

## AGRICULTURAL.

**THE ART OF MAKING BUTTER.**—In response to numerous inquiries before the American Institute Farmers' Club in regard to making prime butter, Mr. Todd gave the following information:

Many producers of butter make a grave mistake, which deprives them of a large amount of clear cash, by supposing that the products of their dairy will return as much profit when the butter is made in such a careless manner that it resembles a cross between mutton tallow and lard, rather than gilt-edged butter. Thousands of tubs and firkins of butter, strong enough to perambulate the city, are sold from ten to fifteen cents per pound; whereas, by exercising a little care and neatness, and adding the proper quantity of salt, every pound would have brought thirty or thirty five cents. The loss has to be sustained by the producers. Thousands of hard-working females, who grind out their dimes by irksome drudgery, could save two or three dollars per every hour's service when making butter, by simply spending a few minutes more than they have hitherto done in managing their milk, cream and butter with extra care. It is the scrupulous neatness in washing milk pails and pans, in the management of the cream in churning and packing butter, that secures an article that will pass for prime gilt-edged butter, which always commands a remunerative price, whether it is made in Orange County, or on the prairies of Kansas. I wish to impress on those butter producers who always complain of low prices, the eminent importance of observing only a few things which will enable them to make an article which may be forwarded directly to any of our fashionable hotels, where every pound will command the highest price.

1. That every milkpail, pan, churn and butter-bowl are cleaned with boiling hot water as often as they are used.

2. See that the udders of the cows and hands of the milkers are as clean as pure water will make them before an atom of milk is drawn.

3. Provide a clean place for the pans while the cream is rising, where the pure breezes from the green fields may blow into the window over the cream and out at an opposite opening. Good butter can never be made in a filthy apartment, where there is offensive effluvia arising from anything, no matter what.

4. Cream ought to be churned every day; yet, if one can provide a clean corner, in a cellar or milk-room clean and cool, and keep the cream-pail on a clean piece of flagstone, he can make superior butter by churning twice per week, provided the temperature of the cream is maintained from day to day about sixty Fahrenheit.

5. Always skim the milk soon after the cream has risen. Thousands of barrels of cream are ruined for making gilt-edged butter by not skimming the milk soon after the cream has risen. The sooner the cream is removed after it has risen the better the butter will be. Milk which should be skimmed at evening is frequently left till morning, when the cream will be injured to such an extent that gilt-edged butter cannot be made from it at all; neither will it make as many pounds as if it had been skimmed at the proper time.

6. Let the churning be done by a person whose hands and clothes are as clean and as sweet as a blossom of red clover, and let the churning be continued until the butter has come. It is ruinous to the butter to put cream in the churn, as is sometimes done, and churn rapidly for a minute or two every hour in the day, then in the evening all take hold in turn, and keep the cream dashing and splashing until midnight. If the cream is properly managed, butter will always come beautifully in less than half an hour.

7. The butter should be worked and thoroughly salted soon after it is churned. There is but little danger of salting too much. One ounce per pound is not enough for butter that is to be shipped any considerable distance. It is ruinous to the grain of butter to throw it into a dish-pan and knead it with the hands. The best instrument for working out the buttermilk is anything that will cut deep gashes in the butter into which the buttermilk will flow. The next day after churning the butter should be worked again, and packed. Beware of working butter too much. A great many persons continue to work and knead their butter to its injury after the buttermilk is removed, thinking that all the "crystal tear drops," which are not buttermilk, must be worked out.

8. Thousands of tubs and firkins are received in the New York market con-

taining what was once prime gilt-edged butter, but which was spoiled by being packed before the tubs had been properly prepared by being soaked in brine. For the sake of saving three cents worth of salt for preparing a strong brine in which to soak a firkin two or three days, many a frugal housewife has been obliged to accept half the price of prime butter simply because the staves were not saturated with brine before the butter was packed.

**MAKING VINEGAR.**—I noticed an inquiry how to make cider vinegar without the use of chemicals or drugs. My way is simply to tear brown paper into strips of eight or ten inches long, and four or five in width; dip them into West India molasses, so that both sides shall be covered. To three gallons of cider I put six of these pieces and set the jug where it will keep almost milk warm for about ten days. You will have good sharp vinegar that will keep. The paper saturated with the molasses will form a mother, and a piece of it put into sweetened water makes a nice vinegar plant that will grow rapidly, and keep a supply of very good vinegar if kept in a warm place. **FARMER'S WIFE.**

—Country Gentleman.

**ORCHARD GRASS.**—The *Practical Farmer* says:—We have found one field, the soil being in high condition, where there was a heavier growth of orchard grass and clover than we had almost ever seen of any kind of grass. It had been sown thick, had so fine and broad a leaf, with such a dense mass of it all standing beautifully, that we did not recognize it at first, and it required closer examination to satisfy us. Orchard grass and clover ripen well together, and on this field there could not have been less than two and a-half tons to the acre. We have always valued this and clover as a good mixture for hay and pasture. On good ground, and when sown at the rate of two bushels to the acre, we consider it a far better mixture than clover and timothy. No grass recovers so rapidly after close cutting or feeding down. John Hare Powell used to say of orchard grass, after growing it for ten years, "that it produces more pasturage than any other he had seen in America, and on being fed very close, that it produced good pasture after being five days at rest."

## The Temperature.

It is with more than usual pleasure that we announce a change in the temperature and the prevalence of a cool, light breeze, that make earth endurable and labor possible. For two months this planet of ours has been passing through a fiery furnace; the sun has shone through all the days like a great ball of fire, and the air itself has seemed incandescent. We have had rains, but the bath was a warm one; winds, but they were wafted from an oven. The "oldest inhabitant," after refreshing his memory and consulting his weather record, has admitted that he "never saw the like before;" an admission the old gentleman is not in the habit of making, and therefore all the more important. Vegetation has been parched and all nature has suffered. The only redeeming feature of the season has been that its very heat has compelled the over-taxed business man, the politician, and even the journalist, to quit the precincts of the city for the country and the seaside (often only for a day, but even that was twenty-four hours of honest, wholesome enjoyment), and leave their cares and work behind. But now the mercury has gone down, and life is once more a blessing, and we have something to be thankful and to live for.—*Philadelphia Press.*

## A Week of Weather.

Last week was as notable as any in the experience of this quarter of New England. We venture to say that very few would wish to pass through a like experience again, even could they feel assured that they would have a safe deliverance. Every day through the week it rained, and every day there were imposing demonstrations of an electrical character. Tuesday brought down a copious shower, to drench everything; but Wednesday followed it, with such spouts of watery discharges, and such terrific and appalling accompaniments of electricity, as never were witnessed during an entire lifetime in this or any other latitude. The evening thunder storm of Wednesday was one of the atmospheric sovereigns of its kind; but that which came up with such a rush and roar of wrathful

energy at midnight was the crowning and culmination of all similar phenomena. It is saying little to describe it as terrific, impressive and overwhelming with the consternation it produced; it was a perfect king of terror, a very demon of power let loose, a giant of wild energy that seemed to delight in the havoc of its exercise. No one will forget its visit while he lives. The clouds came up out of the distant southwest, peeling forth their thunderous salutes one after another with fearful rapidity and flashing their blinding lightnings through the sky with all the recklessness of a spirit of destruction. The unbroken succession of electrical discharges was like the incessant reports of whole parks of artillery, and so near as to tear their very echoes to tatters before they reached the startled ear. The lightnings leaped and darted and played with the fiercest illumination, and human dwellings were kept in a constant blaze of fire throughout their whole interior. An entire population sprang affrighted from their beds. The alarm guns that were pealing and crashing with such rapidity through the sky, struck every one dumb with terror. None regarded the torrents of rain that accompanied these terrific demonstrations, their thoughts absorbed with the effect of the unparalleled electrical displays. For an hour there was universal consternation, and for another hour the feelings strove hard to regain their self-control in every breast, while the east was a field on which the lightnings still continued to play with the fiercest joy over their freedom. One by one the stars came peeping out in the west, and even an aurora flashed up its evanescent waves of light in wild rivalry of the scene just enacted. Not until morning's dawn were people able to compose their feelings, after the most impressive night ever passed.—*Boston, Massachusetts, Ploughman, August 24.*

## Restoring the Equilibrium.

The exceedingly hot weather of this summer, not only throughout this country, but in Europe as well, has excited general remark both in private conversations and in the public journals. The heat has been severe, indeed; but there is nothing surprising in it to those who give the subject a little thoughtful attention.

It is a well established fact, long since accepted in scientific circles, that the mean temperature of given zones or sections of a continent is substantially the same, counting through a certain fixed period of time. Ten years used to be considered the shortest term in which such average could be satisfactorily established; but it is now conceded by many scientists that five years constitute a sufficiently long period to furnish all the data necessary for illustrating the theory, and not a few hold that a comparison of one year with another is all that is needed to demonstrate the principle. It follows, therefore, in order to restore the equilibrium of temperature for a given period, that a term of severe coldness must be followed by one of extreme heat. There is ground, also, for the opinion that the winter season is the initial point, and that a very cold winter is almost sure to be followed by a very hot summer, rather than the reverse. By the same rule, a mild winter is likely to be succeeded by a mild summer—the equilibrium not being disturbed very greatly in the latter case by the unusually low temperature in winter. The reader will remember, for instance, that the winter of 1870-71 was one of ordinary coldness only, and that the average heat of last summer was not very severe. On the other hand, last winter was one of unparalleled severity in all parts of the country, and this summer, in consonance with the rule, the complaints of excessive heat come from every quarter. Nothing extraordinary about it. Nature is only restoring the equilibrium which the terrible freezes of last winter so effectually disturbed. In other words, she is striking the average, to use a common expression; and as next winter may be mild or severe, so is the following summer pretty certain likely to be pleasant or uncomfortably hot.

As intimated above, the results of yearly comparisons are not so complete as to give the theory in regard to them the standing of a fixed law of nature, but at any rate the subject is worthy the attention of those curious in such matters, and those who have doubts in regard to it can easily have them dispelled or strengthened by observations in future.—*Washington Star.*

## A New Method of Making Railroad Cars Comfortable.

The *New York Post* says: How tantalizing in this hot weather to read in an Indian journal that two first-class cars sent from Bombay for the purpose of conveying the Viceroy and staff from Calcutta to Umballa were cooled by Mr. Saunders' patent, described as the most successful yet tried. Under the floor of the car there is an air chamber with ventilators at each end for collecting the air in the direction in which the train proceeds. Above these air chambers are four layers of khuskhus mats, with spaces for air left between them, through which a current passes into the interior of the car. The "latties" are watered by means of a peculiarly constructed bucket, which is replenished by a small pipe from a tank, which, when once filled, will not be exhausted before six hours. The bucket is so adjusted as to tilt over at intervals of a quarter of an hour, and to discharge its contents into two pipes that run through the centre of the car floor. These pipes have long slits cut in them, through which the water is dispersed over shallow perforated tin trays placed over the khuskhus mats, over which the water falls in the form of rain. Perfect ventilation, which has hitherto always been the stumbling block in similar enterprises, is effected in this case by windows, which open outward and are secured at a lateral angle of about thirty. The outer heated air, coming in contact with the window, strikes off from it, and without raising an actual draught, creates a current which draws out the cool air inside the car by the windows. These windows are so constructed that every alternate window opens in one direction, so that, while one set of windows is opened when a train proceeds in one direction, the other set may be used when the train proceeds the other way. In addition to the above arrangements, there is a self acting ventilator in the roof, which is nothing more than a shutter working on a central pivot, which is kept open in the direction in which the train moves. These windows and ventilators entirely exclude the entrance of the external air, and no air is admitted into the interior of the car which does not first pass through the cool air spaces in the flooring, which, being necessarily free from dust, insures comfort and cleanliness in the interior.

To judge from what was said at a recent meeting of laborers at Oxford, the working-men of England do not take kindly to the clergy. It was remarked that "the parsons are the enemies of the working-men; and he (the speaker) should like to see the time when churches should be turned into barns, and parsons into threshing-men."

The Parisian journals are not slow to express opinions very decidedly adverse to the claims of Mr. Stanley. The whole history they regard as a colossal hoax. The letters purporting to have come from the veteran explorer's own pen, they denounce as forgeries. Livingstone himself they believe to be dead, and on that condition only do they think it probable that Mr. Stanley would have braved detection and ventured to do what he has done.—*N. Y. World.*

Brain-work costs more food than hand-work. According to careful estimates and analyses of the excretions, three hours of hard study wear out the body more than a whole day of severe physical labor. Another evidence of the cost of brain-work is obtained from the fact that though the brain is only one-fortieth the weight of the body it receives about one-fifth of all the blood sent by the heart into the system. Brain-workers therefore require a more liberal supply of food, and richer food than manual laborers.

Perhaps it will be some comfort to swearing mankind on this side of the water to learn that the heat is in other countries also perfectly terrible, and that on the high mountains of Switzerland it is almost unbearable. In the last number of the *Swiss Times* we read: the heat has become simply insufferable, the cattle already at break of day retire to their shelter. For years back the glaciers have not melted as during this season. Great masses as large as a church roll down into the depths below, producing a noise like that of rolling thunder. Wild animals of all kinds may be seen, and innumerable herds of chamois graze peacefully with the cattle, and, if no attempt is made to catch them, are perfectly tame.—*Ex.*