rain six hours usually.

Signs of Wind, from the Sun.—Sun rising pale and setting red, with an iris; rising large in surface; rising with a red sky in the north; setting of a blood color; setting pale, with one or more dark circles, or accompanied with red streaks, seeming concave or hollow; seeming divided, great storms; pannela or mock suns never appear but they are followed by tempest.

Signs of Fair Weather, from the Sun.—Sun rising clear, having set clear the night before; rising while the clouds about him are driving to the west; rising with an iris about him, and that iris wearing away equally on all sides, then expect fair and settled weather; rising clear and not hot; setting in red clouds, according to the old observation:

The evening red and morning gray, Is the sure sign of a fair day.