er latitudes, this moss may be said to support some millions of mankind."

But in our own latitude, when the snow falls so early as to cover the earth before it has become frozen, all the perennial plants slowly vegetate under the snow; their roots send some new rootlets into the earth, and are thus prepared to vegetate with extraordinary quickness, on the arrival of spring. The rapidity of vegetation that occurs on the melting of the snows in the Arctic regions is undoubtedly attributable to this cause; and not to the severer cold to which they have been exposed. The plants during winter, while covered with a deep bed of snow, are constantly increasing in vitality; but when exposed, as in open winters in our own climate, to alternate freezing and thawing, the plants become exhausted of their vitality, and when spring opens, they vegetate slowly, because they cannot all at once recover from alternate heat and cold.

This explains why our winter grains—such as wheat or rye—usually flourish so well after a winter when the ground has been constantly covered with snow; for, as we have already observed, the plants have been all the time increasing in vitality, and when exposed in the spring, are green, vigorous, and start at once into a rapid growth. Some critical observers have also thought that young fruit trees, during such a winter, continue more plump, and are in better condition in the spring. It is certain that the sharp winter winds rob some plants of their moisture, and that slightly covering half-hardy shrubs, and such fruit plants as the raspberry and blackberry, with leaves or earth, has the same effect as a covering of snow.

It is not unusual in our climate for quails and patridges to be buried in the snow, sometimes during several days; in this way they are preserved from the severity of the storm while it continues: after which they emerge into the light and air. Sometimes a thick incrustatian of ice upon the surface prevents their escape and causes them to perish.—These are a few of *the uses and influences of Snow*,—but the subject is worthy of further and careful consideration.

THE NEW SENATOR FROM CALIFORNIA.

Senator Broderick is a striking illustration of the saying of Talleyrand, that nothing is successful in this world but success. Mr. Broderick left here some six or seven years since to seek his fortune in California, after having made an unsuccessful attempt to be elected a member of Congress. He had been a stone-cutter, a porter-house-keeper, and foreman of an engine company, employments which indicated plenty of bodily stamina, but not exactly the qualities to fit a youth for the duties of a Senator.

However, it is one of the blessings of a free country that anybody may be anything, and Mr. Broderick, who has heretofore been better known as *Dave*, keeping this in mind, determined to be a United-States Senator. By virtue of good engineering and perseverance, he has succeeded in his aims, and on his return to his native city, he is saluted with the welcome of a hundred guns.

We have never heard of any eminent services or brilliant exploits rendered by Mr. Broderick in California. But what of that? He has shown himself abundantly capable of taking care of himself; he is a Senator for six years, and that is sufficient. Yesterday he held a levee in the Governor's Rooms of the City Hall, and a flock of distinguished gentlemen, ex-Senators, Governors, Judges, and admirers of success generally, paid their respects to him, none of whom thought it worth while to bid him God speed when he set off on his adventures.

Senator Broderick we believe to be about the best man of his party who could have been elected, and those that know him best entertain the best opinion of his abilities. We hope he will not disappoint their expectations.—*N. Y. Times, 17th.*

MANUFACTURE OF MAPLE SUGAR.

In the first place I make my buckets, tubs, and kettles all perfectly clean. I boil the sap in a potash kettle set in an arch in such a manner that the edge of the kettle is defended all round from the fire. I boil through the day, taking care not to have anything in the kettle that will give colour to the sap, and to keep it well skimmed. At night I leave fire enough under the kettle to boil the sap nearly or quite to syrup by the next morning. I then take it out of the kettle and strain it through a flannel cloth into a tub, if it is sweet enough; if not, I put it in a caldron kettle, which I have hung on a hole in such a manner that I can swing it on and off the fire at pleasure, and boil it till it is sweet enough, and then strain it into the tub and let it stand till the next morning. I then take it and the syrup in the kettle and put it altogether into the caldron and sugar it off. I use to clarify, say 100 lbs. of sugar, the whites of five or six eggs well beaten, about one quart of new milk and a spoonful of saleratus, all well mixed with the syrup before it is scalding hot. I then make a moderate fire directly under the caldron, until the scum is all raised, then skim it off clean, taking care not to let it boil so as to rise in the kettle before I have done skimming it. I then sugar it off, leaving it so damp that it will drain a little. I let it remain in the kettle until it is well granulated; I then put it into boxes made smallest at the bottom, that will hold from 50 to 80 pounds, having a thin piece of board fitted in 2 or 3 inches above the bottom, which is bored full of small holes to let the molasses drain through, which I keep drawn off by a tap through the bottom. I put on the sugar in the box a damp clean cloth, and over that a board well fitted in, so as to exclude the air from the sugar. After it has done or nearly done draining, I dissolve it and sugar it off again, going through with the same process in clarifying and draining as before.

J. WOODWORTH.

Watertown.

CHILDREN MUST DO IT THEMSELVES.

If I were to reduce to a single maxim the concentrated wisdom of the world, on the subject of practical education, I should but enunciate a proposition, which I think will command your assent, but which, I fear, is not incorporated as it should be, into the practice of schools and families. That principle is, that, in educating the young, you serve them most effectually, not by what you do for them, but by what you teach them to do themselves. This is the secret of all educational development. We talk of self-education as if it were an anomaly. In one sense of the word, all education is obtained simply by the exertion of our own minds. And is this self-education? What does education mean? Not inducation.

The popular opinion seems to be, that education is putting something into the mind of a child, by exercising merely its powres of receptibility—its memory. I say *nay*, NAY. The great principle on which a child should be educated, is not that of reception, but rather that of action, and it ever will remain uneducated in the highest sense, so long as its higher mental powers remain inert. One man may lead a