

surprise than before. At length finding all her efforts in vain she uttered a short angry grunt of disappointment or fear, turned short around and started off on a brisk run, nor could either coaxing or driving ever induce her to visit that part of the field again.

MAPLE SUGAR.—The *Scientific Artisan* contains the following brief, but excellent suggestions, relative to sugar-making:—"It is impossible to make good maple sugar unless the sap is boiled soon after it runs. If it is allowed to sour in the least the iron vessel in which it is boiled will darken the color of the sugar, giving it a disagreeable taste, and very injurious to the health of those who use it. Never allow the sap to burn on the top of the kettle, and every time you fill it up wash it off. You can remedy this by setting your kettle in an arch, leaving a part of your kettle down as low as the line of division between fire and no fire. Never allow your syrup to stand over night. Make your syrup so thick that one quart will make one pound of sugar, and let it get perfectly cool before you sugar off. Stir in a little milk; then keep it over a moderate fire until it is skimmed, and be careful not to burn it afterwards. Stir the sugar while it is cooling, or until perfectly dry. Never pour hot sugar into wooden vessels."

TARRING POTATO SETS.—At a recent meeting of the New York State Agricultural Society, Hon. A. B. Dickinson said he had not sown or planted anything for ten years without a coating of tar, and in planting his potatoes he dissolved one pint of tar in three pails of boiling water, and added four pails of water afterward. This solution he poured over his seed and mixed it with them, and covered with plaster.

THE TWIST OF TREES IN THE DIRECTION OF THE SUN.—A correspondent of the *Scientific American* says:—"It seems to be a new idea to you that the twist of trees generally turns in the same direction as the sun. My observation has been more particularly upon pines. Chip a pine at the stump height, and if it twists or winds with the sun, leave it, for it will not do for shingles; the higher up you try it, the more you will find it to wind. On the contrary, if it winds against the course of the sun, the twist will run out in some ten feet, and the grain then either continues straight to the remainder of the length, or, perhaps, even turns and winds with the sun, near the top of the tree. This is a fact which is no less true than curious."

THE UNIVERSAL METAMORPHOSIS.—If a wafer be laid on a surface of polished metal, which is then breathed upon, and if, when the moisture of the breath has evaporated, the wafer be shaken off, we shall find that the whole polished surface is not as it was before, although our senses can detect no difference; for if we breathe again upon it the surface will be moist everywhere except on the spot previously sheltered

by the wafer, which will now appear as a spectral image on the surface. Again and again breathe, and the moisture evaporates, but the spectral wafer reappears. This experiment succeeds after a lapse of many months the metal be carefully put aside where its face cannot be disturbed. If a sheet of paper on which a key has been laid be exposed some minutes to the sunshine, and then instantaneously viewed in the dark, the key is removed, a fading spectre of the key will be visible. Let this paper be put aside for months where nothing can disturb it, and in darkness, be laid on a plate of hot metal, the spectre of the key will again appear. In the case of bodies more phosphorescent than paper, the spectres of many different objects which have been laid on it in succession, on warming, emerge in their proper order. This is equally true of our bodies and of our world. We are involved in the universal metamorphosis. Nothing leaves us wholly as it falls. Every man we meet, every book we read, every picture or landscape we see, every word we hear, mingles with our being and moulds it. There are cases on record of ignorant men in states of insanity, uttering Greek and brew phrases, which in past years they had heard their masters utter, without, of course, comprehending them. These tones have been forgotten; the traces were so faint under ordinary conditions, they were inaudible, but these traces were there, and in the light of cerebral excitement they started into prominence, just as the spectral image of a key started into sight on the application of heat. It is thus with all the influences to which we are subjected.—*Cornhill Magazine*.

DRUNKENNESS IN WINE-GROWING COUNTRIES.—In Europe you see many things which are strange to an American. Take the use of wine. If I am right, the Europeans consume 6,500,000 gallons of wine. In France, out of account the pasture land which is ploughed, and the forests, of the actual land one-third is devoted to the culture of the grape. Yet there are immense districts in which no wine can be raised at all. I see it that the government returns make it appear that the people of France drink 850,000,000 gallons of wine, and the calculation is that there is not much less than 1,000,000,000 of Y. I believe, in the year 1859, there was drunkenness among the 39,000,000 of France as among the 3,000,000 of New England! I have been four times to Rome; there are wine shops everywhere out doors from three to six hours a day. I have never yet seen a man drunk; not one is merry, never intoxicated. The Italians, French, &c., are quite temperate; they drink their weak wine with water, and take liquors, it is only a little glass (which does not make a spoonful.) I believe there's a bar in all Italy where