

stance burning with a blaze—the flame of a kitchen fire, of a burning building—hydrogen in the act of combining with oxygen producing water. On the other hand, when we see any organic substance burning with a heat without blaze like charcoal or anthracite it is carbon combining with oxygen, and producing generally, carbonic acid. If the blaze produces a good deal of light, you may be pretty sure that the substance contains both carbon and hydrogen, the light coming principally from intensely heated carbon before it is burned. *New England Farmer.*

SARDINIAN FARMHOUSE.—In this court are elements of husbandry, antique enough to tax the ingenuity of Jonathan Oldbuck himself as to their real origin; and in a snug corner are neat racks of cork pails, there placed in pleasing anticipation of the coming milking time. There is tremendous baying and rushing forth of enormous hounds, silenced with difficulty by an angry tremendous "Ai ha!" and "Zitto!" from the farmer, where at the noble creatures wag their tails and crouch their several resting-places. And the farmer, with his short kilt of black home-spun, wide white cotton drawers and sleeves—so white, too—and loose sheepskin, sleeveless with the shaggy wool outside, neatly-gaited legs, long black beard, and knife-garnished belt, certainly he does not look much like a tiller of land and tender of flocks; he is, in mind at least, much more resembles a banditti. Nevertheless poor Renzo is good and harmless enough, and we may as well follow him into his cheerful and hospitable farm. The first room is, as usual, the general apartment. The huge smoking smoulder occupies the centre; in one corner, neatly laid up, are the sleeping mats, which at night will be unfurled and placed in a circle round the log, to serve as couches for the young members of the family; the luxury of beds is reserved for married couples or occasional guests. *National Magazine.*

Snow.—The snow was proverbially called the farmer's manure" before scientific analysis showed that it contained a larger percentage of ammonia than rain. The snow serves as a protective mantle to the tender herbage and the small plants against the fierce blasts and frosts of winter. An examination of snow in Siberia showed that when the temperature of the air was seventy-two degrees below zero, the temperature of the snow a little below the surface was twenty-nine degrees above zero, over one hundred degrees difference. The snow keeps the ground just below its surface in a condition to resist the chemical changes which would not happen if the earth was bare and frozen to a great depth. The snow prevents exhalations from the ground and is a powerful absorbent, retaining and preventing the earth gases arising from vegetable and animal decomposition. The snow,

though it falls heavily at the door of the poor, and brings death and starvation to the fowls of the air and beasts of the field, is yet of incalculable benefit in a climate like ours, and especially at this time when the deep springs of the earth were failing and the mill streams were refusing their motive powers to the craving appetites of man. If, during the last month, the clouds had dropped rain instead of snow, we might have bored the earth in vain for water; but, with a foot of snow upon the earth and many feet upon the mountains, the hum of the mill-stones and the harsh notes of the saw will soon and long testify to its beneficence. Bridges, earth-works, and the fruits of engineering skill and toil may be swept away, but man will rejoice in the general good and adore the benevolence of Him who orders all things aright. The snow is a great purifier of the atmosphere. The absorbent power of capillary action of snow is like that of a sponge or charcoal. Immediately after the snow has fallen, melt it in a clean vessel and taste it, and you will find immediate evidences of its impurity. Try some a day or two old, and it becomes nauseous, especially in cities. Snow water makes the mouth harsh and dry. It has the same effect upon the skin, and upon the hands and feet produces the painful malady of chilblains. The following easy experiment illustrates beautifully the absorbent property of snow: Take a lump of snow (a piece of snow crust answers well) of three or four inches in length, and hold in the flame of a lamp; not a drop of water will fall from the snow, but the water, as fast as formed, will penetrate or be drawn up into the mass of snow by capillary attraction. It is by virtue of this attraction that the snow purifies the atmosphere by absorbing and retaining its noxious and noisome gases and odors. *Exchange.*

AN AUSTRALIAN BANQUET.—A banquet of a novel character has been held in Melbourne. Some time since an acclimatization society was set on foot by Mr. Edward Wilson, who has effected so much in the way of introducing foreign animals, game, singing birds, &c., into Victoria. This society is now numerous, and has several life members. They have had an experimental dinner, at which were served up many of the native animals, birds, and fishes. The bill of fare comprised kangaroo, wallaby, wombat, bandicoot, opossum, and porcupine, among the animals; black swan, wild turkey, paroquet, water-hen, and wattle-birds, among the fowl; and most of the fish of the Australian seas and fresh waters.

VITALITY OF SEEDS.—There is a great difference in the duration of vitality of seeds. Those which have much oil in their composition spoil rapidly, owing to the fatty matter becoming rancid. Seeds of different character, particularly those protected by a shell. Cucumber seeds have been kept good nearly 20 years, corn 30 years, and wheat for more than 1000 years.