

Brown Bread.

Nothing was ever got together in the platform of a political party that meant more or panned out less than a boy's first attempt at gardening.

It cost a man ten dollars and a sore nose to express an opinion at Jackson, Mich., the other day. He inferred that another man was a liar and said so.

What a blessed thing is knowledge. Without it you would never know that pantaloons are derived from a couple of Greek words that mean to rule the roost.

Philosophy stutters and grows weak in the knees when it tries to explain why a granger has to have a black patch on a blue pair of pantaloons, and vice versa.

A New York paper mentions the fact that a lady once received a declaration of love on her eightieth birthday. Never despair, girls. While there's life there's hope.

Another turn on the capstan of progress has been given. Water is now being used for fuel in Cincinnati, and for that purpose it is said to excel the native whisky.

A St. Louis man was so affected with the story of the Prodigal Son, which he recently heard for the first time, that he sent word to the minister to send the boy to his factory, and he would give him a steady job at good wages.

There is strong probability that Balaam's ass was blessed with progeny. A Georgia preacher says he not only believes the whale swallowed Jonah, but he could also believe Jonah swallowed the whale, had it been so written.

It is claimed that a successful type-setting machine has at last been put in operation. We go right smart on machinery, but we want to see it trot around the office hunting sorts and stealing leads before we take much stock in it.

The ashes of an Imperial Caesar, who was killed more than eighteen hundred years ago, were used by a washer-woman recently in the manufacture of soft soap. It takes a long while sometimes to find out what a man is good for.

The blue gingham umbrella has done heaps of good and saved many a bonnet, but has never been embowered in poetry. Instead of fooling away inspiration on the bestly weather, some of the spring warblers might toss off a little melody now and then to honor of summer's merit.

A medical journal fits several pages with scientific dissertations trying to explain why it is that the percentage of howlers is eight times greater among boys than girls. The reason advanced is purely scientific, and altogether unaccounting to a mind accustomed to browse around in search of herbage of a common-sense nature. Any mother who has ever turned a boy's position wrong side out can store more light on the question than all the doctors. —*Chicago Ledger*.

A Study of the Camel.

No European army has made a study of the camel, and the ignorance of its powers is fatal to the beast, writes a correspondent of *The London Telegraph*. Its routine of life is directed, or should be, upon principles as important as the laws that govern the more useful animals. Its existence has all the right formula of a legal process. To discriminate, discourage a camel is to spoil it; to muzzle it is to kill it. Since his liver complains about disease, and his heart of irregularities in hours of labor; it breaks up altogether under the unusual conditions of life. You can not work one of these beasts to death if you use it in a proper way. Do nothing out of the common shivers it up—destroys it. Its timidity is of the stupid suggestions kind. Substantial causes for flight, such as a wild alarm as intelligent horses, are disregarded by the camel. Yet it will take flight for no reason whatever, or next to none. And that is always the case with the ungovernable, it poses in a mood of perplexity to panic. The only plan, therefore, when conveying with camels through an enemy's country is to hobble the animals as soon as danger threatens. The moment the scouts fall back the camels should be made to sit down and their legs should be knee-haltered in such a way that they can not move, let their tremor be what it may. For once on their legs they are stampeded, and all attempts at rallying them are as futile as trying to coax a sand-storm to stop. The fact about hobbling took us some time to learn, but we learned it at last, and stampede is no longer among the dangers upon which those who accompany the convoys have to count.

Jefferson's Birthday.

Jefferson's birthday was first celebrated in Washington in 1850 by the friends of John C. Calhoun, then a presidential aspirant. The Pennsylvania delegation, thinking that there might be "a cat under the meal," insisted upon seeing a list of the toasts the day prior to the celebration, and finding that they were full of anti- tariff and nullification doctrines, they refused to attend and had a private jollification. This created some stir, and by way of quieting matters, Gen. Jackson recalled a sentiment which he had transmitted, substituting for it, "Our federal union; it must be preserved!"

John Randolph, of Roanoke, the haughty descendant of Pocahontas, wrote to Col. Benton, declining an invitation to this initial Jefferson banquet, and proposing as a toast, "The principles which Mr. Jefferson brought into power, and which brought him into power—the touchstone of the old republican party." —*Boston Budget*.

"Hooked."

Judge—"How did you come by these fish?"

Prisoner—"I hooked them."

Judge—"What have you to say, Mr. Officer?"

Policeman—"He tells the truth, your Honor; he did hook 'em, and I saw it."

Judge—"Then why do you bring him here? Discharged. Next case!" —*Boston Beacon*.

DOMESTIC ECONOMY.**How Fish Culture Has Increased, and the Best Method for Encouraging It.—General Industrial Miscellany.****Progress in Fish Culture.**

Fish culture was undertaken in most parts of this country from necessity. In no part of the world were fish better distributed. When the country was discovered there was excellent fishing, not only all along the coast of the Atlantic, but in the numerous lakes, rivers, and small streams. In many places the first settlers would have perished during seasons when the crops failed had it not been for the liberal supply of fish. Shad were so plenty in the rivers of some of the eastern states that they were salted for use during the times when they could not be eaten in their fresh state. Dried cod, smoked herrings, and salt mackerel were among the chief articles of food in town and country. They also took the place of most of the condiments now in use. Old "dun" codfish was known as "lake cod cheese" in all parts of the coast. Smoked alewives, or Eastport herrings, were employed in place of small coins in making change in country stores. Lobsters, clams, and oysters were so plenty that they were hauled about and sold at a nominal price. Smelts, eels, hake, bluefish, and haddock afforded a variety to those who lived largely on "the harvest of the seas." The prosperity of New England at the commencement of its history was largely due to the fish that supplied the people with their principal articles of food.

The rivers emptying into the ocean and all their tributaries, as well as the lakes that fed them, were plentifully supplied with fish. Salmon were plentiful in many streams that the people were able to catch and cure them in large quantities. All the mountain streams and spring brooks were stocked with trout. The lakes abounded with pike, pickerel, bass, and perch. The great lakes in the west were full of trout and whitefish, and supplied the earlier settlers of the prairies with cheap and excellent food. For many years no necessity was seen for the artificial propagation of fish or even for protecting them from destruction. They were caught in nets, seines, and other apparatus that were the most easy to manage. Dams were erected across streams that prevented the passage of fish. In many places the water of streams was polluted by tanneries, distilleries, and breweries so that the best varieties could not live in them. The supply of fish suddenly fell off in almost all parts of the country at about the same time. Shad became so scarce that none but the wealthy could catch them. Salmon became scarce that they were beyond the reach of most persons. Even mackerel was expensive food, while brook trout readily commanded 50 cents per pound in city markets. Even clams and lobsters took their places among the costly luxuries of the table.

Although fish-breeding was attempted by a few persons of wealth and leisure many years ago, it has only become a matter of general interest since the formation of the National Fish-culture association, which held its last annual meeting at Washington during the last week in the present month. This association has added millions of dollars to the wealth of the country, and we have but just begun to derive the full benefit of its labors. It has worked in connection with the national and various state fish commissions. It was started at the meeting at Washington that the expense of hatching white-fish had been reduced from \$500 to \$50 per million during the last few years. The association has suggested most of the means that have been adopted by state commissioners for the establishment of fishways and the management of fisheries. It recommended many of the bills that were passed by state legislatures for the protection of fish in inland water-courses. It first suggested the introduction of the various varieties of the German carp, which was undertaken by the national government. Only a few years ago thirty-five of these fish were brought to this country and placed in the government ponds at Washington. Some of their progeny are now in every state and territory. They have been sent to over 25,000 places, and it is estimated that there are now 200,000,000 carp in the country. Most of them are still small, which accounts for the fact that they are not in the market.

The United States commissioners have distributed about 600,000,000 fish since 1872, and are prepared to send out 150,000,000 this year. Many of them have been placed in waters where fish were never known to exist before. The experiment was in a large number of instances successful. German carp are found to do well in the alkaline lakes and streams in Arizona and New Mexico, where no fish had previously existed. They also thrive in the artificial stock-ponds in Texas, Colorado, and other places where fresh fish are difficult to obtain. The carp is singularly adapted to the waters of the south, in which fish that do well in a cold climate do not thrive.

Local associations are needed to encourage fish culture by means of bringing a knowledge of the methods pursued by experts before the public. Few people will attempt to start a hatchery, to construct a fish pond, or even to stock one if they have no knowledge of the business except that derived from books and papers. It is with water farming as with land farming. People desire to see how a new operation is performed before they will engage in it themselves. The establishment of a new hatchery or artificial fish pond in a county will cause many people to visit and see how it is managed. The directors of county agricultural societies could render fish culture profitable by establishing a breeding establishment on their fair-grounds. It would be a great attraction at the annual fairs, and help swell the receipts. It could be rendered remunerative in other ways. Breeding fish could be obtained free of cost from the national or state commissions, their eggs hatched, and the small fry sold to persons who desire to stock ponds. The offer of premiums for

various kinds of fish raised in private waters would cause many people to engage in the business of fish culture for the sake of pleasure or profit. The production of fish for food is as worthy of encouragement to an agricultural society as the production of field and garden crops that are to be used for the same purpose. —*Chicago Times*.

Industrial Briefs.

There is some improvement in the present over the old way of making garden and cultivating the crops. Very few now think of fencing in a plot of two hundred feet square and then going into it annually with the spade to dig it up and after planting do all the cultivating with the hoe. The plan now is—and the better plan, too, and one that should be generally adopted,—to select a plot long in shape, plow it up instead of spading it, break the clods, if any, with the harrow instead of the rake, plant the vegetables in rows instead of squares, and cultivate with the horse cultivator, wheel-hoe, or other implements, instead of the hand-hoe. One of the advantages is that a man does the work in an hour that took days on the old plan.

L. A. Goodman, secretary of the Missouri Horticultural society, recommends setting tall-growing trees in the vicinity of buildings, to protect them from lightning. The branches of a tree are so many points conducting the electricity by the trunk to the ground, and hence the more upright the trees grow the better. The Lombardy poplar would seem to be a good style of tree for this purpose, and much better than the broad-spreading oaks and elms. If tall trees near buildings can find a constant supply of moisture in the soil in which they grow, they will prove all the more perfect as lightning protectors. Trees will prove best set on the north or west side of buildings, or in the direction from which the showers usually travel.

Few farmers seem to understand the value of stanchions in feeding calves. They can be made very cheaply out of any old boards lying around the farm, and save a world of time. Give each calf twenty inches space. Put a trough in front, spaced off so that each calf gets his share and no more. They will soon learn to have their heads in position at feeding time and you can fasten and feed a dozen in a few minutes. After they are done with the milk, give a little ground feed or corn and turn the whole lot into a yard where you have some nice hay in a rack.

An experiment was made at the New York experimental station to determine distinctly the advantage gained by sprouting peas before planting, an operation often practiced but not measured. The peas were sown in moist sand, and when the new shoots were over half an inch in length they were carefully planted. Along side the row containing these sprouted peas was another row, planted with unsprouted seed at the same time. The sprouted seed produced 10 bushels for use eight days before the others.

One of the large ranch sales made for some time has just been reported from Fort Worth, Texas. The sale consisted of the entire property owned by the Espinosa Land and Cattle company, embracing 70,000 head of cattle and 200,000 acres of land. It goes to an English syndicate incorporated in London. The consideration is not yet known, but the property is valued at \$1,500,000.

French bakers are making large use of vaseline in cake and other pastry. Its advantage over lard or butter lies in the fact that, however stale the pastry may be, it will not become rancid. The council of hygiene disapproves of the practice on the ground that the derivatives of petroleum contain no nutriment. It does not say distinctly, however, that they are injurious to health.

According to the bulletin of the Society of Naturalists of Moscow, the highest and most notable destruction of pine forests caused by the ravages of a species of mushroom which takes growth on the surface of the wood and afterward penetrates and destroys the tree. Maps are given in which the path of the destroying fungus is traced through the pine woods of Russia.

A Mississippi paper says that there has recently been a noticeable growth in the use of cottonwood for the manufacture of furniture. Recently a steamer took 100,000 feet from that locality to Cincinnati for furniture-making purposes. There is a salvage of cottonwood all along the Mississippi, on the bottoms below Cairo.

The Russian crop of wheat averages about 200,000,000 bushels per year, about one third of which is usually exported. The ability of her inhabitants to subsist upon so small a proportion of her wheat crop is due to the fact that the rye crop averages about 600,000,000 bushels, about 40,000,000 of which are annually exported.

Mr. Jacob Trugenwalt, of Philadelphia, has discovered that catfish skins may be tanned into elegant and serviceable leather. His first experiment was on a skin of a fish weighing about 150 pounds. He has now been engaged in the business for several years, and finds it very profitable.

A Virginia farmer recommends placing brush between the rings in which sweet potatoes grow, to allow support for the vines. He thinks better and larger tubers are produced when the vines get the full benefit of the sun, as they do when they are raised from the ground.

The farmer king of Alabama is Bragg B. Comer, of Harbour county. He raised 2,250 bales of cotton last year, besides a large amount of corn. He has from eight thousand to ten thousand acres in cotton and corn this year, and says crop prospects were never better.

An English horticulturist states that his crop of all kinds of fruit has greatly increased since he engaged in hot-keeping and distributed his hives about his orchard and plantation of bushes.

This is the season to spread wood ashes, leached or otherwise, on grass land. A good beautiful dressing will

make a very decided improvement, both on pasture and meadow lands.

The climate of Iowa is reported to be changing, because farming has removed tall, dense prairie grass and dried up the ponds and reservoirs of water that formerly abounded.

A Colorado paper states that the experiment of maintaining a cowboy hospital is being tried at Fort Fetterman, supported by funds contributed by the cowboys themselves.

Delaware peach trees are covered with buds, and hopes are so high that over five hundred new orchards have been planted this year in the lower part of the peninsula.

Russia and the United States are said to be the only countries in the world that have a sufficient number of horses for army purposes in case of war.

English and German houses have established agencies in various parts of Australia to purchase wool from the sheep-raisers.

The Central New Mexican Stock-Growers' association represents 100,000 head of cattle, valued at \$2,225,000.

Finding One's Way on the Prairies.

To find the way for yourself to a new ranch across the prairie, or to drive anywhere after dark, is a feat only attempted by the unwary. "Love will find out a way" through bolts and bars and parental interdiction; but Love itself would be baffled on a prairie, where the whole universe stretches in endless invitation, and where there is absolutely "nothing to hinder" from going in any direction that you please. "Foller a kind of a blind trail, one mile east and two mile south," is the kind of direction usually given in the vernacular; and so closely does one cultivate the powers of observation in a country where a bush may be a feature of the landscape, and a tall sunflower a landmark, that I am tempted to copy verbatim the written directions sent by a friend by which we were to find our way to her hospitable home:—"Cross the river at the Howards' turn to the right, and follow a dim trail till you come to the ploughed ground, which you follow to the top of the hill. Follow the road on the west side of a corn field, and then a dim trail across the prairie to a wire fence. After you leave the wire fence, go up a little hill and down a little hill, then up another till you reach a road leading to the right, which angles across a section and leads into a road going south to Dr. Reid's frame house with a wall of sod about it. Through his door-yard, and then through some corn. Leave the road after driving through the corn, and angle to the right to the corner of another corn field. Take the road to the west of this corn field go south, up a hill, then to the right and follow a plow trail west; afterward, frame house past Mr. Reid's home-stead, a frame house on the right with a stone house unroofed. South, past a corn field, and ploughed land on the right. The road turns to the right, toward the west, for a little way, then south, then a short distance west, and you reach the gulch-post, which is near a thrifty-looking farm owned by Mr. Bryant; a frame house, corn field, wheat stacks, and melon patch. At the gulch post, take the road going south, with corn field on the right, till you come to two dead trees. Follow the right-hand road (a dim trail at first) down the hill, past some hay-stacks, to the Osage-orange hedge. Follow that to the creek crossing, then through the grove of sunflower to a sod house. Go through the corn directly west, following the creek to the crossing near our house."

The distance was sixteen miles, but we took the letter with us, and found the way without the slightest difficulty, though a little puzzled at first by finding that "at the Howards'" meant anywhere within three miles of the Howards'—*Miss Wellington Rollins, in Harper's Magazine for June*.

Fire on a Kansas Prairie.

"What are your preparations against fire?" Admetus had asked a few days before.

"Such a soul!" answered the Enthusiast. "A can of kerosene and a bundle of matches to set back fires with, though the fire-guards of ploughed ground that you have seen all round the ranch are the ounce of prevention, better than any cure. Then we always keep a hog-head full of water at the stable, ready for carting to the spot."

"A hog-head of water! What good can a hog-head of water do against a prairie fire?"

"Oh, we don't put it on with a hose, I assure you. My imagination gasps at the conception of managing a prairie fire with a hose. We dip old blankets and old clothes in it, or boughs of trees if we can get them, and beat the fire down with them."

The illustration followed soon. All day smoke had been drifting over Carriero, and at night-fall the scouts reported that the whole force had better be put on. "The whole force" at the moment consisted of about twenty men who had just come in to supper, and who started at once in wagons and on horseback. Ponies were ordered after dinner for the entire household, even the ladies riding far enough to have a view of the existing scene. There were no tumbling walls or blazing buildings, and there was no fear of lives being lost in upper stories; but there were miles upon miles, acres upon acres, of low grass burning like a sea of fire, while in the twilight shadows could be seen men galloping fiercely on swift ponies, while the slow wagons crept painfully, lest the precious water should be spilled, from every homestead, each with its one pitiful hog-head. It seemed incredible that such a mass of flame could ever be put out by such a handful of workers; and it was only, indeed, by each man's laboring steadily at his own acre of the great circle, trusting blindly that others were at work on the other side, as of course they always were, that the bird came darkened down at last. —*Miss Wellington Rollins, in Harper's Magazine for June*.

The general is the man who does what eat ought to be expected and is not the man who succeeds—*General Adam Sedgwick, in Vanity Fair*.

TORNADOES.**The Formation and Appearance of Tornadoes, and the Premontory Signs of Their Approach.**

Time will only determine whether this will be a "good year" for tornadoes or not, says *The Chicago Times*. The destruction caused by them during the past few seasons has created much alarm in the districts where they have been the most frequent, and where they have resulted in causing the loss of many lives and much valuable property. The prevalence of tornadoes in some places has made cautious people reluctant to become residents of them, as no person wishes to locate in a place where life and property are rendered insecure by the action of the elements. During the past few seasons the signal office of our war department has made a special study of tornadoes, and has endeavored to collect all the facts attainable in relation to the places where they are most likely to occur, the conditions of their formations, premontory signs of their appearance, and the character of tornado clouds and motions. It has also made investigations in relation to the best means of affording protection from them to life and property. All this information has been compiled by Gen. Hayes, chief signal-sergeant officer, and published by the authority of the secretary of war. Following are some of the important facts set forth in the report, which are of special interest to farmers and others living in the country:

In the United States the terms cyclone, tornado, and hurricane are frequently interchanged in ordinary conversation, and in the minds of nine-tenths of the people these terms mean one and the same thing. This is not altogether surprising, considering the want of systematic instruction in accurate meteorological knowledge, and the general disposition of intelligent minds to speculate about the weather. But, in fact, the tornado of the United States is a well-defined species of storm, differing in many points from hurricanes, cyclones, and thunder-storms, and it is the only one that will now be considered.

Omitting consideration of the tornadoes, so called by Portuguese and Spanish navigators on the African coast, and counting our attention to the United States, it is believed that these storms are possessed of the following prominent characteristics: The general direction of movement of the tornado is invariably from a point in the southeast quadrant to a point in the northwest quadrant. The tornado cloud assumes the form of a funnel, the small end drawing near to, or resting upon, the earth. This cloud and the air beneath it revolve about a central vertical axis with inconceivable rapidity, and always in a direction contrary to the movement of the hands of a watch. The destructive violence of the storm is sometimes confined to a path a few yards in width, as when the small or tail end just touches the earth; while, on the other hand, as the body of the cloud flows more of it rests upon the earth, the violence increases, and the path widens to the extreme limit of eighty rods. The tornado, with hardly an exception, occurs in the afternoon, just after the hottest part of the day. The hour of greatest frequency is between 3 and 4 p. m. Tornadoes very rarely, if ever, begin after 5 p. m. A tornado commencing after 5 p. m. may continue its characteristic violence until nearly 8 p. m., which means, only, that the tornado cloud may be traveling after 5 p. m., or after 7 p. m., but it does not develop—that is, make its appearance for the first time, after those hours. Outside of the area of destruction, at times even along the immediate edge, the smallest objects often remain undisturbed, although at a few yards distance the largest and strongest buildings are crushed to pieces. At any point along the storm's path, where there is opportunity afforded the tornado cloud to display its power, the disposition of the debris presents unmistakable signs of an action of the wind, such as might be called a rotation, from the right through the front to the left around the center. The destructive power of the wind increases steadily from the circumference of the storm to its center.

Observations with a single isolated barometer will not indicate the approach of a tornado, however near the position of the instrument to the path of the storm, but such observations are of value when a number are displayed on the daily weather map. The tornado season is embraced between the 1st of April and the 1st of September. The months of greatest frequency are June and July. There are, however, instances in a long series of years where tornadoes have been reported in every month of the year. Taking the whole United States together, it is found that the region of greatest average frequency per year per square mile, embraces the following states: Georgia, Illinois, Indiana, Iowa, Kansas, Missouri, Ohio.

On the day of the storm, and for several hours previous to the appearance of the tornado cloud, what indications of its probable formation and approach are within the comprehension of an ordinary observer, and can readily be detected by him? A sultry, oppressive condition of the atmosphere, described by various observers as follows: "I really experienced a sickly sensation under the influence of the sun's rays." "I was compelled to stop work on account of the peculiar exhaustion experienced from physical exertion." "It seemed as if the lightest garments that I could put on were a burden to me." "There was no air, a breath of air stirring." "The air, at times, came in puffs, as from a heated furnace." "I felt a want of breath, the air frequently appearing too rarified to breathe freely." "I was startled at the sudden and continued rise in the thermometer, especially at this season of the year." "It was terribly oppressive; it seemed as if the atmosphere were unusually heavy and pressing down on me with great weight."

Enough examples have been cited to indicate the effects and signs of this oppressive atmosphere. Other signs may be found in the development and peculiar formation of the clouds in

the western horizon. Sometimes these peculiar clouds extend from the southwest through the west by the north to the northwest. More frequently, however, they form in the northwest and southwest, sometimes commencing first in the former quarter and then again in the latter, but in either case they are equally significant. The marked peculiarity of the clouds is found to occur not only in the form but in the color and character of development.

The sudden appearance of ominous clouds, first in the southwest and then almost immediately in the northwest or northeast (or perhaps reversed in the order of their appearance), generally attracts the attention of the most casual observer. In almost all cases these premontory clouds are unlike any ordinary formation. If they are light their appearance resembles smoke issuing from a burning building or straw stack, rolling upward in fantastic shapes to great heights; sometimes they are like a fine mist, or quite white like fog or steam. Some persons describe these light clouds as at times apparently indistinct or glowing, as if a pale whitish light issued from their irregular surfaces. If the premontory clouds are dark and present a deep greenish hue, this fairly forbodes very great evil. So, also, if they appear jet black from the center to circumference, or if this deep-seated color appears only at the center, gradually diminishing in intensity as the outer edges of the cloud or bank of clouds are approached. Sometimes these dark clouds, instead of appearing in solid and heavy masses, roll up lightly but still intensely black, like the smoke from an engine or locomotive burning soft coal. They have been described as of a purple of bluish tinge, or at times possessed of a strange lividness, or frequently dark green, and again of an inky blackness that fairly startles one with its intensity.

Another and invariable sign of the tornado's approach is a heavy roaring, which augments in intensity as the tornado-cloud advances. This roaring is compared to the passage of a heavily-loaded freight train moving over a bridge or through a deep pass or tunnel, or as heard on damp mornings when the sound is very clear and loud. At times the roaring has been so violent that persons have compared it to the simultaneous "rush of ten thousand trains of cars." Again, the roaring is likened to the low rumbling of distant thunder. The varying intensity of the roar, as here represented, is apparently due to the lack of uniformity in the positions of the various observers with respect to the advancing tornado cloud. Those situated nearest the cloud, other things being equal, experience the loudest roar, while to those at greater distance the noise is proportionally weaker. In any event, however, the noise is sufficiently peculiar and distinct to create alarm, and as a means of warning should not be overlooked under any pretext.

The tornado cloud is, generally speaking, at its first formation funnel-shaped—that is to say, it tapers from the top downward, not always in the same degree with every appearance of the cloud, but the lower end of it (the part nearest the earth) is invariably the smallest, and this, too, whatever may be the inclination of the central axis of the cloud to the vertical or plumb line. As seen in different positions and stages of development by various observers, located differently, the tornado cloud has been called "balloon-shaped," "basket-shaped," "egg-shaped," "trailing on the ground like the tail of an enormous kite," "of bulbous form," "like an elephant's trunk," etc. In the majority of instances, however, observers describe the cloud as appearing like an upright funnel. When the small end of the cloud just reaches to the earth, the violence of its whirl causes a peculiarly formed cloud of dust and finely-divided debris, around which play small gatherings of condensed vapor. To appearances now, the tornado cloud has two heads, one on the surface of the earth and the other in the sky, the bodies of each joining in mid-air and tapering both ways with the smallest diameter at their junction. In other words, the cloud now assumes the shape of an hour-glass, and the lower portion displays extraordinary destructive violence. This last and most fatal form of the tornado cloud is fortunately not a constant feature of the storm. The tornado cloud is constantly changing from the hour-glass form to that of the upright funnel, or some other intermediate shape previously referred to. The various gradations of form, not any of which, however, affect the stereotyped relation between the size of top and bottom, number some twenty-five or thirty, so far as reliable information has been secured upon this point. These variations of form depend upon the peculiar movements of the whirling currents of air within and about the tornado cloud, the direction of the currents being outlined to the eye by the singular disposition of the rapidly-condensing masses of vapor.

A Reciprocal Spirit.

"I can't find my tooth brush anywhere," said a Cottage Hill young lady, looking all over the house for the article.

"I'll lend you mine," accommodatingly suggested the colored kitchen girl.

"Oh, no, thanks!" replied the young lady turning away.

"You needn't have no combustion about takin' it, miss," persisted the girl, "for I's used yours sometimes when I couldn't find mine." —*Oil City Derrick*.

The Use of Water.

Water, says a traveler who has had many years' experience in hot countries, should be given to a horse whenever he wants it, but he adds: "A man should always try to do as long as ever he can in the early part of the day without drinking; if once he tastes water he becomes thirsty again in half an hour. I have often ridden hard, under a blazing sun, in clouds of dust, from daylight until 11 o'clock, but once tempted to take a drink, have not been able to abstain for an hour at a time."