

WHALE OIL SOAP FOR INSECTS.—Poth last season and the present, we have been much annoyed by the rose-slug, which was so plenty as to totally destroy the foliage on several kinds of roses. We tried common soap-suds, tobacco water, and fumigation with tobacco, to no purpose. We could kill the aphids and all other insects on the shrubs, except the slug. That would live in a strong infusion of tobacco for hours, and then, on being restored to the rose-bushes, would pursue its instinctive course as if no thing had occurred. At last whale oil soap was tried. This finished them quickly. The proper quantity is two ounces dissolved in a gallon of water, to be applied with a syringe, taking care to have the liquid strike the under side of the leaves, where the slugs generally keep themselves. A friend who has tried this kind of soap on some very fine roses on which the slug had made its appearance, reports the same success, there not being an insect to be found on the shrubs at this time.

MELON APPLE.—A late number of the Horticulturist has a beautiful cut of this apple, which is now obtaining so great celebrity in New York and the East. We have never seen but a single specimen of the apple.—About nine years ago a friend, returning from Central New York, brought us some specimens of different varieties of fruit, and among them some Northern Spys, over which he seemed to desire us to be much elated.—After tasting these, we came upon a rich, red, good sized, symmetrical one which seemed to us to excel any apple we had ever eaten. On enquiring the name of it, we were told it was a new variety called the "Melon" apple. We have never forgotten that fruit, and are not surprised at the celebrity it is now obtaining. Judging by that specimen it is as much superior to the Northern Spy as the Spy is to a cucumber. True, further acquaintance with it might modify our opinion of it somewhat; but we are ready to say of it, as we have said of single good speeches, that the man who could make one such ought to be able to make one more.—*Prairie Farmer.*

CUCUMBER SEED.—Some people do not know how to cleanse the cucumber seeds which they save from their own garden.—They cut the cucumbers open, dry them and dig out the seed with the dried mucilage adhering to the seeds. A better way is—when the cucumbers are ripe, cut them open and scrape out the seed, with all the mucilage, into an iron vessel large enough to contain them. Put water into the vessel and set it in a place moderately warm. In a few hours fermentation will take place, that will collect all the mucilage together on the top of the water, leaving the sound and heavy seeds to sink clean at the bottom. Pour off the water with the thick stuff at the top, and then you have the seeds clean. Put them where they will dry, and then lay away till next spring.

HEALING PAINT FOR DECAYED BRANCHES, OR SNAGS, IN FOREST AND OTHER TREES. Dissolve two ounces of corrosive sublimate in spirits of wine and mix with three pints of best tar. The decayed parts to be pared off or gouged out below the level of the surrounding sound bark, and the wound well painted over with the above. All limbs that require removal should be cut off close to the trunk, or larger branch, and treated in the same way.—*Gard. Chron.*

RAILROAD CAKE.—One cup of white sugar, one cup of flour, two tablespoonfuls of melted butter, three eggs, one teaspoonful of lemon essence. All ingredients stirred in together, and baked in a long narrow tin.

Communications.

USEFUL ASSISTANCE OF CHEMISTRY TO THE FARMER.

[CONCLUDED.]

In every plant, and in especial abundance in the parts of plants most valued for food, in the seeds of the cereal and leguminous (the grain and podded) crops; and in the roots of the turnip, the potato, and the carrot, we find another gas which disappears when the plant is burned. Its presence gives peculiar properties to the parts in which it is found. It is named nitrogen; and, like oxygen, is one of the chief constituents of the atmosphere; but though forming the great bulk of the air, it is distinguished rather by the want of the properties possessed by its other constituents, than by any characters of its own. It differs from hydrogen by not being inflammable; and, unlike oxygen, it is incapable of supporting flame. It forms four-fifths of air; and is, therefore, constantly presented to plants; and we have reason to believe that it is not taken by plants directly from the atmosphere; but that they procure it from certain compounds which it forms and especially from a gas termed ammonia, which is a compound of fourteen parts of nitrogen, with three of hydrogen. Ammonia is invariably diffused through the air; and though, like the gases of which it is composed, is invisible, it has both smell and taste; and its pungent odour is familiar. It is this pungent gas that effects the eyes in the ill-ventilated stable; and it is also given off together with carbonic acid, wherever animal and vegetable matters decay. Ammonia dissolves readily in water; and a strong solution of it forms the hartshorn of the apothecary. It may be procured by heating together quick-lime and one of its compounds, sal-ammonia. We have reason to believe that it is from ammonia that the plant receives the nitrogen it requires. Evolved in the soil during the decay of manure and of the dead roots of plants, it accelerates vegetation; and by enabling our crops to procure it by artificial means, we increase their development, and cause them to afford us a larger amount of those nutritious compounds, upon which their value as food depends.

Such are the substances which chemistry shows us compose that large portion of a plant that disappears into the air when it is burned. Originally derived from air and watery vapour, heat merely breaks up the compounds in which they had for a