

vember; a specially good number, containing much that is instructive and useful, with the usual service of *facetia*, not all of which is in good taste or absolute propriety.

CHAMBERS' JOURNAL; too well known to need characterization or eulogy.

BLACKWOOD'S MAGAZINE; an old familiar literary friend to all who make pretensions to scholarship.

THE LEISURE HOUR; of which it is enough to say that it issued by the London Religious Tract Society, whose *imprimatur* is a guarantee for all that is good and excellent.

Messrs. Cushing & White, of Waltham, Mass., gentlemen that they are, send us their ILLUSTRATED CATALOGUE and PRICE LIST of the celebrated Waltham Copper Weather Vanes, gilt with gold, 23 carats fine, some of which are so pretty, that so soon as editing pays well enough to admit of it, we mean to have one for our house, another for our barn, and a third, better looking than all, if we can get our co-religionists to agree to it, for the steeple of our church.

Messrs. J. A. Bruce & Co., of Hamilton, send us their AUTUMN CATALOGUE of DUTCH FLOWERING BULBS, which did not come to hand in time for our last number, or we should have noticed it then. It is not yet too late to prepare for winter floral adornment, by putting hyacinths into glasses and pots, or planting crocuses, tulips, &c. We advise all who can afford it to beguile winter of some of its dreariness by the beauty and fragrance of indoor flowers.

The Farm.

TEMPERATURE OF THE SOIL.

It is well known that in the cultivation of crops generally, the temperature of the soil as well as that of the atmosphere greatly affects the growth and healthy maturity of plants. What gardeners call bottom heat, that is a high temperature of the soil produced by the fermentation of horse manure in hot beds, duly protected by glass against the lower temperature of the atmosphere, shows what can be done in early spring, even in cold climates, in raising tender

vegetables of excellent quality and flavor. The physical condition of the soil, as regards density, color, and absorptive properties, exerts a more powerful influence on its productive capabilities than is often suspected. Wet soils, everybody knows are cold and late, and very difficult to manage; if they contain a large proportion of clay, as is often the case, they require much labor to bring them into proper tilth, and in wet seasons the crops they yield are generally unremunerative. Now, there is no way of raising the temperature of wet soils and of securing the mechanical conditions necessary to efficient cultivation, and consequently to profitable production, than by artificial draining. Assuming that the necessity of this is generally understood, there are a few other points of much significance, such as aeration, absorption and evaporation, in order to secure a higher and more uniform temperature of the soil.

If we take, for example, the management of heavy clay land, under drained when required, the first object should be to bring the soil into such a state of mechanical division as to allow the freest circulation of air through all its interstices, thereby retaining sufficient moisture, without the injurious effects of a superabundance, and to increase as far as possible its power of absorbing and retaining heat. In order to effect these objects, deep and uniform culture is essentially requisite. Heavy land is best cultivated in the fall, when in as dry a condition as is compatible with the efficient performance of the work. As a general thing the bringing of any portion of the stiff subsoil to the surface should be avoided, and for this and other reasons the grubber is a more desirable implement than the plough. When a great depth of tilth is required, (as in most cases is to be preferred) a furrow of nine or ten inches deep made by the ordinary plough, followed by a subsoil plough reaching another seven or eight inches, is the best and easiest method of preparation.

It is of course impossible to lay down a general and unbending rule on the subject of cultivating land, as soils, seasons, and other circumstances differ so much. Heavy clay land, however well under drained, should never, if practicable, have horses to pass over it, unless the