

THE EDUCATIONALIST

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THE EDUCATIONALIST.

DECEMBER 1, 1860.

THE EDUCATIONALIST has now been a few weeks in the hands of our subscribers, and we feel much encouraged by the flattering notices which it has received from journalists, whose opinion inspires us with renewed energy in our enterprise. Our Periodical is still in its infancy, and the manager has not been able to give all his time, or, indeed, a medium portion of it to its superintendence. Subscribers have had to be sought for over the country, and much time has thus been occupied in travelling which will in a few weeks be bestowed upon the journal.

In the mean time we desire most gratefully to thank all our subscribers and friends for the encouragement we have received, and we shall endeavor to show our gratitude by making the EDUCATIONALIST worthy of their support.

Although some expressed fears that we could not succeed, we are happy to state that we have found a spirit and taste in all places which we have visited, that warrant us to conclude that Canada is not behind older countries in a desire to promote the progress of intelligence and liberal education. In fact, we feel rather elated with the success we have hitherto experienced, and we have no doubt, from our success during the few weeks past, that the EDUCATIONALIST will finally reach that high standard which a young, flourishing, and enterprising country demands, and which its recent prosperity and rapidly increasing material resources enable it to sustain.

To School Teachers—to whom the columns of the EDUCATIONALIST are always open—we desire to express our thanks, for the successful efforts they have made to increase our circulation. Indeed the interest which teachers generally have taken to obtain subscribers, manifests that they are imbued with the spirit of their honorable profession, as all their efforts have been purely gratuitous. We are happy also to state that the sons of our farmers, who are emphatically the aristocracy of every country, have been most willing, when we have called upon them, to aid us in enlarging our lists. Phrenologically speaking, our organ of hope is not extravagantly large but we have confidence in the good taste,—the liberality and the public spiritedness of the men who have with almost superhuman energy and rapidity converted the wilderness into fruitful fields, and made our beloved Canada the admiration of strangers from the far and cultivated east and the sunny south.

THE PRACTICE OF DRAINING.

Land is affected by water in several different ways, and different methods and machinery are used to get rid of it under different circumstances.

1st. In case where land is situated so low as to be permanently or occasionally flooded by freshes from rivers running through it, tides, or other circumstances.

2nd. From water running upward through the soil, as springs caused by the pressure or height of the column of water in some other place.

3rd. From the nature of the subsoil being so impermeable as not to allow the water that has fallen from the clouds to descend through it, consequently the land, or cultivated soil, remains for a long time in a saturated and overcharged state, utterly unfit for growing plants.

5th. Where the upper surface of the soil is beaten, by the action of the rain, into a puddled covering, in which all the interstices are stopped up, and consequently no air can get down to the plants.

The drainage of land affected in these various ways by water, is a subject of great interest to the practical agriculturist.

To the skill and enterprise put forth in draining the whole country of Holland has been earned from the sea, and is kept as dry and fruitful land by works erected for the purpose. In Lincolnshire, and other counties in England, works of similar character have been constructed, and some of the now most highly cultivated districts were but a few years before dreary wastes. These works consist of immense canals, called levels, where outfalls are cut into the sea, or in great estuaries; the channels of these canals are considerably above the surrounding country, consequently all the water upon it has to be pumped up into them.

The districts in Holland contained between certain of these canals are called the Polders, and each polder has a certain amount of machinery employed to drain it, and is governed and taxed in a systematical manner for the benefit of those whose lands are contained within its boundaries.

The machinery employed in Holland for lifting the water into the canals consists generally of a windmill and scoop-wheel.

All over Holland may be seen those mills busily engaged in unwatering the land; and in Lincolnshire much of the country is drained in a similar manner.—The Deanston or general mode of draining we will discuss in future numbers of the EDUCATIONALIST.

THE PLANET VENUS, OR THE MORNING AND EVENING STAR.

The diameter of Venus is nearly equal to that of the earth, and nearly three times as great as Mercury.

Distance 68,000,000 miles from the sun.

One of the most interesting objects of telescopic inquiry regarding the condition of the planets, is the question as to their diurnal motion.

The general mode of ascertaining the diurnal or daily motion of a planet, is by examining, with powerful telescopes, the marks observable upon the disk of the planet.

But the disks of Mercury and Venus present no permanent remarks.

For a long time this circumstance seemed to baffle all attempts to ascertain the rotation of these planets accurately. At length a circumstance, apparently accidental, led Cassini and Shroeter to the discovery of the fact of the rotation of Venus on its axis.

The discovery was effected by observing that the points of the horns of the crescent of Venus were at certain moments cut off square, and after a certain time would recover their sharpness. This was found to take place nearly at the same time each successive evening and morning. The cause was soon ascertained. In a certain part of the surface of the planet a lofty mountain flung its shadow across the region which formed a point to the horn. The diurnal rotation of the planet soon carried this point into another position, so that the shadow disappeared and allowed the horn of the crescent to recover its sharpness.—Each time that the horn became thus blunted it was ascertained that the mountain had returned to the same position, and consequently that the planet must have completed one revolution on its axis. It is a remarkable fact that the same circumstance was found to take place in the instance of the planet Mercury, and the result has been that the two planets have been ascertained to have a diurnal rotation—Mercury in 24 hours, 5 minutes, and 28 seconds; Venus, 28 hours, 21 minutes, and 7 seconds. Thus it appears that day and night in these planets is regulated by the same interval as the earth.