We thank an anonymous correspondent for the following, in our opinion, excellent version of one of the best known and most generally esteemed melodies of modern times. It is time it were rescued from the drunken rowel.

AULD LANG SYNE.

Should auld acquaintance be forgot,
And never brought to mind?
Should auld acquaintance be forgot,
And days o' lang Syne?
For auld lang syne my dear,
For auld lang syne;
Wha loves na frens o' days gone by,
And auld lang syne?

We twa hae run about the braes,
And pou'd the gowans fine;
But we've wander'd many a weary fit
Sin auld lang syne.
For auld, &c.

We twa hae paidelt in the burn,
In simmer days sae fine;
But seas between us braid hae roar'd,
Sin auld lang syne.
For auld, &c.

And here's a haun, my trusty frien,
And gie's a haud o' thine;
For dear's the tes o' other days,
And auld lang syne.
For auld, &c.

AGRICULTURAL.

CONSTITUTION OF NATURE—THE ATMOSPHERE.

FROM JACKSON'S AGRICULTURE AND DAIRY HUSBANDRY.

It was anciently supposed that all created things consisted of but four elements—earth, fire, water, and air; but this idea has long since been abandoned. Earth is a composition of various substances, as will be afterwards explained; fire is merely a manifestation of extreme heat; water is composed of two gases in chemical union; and air is also a compound of various gases intimately united in different proportions. Instead of only four, it is now ascertained that there are at least fifty-four simple or elementary bodies in nature, namely, six gases or aerial fluids; forty-two metals; and six bodies of no particular class, the names of which are carbon, boron, phosphorus, sulphur, silicon, and iodine. All objects recognisable by our senses, animate and inanimate, are composed of one or more of these fifty-four substances. Matter, however, has ever been, and is now, undergoing perpetual decompositions and recombinations, some of which take place upon an extensive scale, as part of the regular functions and operations of nature, while others are effected by the ingenuity of man, to serve the purposes of his ordinary economy. The constant forming of new soil out of rocks; the growth and decay of vegetable and animal bodies, and the resolving of their decayed substances into those elements or combinations which serve for the nourishment of new bodies; the processes of evaporation and recondensation, forming rain and snow—are but a few of the changes which matter is perpetually undergoing.

The changes which take place in the form and character of bodies are effected by certain principles of chemical and mechanical action, which is unnecessary here to particularize, and also from the influence of heat and moisture. In as far as the natural operations of the vegetable world are concerned, the prime immediate agents are atmospheric air, heat and light, and of these we propose to offer a short explanation. The atmosphere as is generally known, is an invisible aeriform fluid, which wraps the whole earth round to an elevation of about forty-five miles above the highest mountains. This great ocean of air, as we may call it, is far from being of a uniform density throughout its mass. At and near the level of the sea it is most dense, in consequence of the pressure above. As we ascend mountains, or in any other way penetrate upwards, the air becomes gradually less dense; and so thin is it at the height of three miles, as for instance on the summit of Mont Blanc, one of the Alps, that breathing is there performed with some difficulty. Beyond this limited height, the density of the air continues to diminish; and at the elevation of about forty-five miles it is believed to terminate. So dense are the lower in proportion to the higher regions, that one-half of the entire body of air is below a height of three miles, the other half being expanded into a volume of upwards of forty miles.

This remarkable difference in the density of the air at different heights is particularly worthy of our attention; for the capacity in the atmosphere for receiving and containing heat from the sun's rays, depends on this peculiarity in its condition. It is well known that the air is much more warm on low than on high grounds; but it is perhaps not so generally understood that this arises from the difference of density in the air at the two places. If we take a pound weight of air near the sea's level, and another pound weight at a spot a mile above the sea, we shall find that each pound contains precisely the same quantity of heat; but in the case of that taken near the sea, the air will feel warm, and in the case of the other, the air will feel cool. This seems a contradiction, yet it is a truth. A pound weight of air, taken near the sea, is compact in substance, and goes into a comparatively small bulk; but that taken from a high part of the atmosphere is thin, and occupies a much larger space. This explains why the thin air on high grounds is seemingly colder than on low situations. Aloft, the air is as warm as it is below, but there is less of it; the particles are more widely asunder, and this produces the effect of a great coldness. Properly speaking, the cold in high situations arises from the want of air, rather than from the air itself.

In the warmest regions of the globe, the air is cold at the tops of high mountains, merely because the air is there thin and incapable of forming a medium for the retention of the sun's rays.—In every country there is a point of altitude at which water freezes on all occasions, whether summer or winter. In Europe, this point—called by some the snow line, or point of eternal snow—is from five to six thousand feet above the level of the sea; in the hot regions of Africa and America, it is fourteen thousand feet high. At these points of altitude respectively, snow lies constantly unmelted on the mountain sides and summits. In the warm regions of Hindoostan, the atmosphere is as cool and pleasant at a certain height on the Himalaya mountains as it is in the northern part of Europe. The plains of Mexico under a burning sun would not be endurable by man, if they were not at such an elevation as to possess an atmosphere so thin as to be incapable of being heated to excess.

Although the heat of the atmosphere thus depends on the density of the fluid, it is proper to state that it is likewise influenced by other circumstances. Certain bodies have the power of heating the atmosphere in a greater degree than would otherwise be the case. For example, in valleys the heat is thrown off from the sides of adjacent hills, from forests of trees, or other objects, and in these situations the air is hotter than if there were no such radiation. If the spot be sheltered from the cooling effect of winds, there is another cause of increase to the temperature.

The more heated that any fluid becomes, it is the more expanded, and consequently lighter. Being lighter, it rises or mounts upward, while the cooler fluid sinks and occupies its place to be warmed and lightened in turn. These alternations greatly disturb the tranquility of the atmosphere. Here the air is rising, there it is sinking or rushing sidewise to supply the deficiency; in short its motions are indescribably various, all in consequence of the ever-shifting temperature of the atmosphere. The currents of air so caused are the winds, with the effects of which all are familiar. In the British Islands, and other countries similarly situated, the winds which blow are in general a result of disturbances in the balance of the atmosphere at the distance of thousands of miles in the tropical or hot regions of the earth, and their occurrence cannot be calculated upon, and hence a principal cause for uncertainty in the weather.

The atmosphere possesses the capacity for absorbing and sustaining moisture, but only to a limited extent. When saturated to a certain degree, it is relieved by the falling of the moisture in the form of rain. It is calculated that the whole atmosphere round the globe could not retain at one time more moisture than would produce about six or seven inches of rain. By an elevation of temperature, the capacity of the atmosphere to absorb and sus-